



## Dy-Mark Spray & Mark - All colours (LPG new formula)

### Dy-Mark

Chemwatch: 5495-51

Version No: 4.1

Safety Data Sheet according to Work Health and Safety Regulations (Hazardous Chemicals) 2023 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 23/01/2025

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S.GHS.AUS.EN.E

## SECTION 1 Identification of the substance / mixture and of the company / undertaking

### Product Identifier

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                  | Dy-Mark Spray & Mark - All colours (LPG new formula)                                                                                                                                                                                                                                                                                                                                                           |
| Chemical Name                 | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                 |
| Synonyms                      | 40013501 Black, 40013502 Red, 40013503 Blue, 40013504 Green, 40013505 Yellow, 40013506 Orange, 40013509 Cream, 40013511 White, 40013513 Grey, 40013522 Fluoro Red, 40013523 Fluoro Blue, 40013524 Fluoro Green, 40013525 Fluoro Yellow, 40013526 Fluoro Orange, 40013528 Fluoro Violet, 40013529 Fluoro Pink, 40013558 Violet, 40011203 Blue Trade pack, 40011205 Yellow Trade pack, 40011211 White Trade pack |
| Proper shipping name          | AEROSOLS                                                                                                                                                                                                                                                                                                                                                                                                       |
| Chemical formula              | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                 |
| Other means of identification | Not Available                                                                                                                                                                                                                                                                                                                                                                                                  |

### Relevant identified uses of the substance or mixture and uses advised against

|                          |                                                                                                                                          |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Relevant identified uses | Aerosol spray paint.<br>Use according to manufacturer's directions.<br>Application is by spray atomisation from a hand held aerosol pack |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------|

### Details of the manufacturer or supplier of the safety data sheet

|                         |                                                                   |
|-------------------------|-------------------------------------------------------------------|
| Registered company name | Dy-Mark                                                           |
| Address                 | 89 Formation Street Wacol QLD 4076 Australia                      |
| Telephone               | +61 7 3327 3004                                                   |
| Fax                     | +61 7 3327 3009                                                   |
| Website                 | <a href="https://www.dymark.com.au">https://www.dymark.com.au</a> |
| Email                   | info@dymark.com.au                                                |

### Emergency telephone number

|                                     |                 |
|-------------------------------------|-----------------|
| Association / Organisation          | Dy-Mark         |
| Emergency telephone number(s)       | +61 7 3327 3099 |
| Other emergency telephone number(s) | Not Available   |

## SECTION 2 Hazards identification

### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

#### Chemwatch Hazard Ratings



|              | Min | Max |
|--------------|-----|-----|
| Flammability | 4   |     |
| Toxicity     | 1   |     |
| Body Contact | 2   |     |
| Reactivity   | 1   |     |
| Chronic      | 0   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                               |                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poisons Schedule              | Not Applicable                                                                                                                                                                                                               |
| Classification <sup>[1]</sup> | Aerosols, Hazard Category 1, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 3 |
| Legend:                       | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                                                          |

### Label elements

## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                     |                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictogram(s) |   |
| Signal word         | Danger                                                                                                                                                              |

## Hazard statement(s)

|           |                                                                          |
|-----------|--------------------------------------------------------------------------|
| H222+H229 | Extremely flammable aerosol. Pressurized container: may burst if heated. |
| H319      | Causes serious eye irritation.                                           |
| H336      | May cause drowsiness or dizziness.                                       |
| H412      | Harmful to aquatic life with long lasting effects.                       |
| AUH019    | May form explosive peroxides.                                            |
| AUH044    | Risk of explosion if heated under confinement.                           |
| AUH066    | Repeated exposure may cause skin dryness and cracking.                   |

## Precautionary statement(s) Prevention

|      |                                                                                                |
|------|------------------------------------------------------------------------------------------------|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source.                                        |
| P251 | Do not pierce or burn, even after use.                                                         |
| P271 | Use only outdoors or in a well-ventilated area.                                                |
| P261 | Avoid breathing mist/vapours/spray.                                                            |
| P273 | Avoid release to the environment.                                                              |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection.               |
| P264 | Wash all exposed external body areas thoroughly after handling.                                |

## Precautionary statement(s) Response

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312           | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.                                                            |
| P337+P313      | If eye irritation persists: Get medical advice/attention.                                                                        |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |

## Precautionary statement(s) Storage

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| P405      | Store locked up.                                                             |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed.             |

## Precautionary statement(s) Disposal

|      |                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|----------------------------------------------------------------------------------------------------------------------------------|

## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

| CAS No         | %[weight] | Name                                                                                                                                                                                         |
|----------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 67-64-1        | 10-25     | <u>acetone</u>                                                                                                                                                                               |
| 108-65-6       | 8-15      | <u>propylene glycol monomethyl ether acetate, alpha-isomer</u>                                                                                                                               |
| 64-17-5        | 1-5       | <u>ethanol</u>                                                                                                                                                                               |
| 64742-95-6.    | 1-5       | <u>naphtha petroleum, light aromatic solvent</u>                                                                                                                                             |
| Not Available  | balance   | Ingredients determined not to be hazardous                                                                                                                                                   |
| 68476-85-7.    | 20-40     | <u>hydrocarbon propellant</u>                                                                                                                                                                |
| <b>Legend:</b> |           | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available |

## SECTION 4 First aid measures

## Description of first aid measures

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact  | <p>If aerosols come in contact with the eyes:</p> <ul style="list-style-type: none"> <li>▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul> |
| Skin Contact | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                |

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## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|            | <ul style="list-style-type: none"> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                       |
| Inhalation | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul> |
| Ingestion  | <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Indication of any immediate medical attention and special treatment needed

For petroleum distillates

· In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption - decontamination (induced emesis or lavage) is controversial and should be considered on the merits of each individual case; of course the usual precautions of an endotracheal tube should be considered prior to lavage, to prevent aspiration.

· Individuals intoxicated by petroleum distillates should be hospitalized immediately, with acute and continuing attention to neurologic and cardiopulmonary function.

· Positive pressure ventilation may be necessary.

· Acute central nervous system signs and symptoms may result from large ingestions of aspiration-induced hypoxia.

· After the initial episode, individuals should be followed for changes in blood variables and the delayed appearance of pulmonary oedema and chemical pneumonitis. Such patients should be followed for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated.

· Gastrointestinal symptoms are usually minor and pathological changes of the liver and kidneys are reported to be uncommon in acute intoxications.

· Chlorinated and non-chlorinated hydrocarbons may sensitize the heart to epinephrine and other circulating catecholamines so that arrhythmias may occur. Careful consideration of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.

Treat symptomatically.

for simple ketones:

## BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ Monitor and treat, where necessary, for pulmonary oedema.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ **DO NOT use emetics.** Where ingestion is suspected rinse mouth and give up to 200 ml water (5mL/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.
- ▶ Give activated charcoal.

## ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Consider intubation at first sign of upper airway obstruction resulting from oedema.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

## EMERGENCY DEPARTMENT

- ▶ Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- ▶ Positive end-expiratory pressure (PEEP)-assisted ventilation may be required for acute parenchymal injury or adult respiratory distress syndrome.
- ▶ Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

## SECTION 5 Firefighting measures

## Extinguishing media

## SMALL FIRE:

- ▶ Water spray, dry chemical or CO2

## LARGE FIRE:

- ▶ Water spray or fog.

## Special hazards arising from the substrate or mixture

|                      |                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Incompatibility | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|

## Advice for firefighters

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Fighting         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul> |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are highly flammable.</li> <li>▶ Severe fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

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|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | <ul style="list-style-type: none"> <li>▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition with violent container rupture.</li> <li>▶ Aerosol cans may explode on exposure to naked flames.</li> <li>▶ Rupturing containers may rocket and scatter burning materials.</li> <li>▶ Hazards may not be restricted to pressure effects.</li> <li>▶ May emit acrid, poisonous or corrosive fumes.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</p> |
| HAZCHEM | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## SECTION 6 Accidental release measures

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▶ Shut off all possible sources of ignition and increase ventilation.</li> <li>▶ Wipe up.</li> <li>▶ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>▶ Undamaged cans should be gathered and stowed safely.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                            |
| Major Spills | <ul style="list-style-type: none"> <li>▶ Clear area of personnel and move upwind.</li> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li> <li>▶ No smoking, naked lights or ignition sources.</li> <li>▶ Increase ventilation.</li> <li>▶ Stop leak if safe to do so.</li> <li>▶ Water spray or fog may be used to disperse / absorb vapour.</li> <li>▶ Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>▶ If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>▶ Undamaged cans should be gathered and stowed safely.</li> <li>▶ Collect residues and seal in labelled drums for disposal.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

## Precautions for safe handling

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling | <p>The conductivity of this material may make it a static accumulator. A liquid is typically considered nonconductive if its conductivity is below 100 pS/m and is considered semi-conductive if its conductivity is below 10 000 pS/m. Whether a liquid is nonconductive or semi-conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, and anti-static additives can greatly influence the conductivity of a liquid.</p> <p>The tendency of many ethers to form explosive peroxides is well documented. Ethers lacking non-methyl hydrogen atoms adjacent to the ether link are thought to be relatively safe</p> <ul style="list-style-type: none"> <li>▶ <b>DO NOT concentrate by evaporation, or evaporate extracts to dryness, as residues may contain explosive peroxides with DETONATION potential.</b></li> <li>▶ Any static discharge is also a source of hazard.</li> <li>▶ Before any distillation process remove trace peroxides by shaking with excess 5% aqueous ferrous sulfate solution or by percolation through a column of activated alumina.</li> <li>▶ Distillation results in uninhibited ether distillate with considerably increased hazard because of risk of peroxide formation on storage.</li> <li>▶ Add inhibitor to any distillate as required.</li> <li>▶ When solvents have been freed from peroxides by percolation through columns of activated alumina, the absorbed peroxides must promptly be desorbed by treatment with polar solvents such as methanol or water, which should then be disposed of safely.</li> </ul> <p>The substance accumulates peroxides which may become hazardous only if it evaporates or is distilled or otherwise treated to concentrate the peroxides. The substance may concentrate around the container opening for example.</p> <p>Purchases of peroxidisable chemicals should be restricted to ensure that the chemical is used completely before it can become peroxidised.</p> <ul style="list-style-type: none"> <li>▶ A responsible person should maintain an inventory of peroxidisable chemicals or annotate the general chemical inventory to indicate which chemicals are subject to peroxidation. An expiration date should be determined. The chemical should either be treated to remove peroxides or disposed of before this date.</li> <li>▶ The person or laboratory receiving the chemical should record a receipt date on the bottle. The individual opening the container should add an opening date.</li> <li>▶ Unopened containers received from the supplier should be safe to store for 18 months.</li> <li>▶ Opened containers should not be stored for more than 12 months.</li> <li>▶ Avoid all personal contact, including inhalation.</li> <li>▶ Wear protective clothing when risk of exposure occurs.</li> <li>▶ Use in a well-ventilated area.</li> <li>▶ Prevent concentration in hollows and sumps.</li> <li>▶ <b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>▶ Avoid smoking, naked lights or ignition sources.</li> <li>▶ Avoid contact with incompatible materials.</li> <li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li> <li>▶ <b>DO NOT incinerate or puncture aerosol cans.</b></li> <li>▶ <b>DO NOT spray directly on humans, exposed food or food utensils.</b></li> <li>▶ Avoid physical damage to containers.</li> <li>▶ Always wash hands with soap and water after handling.</li> <li>▶ Work clothes should be laundered separately.</li> </ul> |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

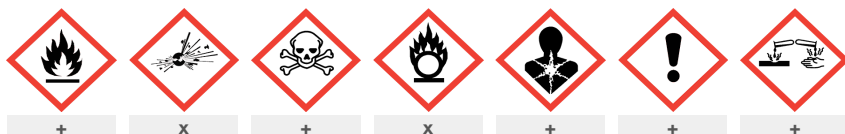
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## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <ul style="list-style-type: none"> <li>▶ Use good occupational work practice.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Other information | <ul style="list-style-type: none"> <li>▶ Store below 38 deg. C.</li> <li>▶ Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>▶ Store in original containers in approved flammable liquid storage area.</li> <li>▶ <b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>▶ No smoking, naked lights, heat or ignition sources.</li> <li>▶ Keep containers securely sealed. Contents under pressure.</li> <li>▶ Store away from incompatible materials.</li> <li>▶ Store in a cool, dry, well ventilated area.</li> <li>▶ Avoid storage at temperatures higher than 40 deg C.</li> <li>▶ Store in an upright position.</li> <li>▶ Protect containers against physical damage.</li> <li>▶ Check regularly for spills and leaks.</li> <li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul> |

## Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"> <li>▶ Aerosol dispenser.</li> <li>▶ Check that containers are clearly labelled.</li> </ul> |
| Storage incompatibility | <ul style="list-style-type: none"> <li>▶ Avoid reaction with oxidising agents</li> </ul>                                      |



X — Must not be stored together

O — May be stored together with specific precautions

+ — May be stored together

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                       | Ingredient                                              | Material name                 | TWA                   | STEL                  | Peak          | Notes         |
|------------------------------|---------------------------------------------------------|-------------------------------|-----------------------|-----------------------|---------------|---------------|
| Australia Exposure Standards | acetone                                                 | Acetone                       | 500 ppm / 1185 mg/m3  | 2375 mg/m3 / 1000 ppm | Not Available | Not Available |
| Australia Exposure Standards | propylene glycol monomethyl ether acetate, alpha-isomer | 1-Methoxy-2-propanol acetate  | 50 ppm / 274 mg/m3    | 548 mg/m3 / 100 ppm   | Not Available | Not Available |
| Australia Exposure Standards | ethanol                                                 | Ethyl alcohol                 | 1000 ppm / 1880 mg/m3 | Not Available         | Not Available | Not Available |
| Australia Exposure Standards | hydrocarbon propellant                                  | LPG (liquefied petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available         | Not Available | Not Available |


| Ingredient                                              | Original IDLH | Revised IDLH  |
|---------------------------------------------------------|---------------|---------------|
| acetone                                                 | 2,500 ppm     | Not Available |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available | Not Available |
| ethanol                                                 | Not Available | Not Available |
| naphtha petroleum, light aromatic solvent               | Not Available | Not Available |
| hydrocarbon propellant                                  | Not Available | Not Available |

## Exposure controls

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appropriate engineering controls | <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>▶ Employees exposed to confirmed human carcinogens should be authorized to do so by the employer, and work in a regulated area.</li> <li>▶ Work should be undertaken in an isolated system such as a "glove-box". Employees should wash their hands and arms upon completion of the assigned task and before engaging in other activities not associated with the isolated system.</li> <li>▶ Within regulated areas, the carcinogen should be stored in sealed containers, or enclosed in a closed system, including piping systems, with any sample ports or openings closed while the carcinogens are contained within.</li> <li>▶ Open-vessel systems are prohibited.</li> <li>▶ Each operation should be provided with continuous local exhaust ventilation so that air movement is always from ordinary work areas to the operation.</li> <li>▶ Exhaust air should not be discharged to regulated areas, non-regulated areas or the external environment unless decontaminated. Clean make-up air should be introduced in sufficient volume to maintain correct operation of the local exhaust system.</li> <li>▶ For maintenance and decontamination activities, authorized employees entering the area should be provided with and required to wear clean, impervious garments, including gloves, boots and continuous-air supplied hood. Prior to removing protective garments the employee should undergo decontamination and be required to shower upon removal of the garments and hood.</li> </ul> |
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## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                       | <ul style="list-style-type: none"> <li>Except for outdoor systems, regulated areas should be maintained under negative pressure (with respect to non-regulated areas).</li> <li>Local exhaust ventilation requires make-up air be supplied in equal volumes to replaced air.</li> <li>Laboratory hoods must be designed and maintained so as to draw air inward at an average linear face velocity of 0.76 m/sec with a minimum of 0.64 m/sec. Design and construction of the fume hood requires that insertion of any portion of the employees body, other than hands and arms, be disallowed.</li> </ul>                                                                                                |
| Individual protection measures, such as personal protective equipment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Eye and face protection                                               | <ul style="list-style-type: none"> <li>No special equipment for minor exposure i.e. when handling small quantities.</li> <li>OTHERWISE: For potentially moderate or heavy exposures:</li> <li>Safety glasses with side shields.</li> <li>NOTE: Contact lenses pose a special hazard; soft lenses may absorb irritants and ALL lenses concentrate them.</li> </ul>                                                                                                                                                                                                                                                                                                                                         |
| Skin protection                                                       | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Hands/feet protection                                                 | <p>For esters:</p> <ul style="list-style-type: none"> <li>Do NOT use natural rubber, butyl rubber, EPDM or polystyrene-containing materials.</li> <li>No special equipment needed when handling small quantities.</li> <li>OTHERWISE:</li> <li>For potentially moderate exposures:</li> <li>Wear general protective gloves, eg. light weight rubber gloves.</li> <li>For potentially heavy exposures:</li> <li>Wear chemical protective gloves, eg. PVC. and safety footwear.</li> </ul>                                                                                                                                                                                                                  |
| Body protection                                                       | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Other protection                                                      | <p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <ul style="list-style-type: none"> <li>Overalls.</li> <li>Skin cleansing cream.</li> <li>Eyewash unit.</li> <li>Do not spray on hot surfaces.</li> <li>The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.</li> <li>Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> <p>BRETHERRICK: Handbook of Reactive Chemical Hazards.</p> |

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Dy-Mark Spray & Mark - All colours (LPG new formula)

| Material         | CPI |
|------------------|-----|
| BUTYL            | A   |
| PE/EVAL/PE       | A   |
| BUTYL/NEOPRENE   | C   |
| CPE              | C   |
| HYPALON          | C   |
| NATURAL RUBBER   | C   |
| NATURAL+NEOPRENE | C   |
| NEOPRENE         | C   |
| NITRILE          | C   |
| NITRILE+PVC      | C   |
| PVA              | C   |
| PVC              | C   |
| PVDC/PE/PVDC     | C   |
| SARANEX-23       | C   |
| SARANEX-23 2-PLY | C   |
| TEFLON           | C   |
| VITON/NEOPRENE   | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator   |
|------------------------------------|----------------------|----------------------|--------------------------|
| up to 5 x ES                       | AX-AUS / Class 1 P3  | -                    | AX-PAPR-AUS / Class 1 P3 |
| up to 25 x ES                      | Air-line*            | AX-2 P3              | AX-PAPR-2 P3             |
| up to 50 x ES                      | -                    | AX-3 P3              | -                        |
| 50+ x ES                           | -                    | Air-line**           | -                        |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Aerosols, in common with most vapours/ mists, should never be used in confined spaces without adequate ventilation. Aerosols, containing agents designed to enhance or mask smell, have triggered allergic reactions in predisposed individuals.

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

|            |                                                   |
|------------|---------------------------------------------------|
| Appearance | Highly flammable liquid; does not mix with water. |
|------------|---------------------------------------------------|

Continued...

### Dy-Mark Spray & Mark - All colours (LPG new formula)

|                                                       |                               |                                                            |                |
|-------------------------------------------------------|-------------------------------|------------------------------------------------------------|----------------|
| <b>Physical state</b>                                 | Liquid                        | <b>Relative density (Water = 1)</b>                        | Not Available  |
| <b>Odour</b>                                          | Not Available                 | <b>Partition coefficient n-octanol / water</b>             | Not Available  |
| <b>Odour threshold</b>                                | Not Available                 | <b>Auto-ignition temperature (°C)</b>                      | Not Available  |
| <b>pH (as supplied)</b>                               | Not Available                 | <b>Decomposition temperature (°C)</b>                      | Not Available  |
| <b>Melting point / freezing point (°C)</b>            | Not Available                 | <b>Viscosity (cSt)</b>                                     | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b>   | Not Available                 | <b>Molecular weight (g/mol)</b>                            | Not Applicable |
| <b>Flash point (°C)</b>                               | *-81 (hydrocarbon propellant) | <b>Taste</b>                                               | Not Available  |
| <b>Evaporation rate</b>                               | Not Available                 | <b>Explosive properties</b>                                | Not Available  |
| <b>Flammability</b>                                   | HIGHLY FLAMMABLE.             | <b>Oxidising properties</b>                                | Not Available  |
| <b>Upper Explosive Limit (%)</b>                      | Not Available                 | <b>Surface Tension (dyn/cm or mN/m)</b>                    | Not Available  |
| <b>Lower Explosive Limit (%)</b>                      | Not Available                 | <b>Volatile Component (%vol)</b>                           | Not Available  |
| <b>Vapour pressure (kPa)</b>                          | Not Available                 | <b>Gas group</b>                                           | Not Available  |
| <b>Solubility in water</b>                            | Immiscible                    | <b>pH as a solution (1%)</b>                               | Not Available  |
| <b>Vapour density (Air = 1)</b>                       | Not Available                 | <b>VOC g/L</b>                                             | Not Available  |
| <b>Heat of Combustion (kJ/g)</b>                      | Not Available                 | <b>Ignition Distance (cm)</b>                              | Not Available  |
| <b>Flame Height (cm)</b>                              | Not Available                 | <b>Flame Duration (s)</b>                                  | Not Available  |
| <b>Enclosed Space Ignition Time Equivalent (s/m3)</b> | Not Available                 | <b>Enclosed Space Ignition Deflagration Density (g/m3)</b> | Not Available  |

#### SECTION 10 Stability and reactivity

|                                           |                                                                                                                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | See section 7                                                                                                                                                                                              |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▶ Elevated temperatures.</li> <li>▶ Presence of open flame.</li> <li>▶ Product is considered stable.</li> <li>▶ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7                                                                                                                                                                                              |
| <b>Conditions to avoid</b>                | See section 7                                                                                                                                                                                              |
| <b>Incompatible materials</b>             | See section 7                                                                                                                                                                                              |
| <b>Hazardous decomposition products</b>   | See section 5                                                                                                                                                                                              |

#### SECTION 11 Toxicological information

##### Information on toxicological effects

|                                             |                                                                                                            |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>a) Acute Toxicity</b>                    | Based on available data, the classification criteria are not met.                                          |
| <b>b) Skin Irritation/Corrosion</b>         | Based on available data, the classification criteria are not met.                                          |
| <b>c) Serious Eye Damage/Irritation</b>     | There is sufficient evidence to classify this material as eye damaging or irritating                       |
| <b>d) Respiratory or Skin sensitisation</b> | Based on available data, the classification criteria are not met.                                          |
| <b>e) Mutagenicity</b>                      | Based on available data, the classification criteria are not met.                                          |
| <b>f) Carcinogenicity</b>                   | Based on available data, the classification criteria are not met.                                          |
| <b>g) Reproductivity</b>                    | Based on available data, the classification criteria are not met.                                          |
| <b>h) STOT - Single Exposure</b>            | There is sufficient evidence to classify this material as toxic to specific organs through single exposure |
| <b>i) STOT - Repeated Exposure</b>          | Based on available data, the classification criteria are not met.                                          |
| <b>j) Aspiration Hazard</b>                 | Based on available data, the classification criteria are not met.                                          |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhaled</b> | <p>The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>Isobutane produces a dose dependent action and at high concentrations may cause numbness, suffocation, exhalation, dizziness, headache, nausea, confusion, incoordination and unconsciousness in severe cases.</p> <p>The main effects of simple esters are irritation, stupor and insensibility. Headache, drowsiness, dizziness, coma and behavioural changes may occur.</p> <p>Animal testing shows that the most common signs of inhalation overdose is inco-ordination and drowsiness.</p> <p>The paraffin gases are practically not harmful at low doses. Higher doses may produce reversible brain and nerve depression and irritation.</p> <p>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> <li>▶ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;</li> <li>▶ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;</li> <li>▶ heart: collapse, irregular heartbeats and cardiac arrest;</li> <li>▶ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.</li> </ul> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p>Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.</p> |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...



## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                     | <p>On exposure to mixed trimethylbenzenes, some people may become nervous, tensed, anxious and have difficult breathing. There may be a reduction red blood cells and bleeding abnormalities. There may also be drowsiness.</p> <p>Nerve damage can be caused by some non-ring hydrocarbons. Symptoms are temporary, and include weakness, tremors, increased saliva, some convulsions, excessive tears with discolouration and inco-ordination lasting up to 24 hours.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>Animal testing showed no toxic effects from inhaling PGMEA except at very high concentrations. A concentration of 1000 parts per million (0.1%) caused no effects.</p> <p>The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur.</p> <p>Alkylbenzenes are not generally toxic except at high levels of exposure. Their breakdown products have low toxicity and are easily eliminated from the body.</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> <p>Exposure to hydrocarbons may result in irregularity of heart beat. Symptoms of moderate poisoning may include dizziness, headache, nausea.</p> |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|----------|-------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ingestion           | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Ingestion of ethanol (ethyl alcohol, "alcohol") may produce nausea, vomiting, bleeding from the digestive tract, abdominal pain, and diarrhoea. Effects on the body:</p> <table> <tr> <th>Blood concentration</th><th>Effects</th></tr> <tr> <td>&lt;1.5 g/L</td><td>Mild: impaired vision, co-ordination and reaction time; emotional instability</td></tr> <tr> <td>1.5-3.0 g/L</td><td>Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium. Central nervous system depression may progress to coma.</td></tr> <tr> <td>3-5 g/L</td><td>Severe: cold clammy skin, low body temperature and low blood pressure. Atrial fibrillation and heart block have been reported. Depression of breathing may occur, respiratory failure may follow serious poisoning, choking on vomit may result in lung inflammation and swelling. Convulsions due to severe low blood sugar may also occur. Acute liver inflammation may develop.</td></tr> </table> <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Isoparaffinic hydrocarbons cause temporary lethargy, weakness, inco-ordination and diarrhoea.</p>                                                                                                                                                                                                                                                                                               | Blood concentration | Effects | <1.5 g/L | Mild: impaired vision, co-ordination and reaction time; emotional instability | 1.5-3.0 g/L | Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium. Central nervous system depression may progress to coma. | 3-5 g/L | Severe: cold clammy skin, low body temperature and low blood pressure. Atrial fibrillation and heart block have been reported. Depression of breathing may occur, respiratory failure may follow serious poisoning, choking on vomit may result in lung inflammation and swelling. Convulsions due to severe low blood sugar may also occur. Acute liver inflammation may develop. |
| Blood concentration | Effects                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| <1.5 g/L            | Mild: impaired vision, co-ordination and reaction time; emotional instability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| 1.5-3.0 g/L         | Moderate: Slurred speech, confusion, inco-ordination, emotional instability, disturbances in perception and senses, possible blackouts, and impaired objective performance in standardized tests. Possible double vision, flushing, fast heart rate, sweating and incontinence. Slow breathing may occur rarely and fast breathing may develop in cases of metabolic acidosis, low blood sugar and low blood potassium. Central nervous system depression may progress to coma.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| 3-5 g/L             | Severe: cold clammy skin, low body temperature and low blood pressure. Atrial fibrillation and heart block have been reported. Depression of breathing may occur, respiratory failure may follow serious poisoning, choking on vomit may result in lung inflammation and swelling. Convulsions due to severe low blood sugar may also occur. Acute liver inflammation may develop.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| Skin Contact        | <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Skin exposure to isoparaffins may produce slight to moderate irritation in animals and humans. Rare sensitisation reactions in humans have occurred.</p> <p>Animal testing showed repeated application of commercial grade PGMEA to skin caused slight redness and very mild exfoliation.</p> <p>Spray mist may produce discomfort</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.</p> <p>There is some evidence to suggest that the material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| Eye                 | <p>Direct contact of the eye with ethanol (alcohol) may cause an immediate stinging and burning sensation, with reflex closure of the lid, and a temporary, tearing injury to the cornea together with redness of the conjunctiva. Discomfort may last 2 days but usually the injury heals without treatment.</p> <p>Instillation of isoparaffins into rabbit eyes produces only slight irritation.</p> <p>Not considered to be a risk because of the extreme volatility of the gas.</p> <p>Undiluted propylene glycol monomethyl ether acetate (PGMEA) causes moderate discomfort, slight redness of the conjunctiva and slight injury to the cornea in animal testing.</p> <p>There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation.</p> <p>Severe inflammation may be expected with pain.</p> <p>The liquid may produce eye discomfort and is capable of causing temporary impairment of vision and/or transient eye inflammation, ulceration</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |
| Chronic             | <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Some glycol esters and their ethers cause wasting of the testicles, reproductive changes, infertility and changes to kidney function. Shorter chain compounds are more dangerous.</p> <p>Prolonged exposure to ethanol may cause damage to the liver and cause scarring. It may also worsen damage caused by other agents.</p> <p>Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin.</p> <p>Animal testing shows repeated exposure to higher concentrations of propylene glycol monomethyl ether acetate (PGMEA) causes mild liver and kidney damage. The beta-isomer, a minor component, may cause birth defects if PGMEA is inhaled during pregnancy. Otherwise, PGMEA has not been shown to have developmental toxicity. It may damage the foetus but only at levels that are also toxic to the mother.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>Workers exposed to acetone for long periods showed inflammation of the airways, stomach and small bowel, attacks of giddiness and loss of strength. Exposure to acetone may enhance the liver toxicity of chlorinated solvents.</p> <p><b>WARNING: Aerosol containers may present pressure related hazards.</b></p>                                                                                                                                                                                                                                                      |                     |         |          |                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                                                                                                                                                                                                                                                                                                                                                                                    |



Dy-Mark Spray & Mark - All colours (LPG new formula)

|                                                         |                                                    |                                                                  |
|---------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------|
| Dy-Mark Spray & Mark - All colours (LPG new formula)    | TOXICITY                                           | IRRITATION                                                       |
|                                                         | Not Available                                      | Not Available                                                    |
| acetone                                                 | TOXICITY                                           | IRRITATION                                                       |
|                                                         | Dermal (rabbit) LD50: 20000 mg/kg <sup>[2]</sup>   | Eye (Human): 186300ppm - Mild                                    |
|                                                         | Inhalation (Mouse) LC50: 44 mg/L4h <sup>[2]</sup>  | Eye (Human): 500ppm                                              |
|                                                         | Oral (Rat) LD50: 5800 mg/kg <sup>[2]</sup>         | Eye (Rodent - rabbit): 10uL - Mild                               |
|                                                         |                                                    | Eye (Rodent - rabbit): 20mg - Severe                             |
|                                                         |                                                    | Eye (Rodent - rabbit): 20mg/24H - Moderate                       |
|                                                         |                                                    | Eye: adverse effect observed (irritating) <sup>[1]</sup>         |
|                                                         |                                                    | Skin (Rodent - rabbit): 395mg - Mild                             |
|                                                         |                                                    | Skin (Rodent - rabbit): 500mg/24H - Mild                         |
|                                                         |                                                    | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| propylene glycol monomethyl ether acetate, alpha-isomer | TOXICITY                                           | IRRITATION                                                       |
|                                                         | dermal (rat) LD50: >2000 mg/kg <sup>[1]</sup>      | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                                         | Oral (Rat) LD50: 3739 mg/kg <sup>[2]</sup>         | Skin: no adverse effect observed (not irritating) <sup>[1]</sup> |
| ethanol                                                 | TOXICITY                                           | IRRITATION                                                       |
|                                                         | Dermal (rabbit) LD50: 17100 mg/kg <sup>[1]</sup>   | Eye (Rodent - rabbit): 0.1mL                                     |
|                                                         | Inhalation (Rat) LC50: 64000 ppm4h <sup>[2]</sup>  | Eye (Rodent - rabbit): 100mg/4S - Moderate                       |
|                                                         | Oral (Rat) LD50: 7060 mg/kg <sup>[2]</sup>         | Eye (Rodent - rabbit): 100uL - Moderate                          |
|                                                         |                                                    | Eye (Rodent - rabbit): 500mg - Severe                            |
|                                                         |                                                    | Eye (Rodent - rabbit): 500mg/24H - Mild                          |
|                                                         |                                                    | Eye: adverse effect observed (irritating) <sup>[1]</sup>         |
|                                                         |                                                    | Eye: no adverse effect observed (not irritating) <sup>[1]</sup>  |
|                                                         |                                                    | Skin (Human): 70%/2D                                             |
|                                                         |                                                    | Skin (Rodent - rabbit): 20mg/24H - Moderate                      |
| naphtha petroleum, light aromatic solvent               | TOXICITY                                           | IRRITATION                                                       |
|                                                         | Dermal (rabbit) LD50: >1900 mg/kg <sup>[1]</sup>   | Eye (Rodent - rabbit): 100uL/24H - Mild                          |
|                                                         | Inhalation (Rat) LC50: >4.42 mg/L4h <sup>[1]</sup> |                                                                  |
| hydrocarbon propellant                                  | TOXICITY                                           | IRRITATION                                                       |
|                                                         | Inhalation (Rat) LC50: 658 mg/l4h <sup>[2]</sup>   | Not Available                                                    |

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

|                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACETONE                                                 | For acetone:<br>The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/m3 does not negatively impact an individual's emotional regulation, behaviour, or learning ability.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE, ALPHA-ISOMER | A BASF report (in ECETOC ) showed that inhalation exposure to 545 ppm PGMEA (beta isomer) was associated with a teratogenic response in rabbits; but exposure to 145 ppm and 36 ppm had no adverse effects. The beta isomer of PGMEA comprises only 10% of the commercial material, the remaining 90% is alpha isomer. Hazard appears low but emphasizes the need for care in handling this chemical. [I.C.I] *Shin-Etsu SDS<br>For propylene glycol ethers (PGEs):<br>Typical propylene glycol ethers include propylene glycol n-butyl ether (PnB); dipropylene glycol n-butyl ether (DPnB); dipropylene glycol methyl ether acetate (DPMA) and tripropylene glycol methyl ether (TPM).<br>Testing of a wide variety of propylene glycol ethers has shown that propylene glycol-based ethers are less toxic than some ethers of the ethylene series. The common toxicities associated with the lower molecular weight homologues of the ethylene series, such as adverse effects on the reproductive organs, the developing embryo and foetus, blood or thymus gland, are not seen with the commercial-grade propylene glycol ethers. In the ethylene series, metabolism of the terminal hydroxyl group produces and alkoxyacetic acid. The reproductive and developmental toxicities of the lower molecular weight homologues in the ethylene series are due specifically to the formation of methoxyacetic and ethoxyacetic acids.<br>Longer chain homologues in the ethylene series are not associated with reproductive toxicity, but can cause haemolysis in sensitive species, also through formation of an alkoxyacetic acid. The predominant alpha isomer of all the PGEs (which is thermodynamically favoured during manufacture of PGEs) is a secondary alcohol incapable of forming an alkoxypropionic acid. In contrast, beta-isomers are able to form the alkoxypropionic acids and these are linked to birth defects (and possibly, haemolytic effects). The alpha isomer comprises more than 95% of the isomeric mixture in the commercial product, and therefore PGEs show relatively little toxicity. One of the main metabolites of the propylene glycol ethers is propylene glycol, which is of low toxicity and completely metabolized in the body.<br>As a class, PGEs have low acute toxicity via swallowing, skin exposure and inhalation. PnB and TPM are moderately irritating to the eyes, in animal testing, while the remaining members of this category caused little or no eye irritation. None caused skin sensitization. Animal testing showed that repeat dosing caused few adverse effects. Animal testing also shows that PGEs do not cause skin effects or reproductive toxicity. Commercially available PGEs have not been shown to cause birth defects. Available instance indicates that propylene glycol ethers are unlikely to possess genetic toxicity. |

## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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|                                                  | <p>Generally, linear and branched-chain alkyl esters are hydrolysed to their component alcohols and carboxylic acids in the intestinal tract, blood and most tissues throughout the body. Following hydrolysis the component alcohols and carboxylic acids are metabolized.</p> <p>Oral acute toxicity studies have been reported for 51 of the 67 esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids. The very low oral acute toxicity of this group of esters is demonstrated by oral LD50 values greater than 1850 mg/kg bw.</p> <p>Genotoxicity studies have been performed in vitro using the following esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids: methyl acetate, butyl acetate, butyl stearate and the structurally related isoamyl formate and demonstrates that these substances are not genotoxic.</p> <p>The JEFCA Committee concluded that the substances in this group would not present safety concerns at the current levels of intake. The esters of aliphatic acyclic primary alcohols and aliphatic linear saturated carboxylic acids are generally used as flavouring substances up to average maximum levels of 200 mg/kg. Higher levels of use (up to 3000 mg/kg) are permitted in food categories such as chewing gum and hard candy. In Europe the upper use levels for these flavouring substances are generally 1 to 30 mg/kg foods and in special food categories like candy and alcoholic beverages up to 300 mg/kg foods.</p> <p><b>International Program on Chemical Safety: the Joint FAO/WHO Expert Committee on Food Additives (JECFA)</b><br/> <b>Esters of Aliphatic acyclic primary alcohols with aliphatic linear saturated carboxylic acids.; 1998</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| <b>NAPHTHA PETROLEUM, LIGHT AROMATIC SOLVENT</b> | <p>Inhalation (rat) TCLo: 1320 ppm/6h/90D-I * [Devove]</p> <p>Most Low Boiling Point Naphthas (LBPNS) have low acute toxicity to oral, dermal and inhalation routes of exposure, and mild to moderate skin and eye irritating effects. However, some heavier 'cracked' LBPNS (LKBPNs with greater olefinic content) have been found to be more irritating to the skin and eyes compared to non-cracked LBPNS.</p> <p>LBPNS are not known to be sensitising to the skin.</p> <p>Animal studies examined the effects of short-term and longer-term exposure to LBPNS through inhalation or oral routes. In male rats specifically, exposure to LBPNS resulted in kidney-related issues like increased kidney weight, kidney lesions, and hyaline droplet formation. However, the same effects were not seen in female rats, mice, or humans due to a mechanism of action involving a particular enzyme only found in male rats. Limited studies found that exposure through inhalation caused an increase in liver weight in both male and female rats.</p> <p>Dermal exposure to one specific LBPNS (light cracked naphtha) resulted in skin irritation and changes at low doses in rats. Few studies were available regarding the chronic toxicity of LBPNS, but one study exposed mice and rats to unleaded gasoline (containing 2% benzene) and found ocular and kidney effects at concentrations of 200 mg/m<sup>3</sup> and 6170 mg/m<sup>3</sup>, respectively.</p> <p>Testing of LBPNS genetic effects have shown mixed results when performed using in vitro studies. In vivo studies of LBPNS showed no negative outcomes. Some LBPNS have been shown to cause unusual chromosome formation. Testing of genotoxicity of unleaded gasoline (containing 2% benzene) found that unusual DNA synthesis was induced in mice via oral exposure. Similarly, unleaded gasoline with 2% benzene content resulted in replicative DNA synthesis in rat kidney cells via oral and inhalation exposures. While the majority of in vivo genotoxicity results for LBPNS substances are negative, the potential for genotoxicity of LBPNS as a group cannot be disregarded based on the mixed in vitro genotoxicity results.</p> <p>Limited evidence exists demonstrating the carcinogenicity of skin and blood following exposure to LBPNS. The published studies studying the incidence of cancer due to LBPNS had several limitations, including a lack of exposure data and the inability to definitively exclude the exposure effects of gasoline combustion products from the effects of gasoline itself. Only unleaded gasoline has been examined for its carcinogenic potential in inhalation studies among LBPNS substances. One such study found that inhalation of exposure of unleaded gasoline (2% benzene) resulted in promotion of liver tumours in female mice at an dosage of 6170 mg/m<sup>3</sup> over 2 years, but did not initiate tumour formation. Both the European Commission and the International Agency for Research on Cancer (IARC) have classified LBPNS substances as carcinogenic. All of these substances were classified by the European Commission (2008) as Category 2 carcinogens (benzene content = 0.1% by weight). The IARC has classified gasoline as a Group 2B carcinogen (possibly carcinogenic to humans) and "occupational exposures in petroleum refining" as Group 2A carcinogens (probably carcinogenic to humans). Induction of both benign and malignant tumours has been found following dermal exposure to mice to heavy catalytic cracked naphtha, light catalytic cracked naphtha, light straight-run naphtha and naphtha. On the other hand, insignificant increases in tumour formation or no tumours were observed when light alkylate naphtha, heavy catalytic reformed naphtha, sweetened naphtha, light catalytically cracked naphtha or unleaded gasoline was dermally applied to mice.</p> <p>No reproductive or developmental toxicity was observed for the majority of LBPNS substances evaluated. Most of these studies were carried out by inhalation exposure in rodents. However, developmental toxicity was observed for a few naphthas. Decreased foetus body weight and an increased incidence of bone malformation were observed when female rats were exposed to light aromatized solvent naphtha at 1250mg/kg bodyweight. Another study found that pregnant rats exposed to hydrotreated heavy naphtha (~4500 mg/kg bodyweight) via inhalation birth offspring with greater birth weights, and decreased cognitive and memory ability. For oral exposures, no adverse effects on reproductive parameters were reported when rats were given site-restricted light catalytic cracked naphtha at 2000 mg/kg bodyweight on gestational day 13.</p> <p>Animal studies indicate that normal, branched and cyclic paraffins are absorbed from the gastrointestinal tract and that the absorption of n-paraffins is inversely proportional to the carbon chain length, with little absorption above C30. With respect to the carbon chain lengths likely to be present in mineral oil, n-paraffins may be absorbed to a greater extent than iso- or cyclo-paraffins.</p> <p>The major classes of hydrocarbons are well absorbed into the gastrointestinal tract in various species. In many cases, the hydrophobic hydrocarbons are ingested in association with fats in the diet. Some hydrocarbons may appear unchanged as in the lipoprotein particles in the gut lymph, but most hydrocarbons partly separate from fats and undergo metabolism in the gut cell. The gut cell may play a major role in determining the proportion of hydrocarbon that becomes available to be deposited unchanged in peripheral tissues such as in the body fat stores or the liver.</p> <p>For trimethylbenzenes:</p> <p>Absorption of 1,2,4-trimethylbenzene occurs after exposure by swallowing, inhalation, or skin contact. In the workplace, inhalation and skin contact are the most important routes of absorption; whole-body toxic effects from skin absorption are unlikely to occur as the skin irritation caused by the chemical generally leads to quick removal. The substance is fat-soluble and may accumulate in fatty tissues. It is also bound to red blood cells in the bloodstream. It is excreted from the body both by exhalation and in the urine.</p> <p>Acute toxicity: Direct contact with liquid 1,2,4-trimethylbenzene is irritating to the skin, and breathing the vapour is irritating to the airway, causing lung inflammation. Breathing high concentrations of the chemical vapour causes headache, fatigue and drowsiness. In humans, liquid 1,2,4-trimethylbenzene is irritating to the skin and inhalation of the vapour causes chemical pneumonitis. Direct skin contact causes dilation of blood vessels, redness and irritation.</p> <p>Nervous system toxicity: 1,2,4-trimethylbenzene depresses the central nervous system. Exposure to solvent mixtures in the workplace containing the chemical causes headache, fatigue, nervousness and drowsiness.</p> <p>Subacute/chronic toxicity: Long-term exposure to solvents containing 1,2,4-trimethylbenzene may cause nervousness, tension and inflammation of the bronchi. Painters that worked for several years with a solvent containing 50% 1,2,4-trimethylbenzene and 30% 1,3,5-trimethylbenzene showed nervousness, tension and anxiety, asthmatic bronchitis, anaemia and changes in blood clotting; blood effects may have been due to trace amounts of benzene. Animal testing showed that inhaling trimethylbenzene may alter blood counts, with reduction in lymphocytes and an increase in neutrophils.</p> <p>Genetic toxicity: Animal testing does not show that the C9 fraction causes mutations or chromosomal aberrations.</p> <p>Developmental / reproductive toxicity: Animal testing showed that the C9 fraction of 1,2,4-trimethylbenzene caused reproductive toxicity. For C9 aromatics (typically trimethylbenzenes – TMBs)</p> <p>Acute toxicity: Animal testing shows that semi-lethal concentrations and doses vary amongst this group. The semilethal concentrations for inhalation range from 6000 to 10000 mg/cubic metre for C9 aromatic naphtha and 18000-24000 mg/cubic metre for 1,2,4- and 1,3,5-TMB, respectively.</p> <p>Irritation and sensitization: Results from animal testing indicate that C9 aromatic hydrocarbon solvents are mildly to moderately irritating to the skin, minimally irritating to the eye, and have the potential to irritate the airway and cause depression of breathing rate. There is no evidence that it sensitizes skin.</p> <p>Repeated dose toxicity: Animal studies show that chronic inhalation toxicity for C9 aromatic hydrocarbon solvents is slight. Similarly, oral exposure does not appear to pose a high toxicity hazard for pure trimethylbenzene isomers.</p> <p>Mutation-causing ability: No evidence of mutation-causing ability and genetic toxicity was found in animal and laboratory testing.</p> <p>Reproductive and developmental toxicity: No definitive effects on reproduction were seen, although reduction in weight in developing animals may be seen at concentrations that are toxic to the mother.</p> <p>Petroleum contains aromatic (benzene, toluene, ethyl benzene, naphthalene) and aliphatic hydrocarbons (n-hexane), which can result in many detrimental health effects, including, cancer, tumour formation, hearing loss, and nervous system toxicity.</p> |

## Dy-Mark Spray &amp; Mark - All colours (LPG new formula)

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |   |  |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---|--|
|                                          | Animal testing shows breathing in petroleum causes tumours of the liver and kidney; these are however not considered to be relevant in humans. Similarly, exposure to gasoline over a lifetime can cause kidney cancer in animals, but the relevance in humans is questionable. Most studies involving gasoline have shown that gasoline does not cause genetic mutation, including all recent studies in living human subjects (such as in petrol service station attendants). Animal studies show concentrations of toluene (>0.1%) can cause developmental effects such as lower birth weight and developmental toxicity to the nervous system of the foetus. Other studies show no adverse effects on the foetus. Prolonged contact with petroleum may result in skin inflammation and make the skin more sensitive to irritation and penetration by other materials. |                                 |   |  |
| <b>HYDROCARBON PROPELLANT</b>            | No significant acute toxicological data identified in literature search. inhalation of the gas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |   |  |
| <b>ACETONE &amp; ETHANOL</b>             | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |   |  |
| <b>Acute Toxicity</b>                    | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Carcinogenicity</b>          | ✗ |  |
| <b>Skin Irritation/Corrosion</b>         | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Reproductivity</b>           | ✗ |  |
| <b>Serious Eye Damage/Irritation</b>     | ✓                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>STOT - Single Exposure</b>   | ✓ |  |
| <b>Respiratory or Skin sensitisation</b> | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>STOT - Repeated Exposure</b> | ✗ |  |
| <b>Mutagenicity</b>                      | ✗                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Aspiration Hazard</b>        | ✗ |  |

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

| Dy-Mark Spray & Mark - All colours (LPG new formula)    | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------|-------------------|---------------|
|                                                         | Not Available                                                                                                                                                                                                                                                                                                            | Not Available      | Not Available                 | Not Available     | Not Available |
| acetone                                                 | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 96h                | Algae or other aquatic plants | 9.873-27.684mg/l  | 4             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 72h                | Algae or other aquatic plants | 5600-10000mg/L    | 4             |
|                                                         | NOEC(ECx)                                                                                                                                                                                                                                                                                                                | 12h                | Fish                          | 0.001mg/L         | 4             |
|                                                         | LC50                                                                                                                                                                                                                                                                                                                     | 96h                | Fish                          | 3744.6-5000.7mg/L | 4             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 48h                | Crustacea                     | 6098.4mg/L        | 5             |
| propylene glycol monomethyl ether acetate, alpha-isomer | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 96h                | Algae or other aquatic plants | >1000mg/l         | 2             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 72h                | Algae or other aquatic plants | >1000mg/l         | 2             |
|                                                         | NOEC(ECx)                                                                                                                                                                                                                                                                                                                | 336h               | Fish                          | 47.5mg/l          | 2             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 48h                | Crustacea                     | 373mg/l           | 2             |
|                                                         | LC50                                                                                                                                                                                                                                                                                                                     | 96h                | Fish                          | 100-180mg/l       | 2             |
| ethanol                                                 | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 96h                | Algae or other aquatic plants | <0.001mg/L        | 4             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 72h                | Algae or other aquatic plants | 275mg/l           | 2             |
|                                                         | EC50(ECx)                                                                                                                                                                                                                                                                                                                | 96h                | Algae or other aquatic plants | <0.001mg/L        | 4             |
|                                                         | LC50                                                                                                                                                                                                                                                                                                                     | 96h                | Fish                          | 42mg/L            | 4             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 48h                | Crustacea                     | 2mg/L             | 4             |
| naphtha petroleum, light aromatic solvent               | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 96h                | Algae or other aquatic plants | 64mg/l            | 2             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 72h                | Algae or other aquatic plants | 19mg/l            | 1             |
|                                                         | NOEC(ECx)                                                                                                                                                                                                                                                                                                                | 72h                | Algae or other aquatic plants | 1mg/l             | 1             |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 48h                | Crustacea                     | 6.14mg/l          | 1             |
| hydrocarbon propellant                                  | Endpoint                                                                                                                                                                                                                                                                                                                 | Test Duration (hr) | Species                       | Value             | Source        |
|                                                         | EC50                                                                                                                                                                                                                                                                                                                     | 96h                | Algae or other aquatic plants | 7.71mg/l          | 2             |
|                                                         | EC50(ECx)                                                                                                                                                                                                                                                                                                                | 96h                | Algae or other aquatic plants | 7.71mg/l          | 2             |
|                                                         | LC50                                                                                                                                                                                                                                                                                                                     | 96h                | Fish                          | 24.11mg/l         | 2             |
| <b>Legend:</b>                                          | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data |                    |                               |                   |               |

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**DO NOT** discharge into sewer or waterways.

Continued...

Dy-Mark Spray & Mark - All colours (LPG new formula)

Persistence and degradability

| Ingredient                                              | Persistence: Water/Soil     | Persistence: Air                 |
|---------------------------------------------------------|-----------------------------|----------------------------------|
| acetone                                                 | LOW (Half-life = 14 days)   | MEDIUM (Half-life = 116.25 days) |
| propylene glycol monomethyl ether acetate, alpha-isomer | LOW                         | LOW                              |
| ethanol                                                 | LOW (Half-life = 2.17 days) | LOW (Half-life = 5.08 days)      |

Bioaccumulative potential

| Ingredient                                              | Bioaccumulation      |
|---------------------------------------------------------|----------------------|
| acetone                                                 | LOW (BCF = 0.69)     |
| propylene glycol monomethyl ether acetate, alpha-isomer | LOW (LogKOW = 0.56)  |
| ethanol                                                 | LOW (LogKOW = -0.31) |
| hydrocarbon propellant                                  | LOW (LogKOW = 3.39)  |

Mobility in soil

| Ingredient                                              | Mobility               |
|---------------------------------------------------------|------------------------|
| acetone                                                 | HIGH (Log KOC = 1.981) |
| propylene glycol monomethyl ether acetate, alpha-isomer | HIGH (Log KOC = 1.838) |
| ethanol                                                 | HIGH (Log KOC = 1)     |

SECTION 13 Disposal considerations

Waste treatment methods

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product / Packaging disposal | <ul style="list-style-type: none"><li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li><li>▶ It may be necessary to collect all wash water for treatment before disposal.</li><li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li><li>▶ Where in doubt contact the responsible authority.</li><li>▶ Consult State Land Waste Management Authority for disposal.</li><li>▶ Discharge contents of damaged aerosol cans at an approved site.</li><li>▶ Allow small quantities to evaporate.</li><li>▶ <b>DO NOT</b> incinerate or puncture aerosol cans.</li><li>▶ Bury residues and emptied aerosol cans at an approved site.</li></ul> |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

SECTION 14 Transport information

Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |  |
| Marine Pollutant | NO                                                                                  |
| HAZCHEM          | Not Applicable                                                                      |

Land transport (ADG)

|                                    |                                                                                                                                     |                    |                        |                   |                |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------|-------------------|----------------|
| 14.1. UN number or ID number       | 1950                                                                                                                                |                    |                        |                   |                |
| 14.2. UN proper shipping name      | AEROSOLS                                                                                                                            |                    |                        |                   |                |
| 14.3. Transport hazard class(es)   | <table><tr><td>Class</td><td>2.1</td></tr><tr><td>Subsidiary Hazard</td><td>Not Applicable</td></tr></table>                        | Class              | 2.1                    | Subsidiary Hazard | Not Applicable |
| Class                              | 2.1                                                                                                                                 |                    |                        |                   |                |
| Subsidiary Hazard                  | Not Applicable                                                                                                                      |                    |                        |                   |                |
| 14.4. Packing group                | Not Applicable                                                                                                                      |                    |                        |                   |                |
| 14.5. Environmental hazard         | Not Applicable                                                                                                                      |                    |                        |                   |                |
| 14.6. Special precautions for user | <table><tr><td>Special provisions</td><td>63 190 277 327 344 381</td></tr><tr><td>Limited quantity</td><td>1000ml</td></tr></table> | Special provisions | 63 190 277 327 344 381 | Limited quantity  | 1000ml         |
| Special provisions                 | 63 190 277 327 344 381                                                                                                              |                    |                        |                   |                |
| Limited quantity                   | 1000ml                                                                                                                              |                    |                        |                   |                |

Air transport (ICAO-IATA / DGR)

|                                  |                                                                                                                                                                          |                 |     |                               |                |          |     |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|-------------------------------|----------------|----------|-----|
| 14.1. UN number                  | 1950                                                                                                                                                                     |                 |     |                               |                |          |     |
| 14.2. UN proper shipping name    | Aerosols, flammable (engine starting fluid)                                                                                                                              |                 |     |                               |                |          |     |
| 14.3. Transport hazard class(es) | <table><tr><td>ICAO/IATA Class</td><td>2.1</td></tr><tr><td>ICAO / IATA Subsidiary Hazard</td><td>Not Applicable</td></tr><tr><td>ERG Code</td><td>10L</td></tr></table> | ICAO/IATA Class | 2.1 | ICAO / IATA Subsidiary Hazard | Not Applicable | ERG Code | 10L |
| ICAO/IATA Class                  | 2.1                                                                                                                                                                      |                 |     |                               |                |          |     |
| ICAO / IATA Subsidiary Hazard    | Not Applicable                                                                                                                                                           |                 |     |                               |                |          |     |
| ERG Code                         | 10L                                                                                                                                                                      |                 |     |                               |                |          |     |
| 14.4. Packing group              | Not Applicable                                                                                                                                                           |                 |     |                               |                |          |     |

Dy-Mark Spray & Mark - All colours (LPG new formula)

|                                    |                                                           |                   |
|------------------------------------|-----------------------------------------------------------|-------------------|
| 14.5. Environmental hazard         | Not Applicable                                            |                   |
| 14.6. Special precautions for user | Special provisions                                        | A1 A145 A167 A802 |
|                                    | Cargo Only Packing Instructions                           | 203               |
|                                    | Cargo Only Maximum Qty / Pack                             | 150 kg            |
|                                    | Passenger and Cargo Packing Instructions                  | Forbidden         |
|                                    | Passenger and Cargo Maximum Qty / Pack                    | Forbidden         |
|                                    | Passenger and Cargo Limited Quantity Packing Instructions | Forbidden         |
|                                    | Passenger and Cargo Limited Maximum Qty / Pack            | Forbidden         |

Sea transport (IMDG-Code / GGVSee)

|                                    |                        |                            |
|------------------------------------|------------------------|----------------------------|
| 14.1. UN number                    | 1950                   |                            |
| 14.2. UN proper shipping name      | AEROSOLS               |                            |
| 14.3. Transport hazard class(es)   | IMDG Class             | 2.1                        |
|                                    | IMDG Subsidiary Hazard | Not Applicable             |
| 14.4. Packing group                | Not Applicable         |                            |
| 14.5. Environmental hazard         | Not Applicable         |                            |
| 14.6. Special precautions for user | EMS Number             | F-D , S-U                  |
|                                    | Special provisions     | 63 190 277 327 344 381 959 |
|                                    | Limited Quantities     | 1000 ml                    |

14.7. Maritime transport in bulk according to IMO instruments

14.7.1. Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name                                            | Group         |
|---------------------------------------------------------|---------------|
| acetone                                                 | Not Available |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available |
| ethanol                                                 | Not Available |
| naphtha petroleum, light aromatic solvent               | Not Available |
| hydrocarbon propellant                                  | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

| Product name                                            | Ship Type     |
|---------------------------------------------------------|---------------|
| acetone                                                 | Not Available |
| propylene glycol monomethyl ether acetate, alpha-isomer | Not Available |
| ethanol                                                 | Not Available |
| naphtha petroleum, light aromatic solvent               | Not Available |
| hydrocarbon propellant                                  | Not Available |

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

acetone is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
Australian Inventory of Industrial Chemicals (AIIC)

propylene glycol monomethyl ether acetate, alpha-isomer is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)

ethanol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  
Australian Inventory of Industrial Chemicals (AIIC)

naphtha petroleum, light aromatic solvent is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
Australian Inventory of Industrial Chemicals (AIIC)  
Chemical Footprint Project - Chemicals of High Concern List

**hydrocarbon propellant is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

**Additional Regulatory Information**

Not Applicable

**National Inventory Status**

| National Inventory                              | Status                                                                                                                                                                                                       |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use | Yes                                                                                                                                                                                                          |
| Canada - DSL                                    | Yes                                                                                                                                                                                                          |
| Canada - NDSL                                   | No (acetone; propylene glycol monomethyl ether acetate, alpha-isomer; ethanol; naphtha petroleum, light aromatic solvent; hydrocarbon propellant)                                                            |
| China - IECSC                                   | Yes                                                                                                                                                                                                          |
| Europe - EINEC / ELINCS / NLP                   | Yes                                                                                                                                                                                                          |
| Japan - ENCS                                    | Yes                                                                                                                                                                                                          |
| Korea - KECI                                    | Yes                                                                                                                                                                                                          |
| New Zealand - NZIoC                             | Yes                                                                                                                                                                                                          |
| Philippines - PICCS                             | Yes                                                                                                                                                                                                          |
| USA - TSCA                                      | All chemical substances in this product have been designated as TSCA Inventory 'Active'                                                                                                                      |
| Taiwan - TCSI                                   | Yes                                                                                                                                                                                                          |
| Mexico - INSQ                                   | Yes                                                                                                                                                                                                          |
| Vietnam - NCI                                   | Yes                                                                                                                                                                                                          |
| Russia - FBEPH                                  | Yes                                                                                                                                                                                                          |
| <b>Legend:</b>                                  | <p>Yes = All CAS declared ingredients are on the inventory</p> <p>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</p> |

**SECTION 16 Other information**

|                      |            |
|----------------------|------------|
| <b>Revision Date</b> | 23/01/2025 |
| <b>Initial Date</b>  | 23/11/2021 |

**SDS Version Summary**

| Version | Date of Update | Sections Updated                                                                                                               |
|---------|----------------|--------------------------------------------------------------------------------------------------------------------------------|
| 3.1     | 10/03/2023     | Classification change due to full database hazard calculation/update.                                                          |
| 4.1     | 23/01/2025     | Hazards identification - Classification, Identification of the substance / mixture and of the company / undertaking - Synonyms |

**Other information**

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

**Definitions and abbreviations**

- ▶ PC - TWA: Permissible Concentration-Time Weighted Average
- ▶ PC - STEL: Permissible Concentration-Short Term Exposure Limit
- ▶ IARC: International Agency for Research on Cancer
- ▶ ACGIH: American Conference of Governmental Industrial Hygienists
- ▶ STEL: Short Term Exposure Limit
- ▶ TEEL: Temporary Emergency Exposure Limit,
- ▶ IDLH: Immediately Dangerous to Life or Health Concentrations
- ▶ ES: Exposure Standard
- ▶ OSF: Odour Safety Factor
- ▶ NOAEL: No Observed Adverse Effect Level
- ▶ LOAEL: Lowest Observed Adverse Effect Level
- ▶ TLV: Threshold Limit Value
- ▶ LOD: Limit Of Detection
- ▶ OTV: Odour Threshold Value
- ▶ BCF: BioConcentration Factors
- ▶ BEI: Biological Exposure Index
- ▶ DNEL: Derived No-Effect Level
- ▶ PNEC: Predicted no-effect concentration
- ▶ MARPOL: International Convention for the Prevention of Pollution from Ships
- ▶ IMSBC: International Maritime Solid Bulk Cargoes Code
- ▶ IGC: International Gas Carrier Code
- ▶ IBC: International Bulk Chemical Code
- ▶ AIIC: Australian Inventory of Industrial Chemicals
- ▶ DSL: Domestic Substances List
- ▶ NDSL: Non-Domestic Substances List
- ▶ IECSC: Inventory of Existing Chemical Substance in China
- ▶ EINECS: European INventory of Existing Commercial chemical Substances



**Dy-Mark Spray & Mark - All colours (LPG new formula)**

- ▶ ELINCS: European List of Notified Chemical Substances
- ▶ NLP: No-Longer Polymers
- ▶ ENCS: Existing and New Chemical Substances Inventory
- ▶ KECI: Korea Existing Chemicals Inventory
- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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TEL (+61 3) 9572 4700.



## Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula) Dy-Mark

Chemwatch: 18-3983

Version No: 17.1.5.2

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 02/06/2021

Print Date: 02/06/2021

S.GHS.AUS.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### Product Identifier

|                               |                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                  | Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)                                                                                                                                                                                                                                                    |
| Chemical Name                 | Not Applicable                                                                                                                                                                                                                                                                                                      |
| Synonyms                      | 40011229 Fluoro Pink Trade Pack; 40013522 Toluene Free; 40013523, 40013524, 40013525, 40013526, 40013528 Fluoro Violet; 40013529, 40033522 Fluoro Red 350g 360°; 40033523 Fluoro Blue 350g 360°; 40033524 Fluoro Green 350g 360°; 40033526 Fluoro Orange 360°; 40033529 Fluoro Pink 350g 360°; 40010629 Fluoro Pink |
| Proper shipping name          | AEROSOLS                                                                                                                                                                                                                                                                                                            |
| Chemical formula              | Not Applicable                                                                                                                                                                                                                                                                                                      |
| Other means of identification | Not Available                                                                                                                                                                                                                                                                                                       |

#### Relevant identified uses of the substance or mixture and uses advised against

|                          |                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------|
| Relevant identified uses | Application is by spray atomisation from a hand held aerosol pack<br>Use according to manufacturer's directions. |
|--------------------------|------------------------------------------------------------------------------------------------------------------|

#### Details of the supplier of the safety data sheet

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Registered company name | Dy-Mark                                                         |
| Address                 | 89 Formation Street Wacol QLD 4076 Australia                    |
| Telephone               | +61 7 3327 3004                                                 |
| Fax                     | +61 7 3327 3009                                                 |
| Website                 | <a href="http://www.dymark.com.au">http://www.dymark.com.au</a> |
| Email                   | info@dymark.com.au                                              |

#### Emergency telephone number

|                                   |                 |
|-----------------------------------|-----------------|
| Association / Organisation        | Dy-Mark         |
| Emergency telephone numbers       | +61 7 3327 3099 |
| Other emergency telephone numbers | Not Available   |

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

#### ChemWatch Hazard Ratings



|              | Min | Max |
|--------------|-----|-----|
| Flammability | 4   |     |
| Toxicity     | 2   |     |
| Body Contact | 2   |     |
| Reactivity   | 1   |     |
| Chronic      | 1   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                    |                                                                                                                                                                                                        |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poisons Schedule   | Not Applicable                                                                                                                                                                                         |
| Classification [1] | Aerosols Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Acute Aquatic Hazard Category 3 |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                                    |

#### Label elements

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

|                     |                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictogram(s) |   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |        |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

## Hazard statement(s)

|           |                                                                          |
|-----------|--------------------------------------------------------------------------|
| AUH044    | Risk of explosion if heated under confinement.                           |
| H222+H229 | Extremely flammable aerosol; Pressurized container: may burst if heated. |
| H315      | Causes skin irritation.                                                  |
| H319      | Causes serious eye irritation.                                           |
| H336      | May cause drowsiness or dizziness.                                       |
| H402      | Harmful to aquatic life.                                                 |

## Precautionary statement(s) Prevention

|      |                                                                                                |
|------|------------------------------------------------------------------------------------------------|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source.                                        |
| P251 | Do not pierce or burn, even after use.                                                         |
| P271 | Use only outdoors or in a well-ventilated area.                                                |
| P261 | Avoid breathing mist/vapours/spray.                                                            |
| P273 | Avoid release to the environment.                                                              |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection.               |

## Precautionary statement(s) Response

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312           | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.                                                            |
| P337+P313      | If eye irritation persists: Get medical advice/attention.                                                                        |
| P302+P352      | IF ON SKIN: Wash with plenty of water.                                                                                           |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.                                                                         |
| P362+P364      | Take off contaminated clothing and wash it before reuse.                                                                         |

## Precautionary statement(s) Storage

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| P405      | Store locked up.                                                             |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed.             |

## Precautionary statement(s) Disposal

|      |                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|----------------------------------------------------------------------------------------------------------------------------------|

## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

| CAS No        | %[weight] | Name                                                                                     |
|---------------|-----------|------------------------------------------------------------------------------------------|
| 1330-20-7     | 10-30     | <u>xylene</u>                                                                            |
| 67-64-1       | 10-30     | <u>acetone</u>                                                                           |
| Not Available | 1-10      | pigment and filler, non-hazardous                                                        |
| Not Available | 1-10      | resin, non-hazardous                                                                     |
| 115-10-6      | 10-30     | <u>dimethyl ether</u>                                                                    |
| 68476-85-7.   | 10-30     | <u>hydrocarbon propellant</u>                                                            |
| Not Available |           | The hydrocarbon propellant used in the product contains less than 0.1% w/w 1,3 butadiene |
| Not Available |           | therefore product not classified as a carcinogen                                         |

## Legend:

1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&amp;L; \* EU IOELVs available

## SECTION 4 First aid measures

## Description of first aid measures

|             |                                            |
|-------------|--------------------------------------------|
| Eye Contact | If aerosols come in contact with the eyes: |
|-------------|--------------------------------------------|

Continued...

## Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <ul style="list-style-type: none"> <li>▶ Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water.</li> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>                                                                                                 |
| <b>Skin Contact</b> | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>                                                                                                                                                                                                                                             |
| <b>Inhalation</b>   | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul> |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.  
for lower alkyl ethers:

#### BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ A low-stimulus environment must be maintained.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate and treat, where necessary, for seizures.
- ▶ **DO NOT use emetics.** Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

#### ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension without signs of hypovolaemia may require vasopressors.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

#### EMERGENCY DEPARTMENT

- ▶ Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- ▶ Ethers may produce anion gap acidosis. Hyperventilation and bicarbonate therapy might be indicated.
- ▶ Haemodialysis might be considered in patients with impaired renal function.
- ▶ Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For acute or short term repeated exposures to acetone:

- ▶ Symptoms of acetone exposure approximate ethanol intoxication.
- ▶ About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.
- ▶ There are no known antidotes and treatment should involve the usual methods of decontamination followed by supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Management:

Measurement of serum and urine acetone concentrations may be useful to monitor the severity of ingestion or inhalation.

Inhalation Management:

- ▶ Maintain a clear airway, give humidified oxygen and ventilate if necessary.
- ▶ If respiratory irritation occurs, assess respiratory function and, if necessary, perform chest X-rays to check for chemical pneumonitis.
- ▶ Consider the use of steroids to reduce the inflammatory response.
- ▶ Treat pulmonary oedema with PEEP or CPAP ventilation.

Dermal Management:

- ▶ Remove any remaining contaminated clothing, place in double sealed, clear bags, label and store in secure area away from patients and staff.
- ▶ Irrigate with copious amounts of water.
- ▶ An emollient may be required.

Eye Management:

- ▶ Irrigate thoroughly with running water or saline for 15 minutes.
- ▶ Stain with fluorescein and refer to an ophthalmologist if there is any uptake of the stain.

Oral Management:

- ▶ No **GASTRIC LAVAGE OR EMETIC**
- ▶ Encourage oral fluids.

Systemic Management:

- ▶ Monitor blood glucose and arterial pH.
- ▶ Ventilate if respiratory depression occurs.
- ▶ If patient unconscious, monitor renal function.
- ▶ Symptomatic and supportive care.

The Chemical Incident Management Handbook:

Continued...

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

Guy's and St. Thomas' Hospital Trust, 2000

## BIOLOGICAL EXPOSURE INDEX

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant      | Sampling Time | Index   | Comments |
|------------------|---------------|---------|----------|
| Acetone in urine | End of shift  | 50 mg/L | NS       |

NS: Non-specific determinant; also observed after exposure to other material

For acute or short term repeated exposures to xylene:

- ▶ Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- ▶ Pulmonary absorption is rapid with about 60-65% retained at rest.
- ▶ Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- ▶ Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> < 50 mm Hg or pCO<sub>2</sub> > 50 mm Hg) should be intubated.
- ▶ Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- ▶ A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- ▶ Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

## BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant                   | Index                            | Sampling Time                       | Comments |
|-------------------------------|----------------------------------|-------------------------------------|----------|
| Methylhippuric acids in urine | 1.5 gm/gm creatinine<br>2 mg/min | End of shift<br>Last 4 hrs of shift |          |

## SECTION 5 Firefighting measures

## Extinguishing media

## SMALL FIRE:

- ▶ Water spray, dry chemical or CO<sub>2</sub>

## LARGE FIRE:

- ▶ Water spray or fog.

## Special hazards arising from the substrate or mixture

| Fire Incompatibility | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|

## Advice for firefighters

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Fighting         | <ul style="list-style-type: none"> <li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▶ May be violently or explosively reactive.</li> <li>▶ Wear breathing apparatus plus protective gloves.</li> <li>▶ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▶ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▶ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▶ Cool fire exposed containers with water spray from a protected location.</li> <li>▶ If safe to do so, remove containers from path of fire.</li> <li>▶ Equipment should be thoroughly decontaminated after use.</li> </ul>                                                                                                                                                                                                                                                                                                               |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> <li>▶ Liquid and vapour are highly flammable.</li> <li>▶ Severe fire hazard when exposed to heat or flame.</li> <li>▶ Vapour forms an explosive mixture with air.</li> <li>▶ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>▶ Vapour may travel a considerable distance to source of ignition.</li> <li>▶ Heating may cause expansion or decomposition with violent container rupture.</li> <li>▶ Aerosol cans may explode on exposure to naked flames.</li> <li>▶ Rupturing containers may rocket and scatter burning materials.</li> <li>▶ Hazards may not be restricted to pressure effects.</li> <li>▶ May emit acrid, poisonous or corrosive fumes.</li> <li>▶ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon monoxide (CO)<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</p> |
| HAZCHEM               | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## SECTION 6 Accidental release measures

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <ul style="list-style-type: none"> <li>▶ Clean up all spills immediately.</li> <li>▶ Avoid breathing vapours and contact with skin and eyes.</li> <li>▶ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▶ Shut off all possible sources of ignition and increase ventilation.</li> <li>▶ Wipe up.</li> <li>▶ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> </ul> |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|              | <ul style="list-style-type: none"> <li>Undamaged cans should be gathered and stowed safely.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Major Spills | <ul style="list-style-type: none"> <li>Remove leaking cylinders to a safe place if possible.</li> <li>Release pressure under safe, controlled conditions by opening the valve.</li> <li><b>DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.</b></li> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>May be violently or explosively reactive.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses</li> <li>No smoking, naked lights or ignition sources.</li> <li>Increase ventilation.</li> <li>Stop leak if safe to do so.</li> <li>Water spray or fog may be used to disperse / absorb vapour.</li> <li>Absorb or cover spill with sand, earth, inert materials or vermiculite.</li> <li>If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.</li> <li>Undamaged cans should be gathered and stowed safely.</li> <li>Collect residues and seal in labelled drums for disposal.</li> </ul> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

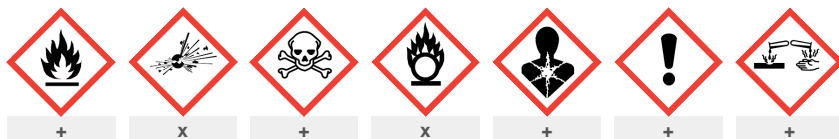
## SECTION 7 Handling and storage

## Precautions for safe handling

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling     | <ul style="list-style-type: none"> <li>Avoid all personal contact, including inhalation.</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Use in a well-ventilated area.</li> <li>Prevent concentration in hollows and sumps.</li> <li><b>DO NOT enter confined spaces until atmosphere has been checked.</b></li> <li>Avoid smoking, naked lights or ignition sources.</li> <li>Avoid contact with incompatible materials.</li> <li><b>When handling, DO NOT eat, drink or smoke.</b></li> <li><b>DO NOT incinerate or puncture aerosol cans.</b></li> <li><b>DO NOT spray directly on humans, exposed food or food utensils.</b></li> <li>Avoid physical damage to containers.</li> <li>Always wash hands with soap and water after handling.</li> <li>Work clothes should be laundered separately.</li> <li>Use good occupational work practice.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> </ul> |
| Other information | <ul style="list-style-type: none"> <li>Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can</li> <li>Store in original containers in approved flammable liquid storage area.</li> <li><b>DO NOT store in pits, depressions, basements or areas where vapours may be trapped.</b></li> <li>No smoking, naked lights, heat or ignition sources.</li> <li>Keep containers securely sealed. Contents under pressure.</li> <li>Store away from incompatible materials.</li> <li>Store in a cool, dry, well ventilated area.</li> <li>Avoid storage at temperatures higher than 40 deg C.</li> <li>Store in an upright position.</li> <li>Protect containers against physical damage.</li> <li>Check regularly for spills and leaks.</li> <li>Observe manufacturer's storage and handling recommendations contained within this SDS.</li> </ul>                                                                                                                                                                                                         |

## Conditions for safe storage, including any incompatibilities

|                         |                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Suitable container      | <ul style="list-style-type: none"> <li>Aerosol dispenser.</li> <li>Check that containers are clearly labelled.</li> </ul> |
| Storage incompatibility | <ul style="list-style-type: none"> <li>Avoid reaction with oxidising agents</li> </ul>                                    |



X — Must not be stored together

0 — May be stored together with specific preventions

+

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                       | Ingredient | Material name               | TWA                | STEL                | Peak          | Notes         |
|------------------------------|------------|-----------------------------|--------------------|---------------------|---------------|---------------|
| Australia Exposure Standards | xylene     | Xylene (o-, m-, p- isomers) | 80 ppm / 350 mg/m3 | 655 mg/m3 / 150 ppm | Not Available | Not Available |

Continued...



## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)


| Source                       | Ingredient             | Material name                 | TWA                   | STEL                  | Peak          | Notes         |
|------------------------------|------------------------|-------------------------------|-----------------------|-----------------------|---------------|---------------|
| Australia Exposure Standards | acetone                | Acetone                       | 500 ppm / 1185 mg/m3  | 2375 mg/m3 / 1000 ppm | Not Available | Not Available |
| Australia Exposure Standards | dimethyl ether         | Dimethyl ether                | 400 ppm / 760 mg/m3   | 950 mg/m3 / 500 ppm   | Not Available | Not Available |
| Australia Exposure Standards | hydrocarbon propellant | LPG (liquefied petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available         | Not Available | Not Available |

## Emergency Limits

| Ingredient             | TEEL-1        | TEEL-2        | TEEL-3        |
|------------------------|---------------|---------------|---------------|
| xylene                 | Not Available | Not Available | Not Available |
| acetone                | Not Available | Not Available | Not Available |
| dimethyl ether         | 3,000 ppm     | 3800* ppm     | 7200* ppm     |
| hydrocarbon propellant | 65,000 ppm    | 2.30E+05 ppm  | 4.00E+05 ppm  |

| Ingredient             | Original IDLH | Revised IDLH  |
|------------------------|---------------|---------------|
| xylene                 | 900 ppm       | Not Available |
| acetone                | 2,500 ppm     | Not Available |
| dimethyl ether         | Not Available | Not Available |
| hydrocarbon propellant | 2,000 ppm     | Not Available |

## Exposure controls

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Appropriate engineering controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.<br>Employers may need to use multiple types of controls to prevent employee overexposure.                                                                         |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.<br>Provide adequate ventilation in warehouse or closed storage areas.<br>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Type of Contaminant:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Speed:                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | aerosols, (released at low velocity into zone of active generation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.5-1 m/s                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1-2.5 m/s (200-500 f/min.)       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Within each range the appropriate value depends on:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Lower end of the range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Upper end of the range           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1: Room air currents minimal or favourable to capture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1: Disturbing room air currents  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2: Contaminants of low toxicity or of nuisance value only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2: Contaminants of high toxicity |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3: Intermittent, low production.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4: Small hood-local control only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |
| Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| Personal protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                  |
| Eye and face protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"><li>▶ Safety glasses with side shields.</li><li>▶ Chemical goggles.</li><li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li></ul> |                                  |
| Skin protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                  |
| Hands/feet protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>▶ No special equipment needed when handling small quantities.</li><li>▶ <b>OTHERWISE:</b></li><li>▶ For potentially moderate exposures:</li><li>▶ Wear general protective gloves, eg. light weight rubber gloves.</li><li>▶ For potentially heavy exposures:</li><li>▶ Wear chemical protective gloves, eg. PVC. and safety footwear.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                  |

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Body protection</b>  | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Other protection</b> | <p>No special equipment needed when handling small quantities.</p> <p><b>OTHERWISE:</b></p> <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eyewash unit.</li> <li>▶ Do not spray on hot surfaces.</li> <li>▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.</li> <li>▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.</li> </ul> <p>BREITHERICK: Handbook of Reactive Chemical Hazards.</p> |

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)

| Material          | CPI |
|-------------------|-----|
| BUTYL             | C   |
| BUTYL/NEOPRENE    | C   |
| CPE               | C   |
| HYPALON           | C   |
| NAT+NEOPR+NITRILE | C   |
| NATURAL RUBBER    | C   |
| NATURAL+NEOPRENE  | C   |
| NEOPRENE          | C   |
| NEOPRENE/NATURAL  | C   |
| NITRILE           | C   |
| NITRILE+PVC       | C   |
| PE/EVAL/PE        | C   |
| PVA               | C   |
| PVC               | C   |
| PVDC/PE/PVDC      | C   |
| SARANEX-23        | C   |
| SARANEX-23 2-PLY  | C   |
| TEFLON            | C   |
| VITON             | C   |
| VITON/NEOPRENE    | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | AX-AUS / Class 1     | -                    | AX-PAPR-AUS / Class 1  |
| up to 50 x ES                      | Air-line*            | -                    | -                      |
| up to 100 x ES                     | -                    | AX-3                 | -                      |
| 100+ x ES                          | -                    | Air-line**           | -                      |

\* - Continuous-flow; \*\* - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

|                                                     |                                                                                                                                                                           |                                                |                |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------|
| <b>Appearance</b>                                   | Flammable coloured liquid; partially miscible with water. Supplied as an aerosol pack. Contents under <b>PRESSURE</b> . Contains highly flammable hydrocarbon propellant. |                                                |                |
| <b>Physical state</b>                               | Liquid                                                                                                                                                                    | <b>Relative density (Water = 1)</b>            | Not Available  |
| <b>Odour</b>                                        | Not Available                                                                                                                                                             | <b>Partition coefficient n-octanol / water</b> | Not Available  |
| <b>Odour threshold</b>                              | Not Available                                                                                                                                                             | <b>Auto-ignition temperature (°C)</b>          | Not Available  |
| <b>pH (as supplied)</b>                             | Not Applicable                                                                                                                                                            | <b>Decomposition temperature</b>               | Not Available  |
| <b>Melting point / freezing point (°C)</b>          | Not Available                                                                                                                                                             | <b>Viscosity (cSt)</b>                         | Not Available  |
| <b>Initial boiling point and boiling range (°C)</b> | Not Available                                                                                                                                                             | <b>Molecular weight (g/mol)</b>                | Not Applicable |
| <b>Flash point (°C)</b>                             | -81 (propellant)                                                                                                                                                          | <b>Taste</b>                                   | Not Available  |
| <b>Evaporation rate</b>                             | Not Available                                                                                                                                                             | <b>Explosive properties</b>                    | Not Available  |

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

|                                  |                   |                                         |               |
|----------------------------------|-------------------|-----------------------------------------|---------------|
| <b>Flammability</b>              | HIGHLY FLAMMABLE. | <b>Oxidising properties</b>             | Not Available |
| <b>Upper Explosive Limit (%)</b> | Not Available     | <b>Surface Tension (dyn/cm or mN/m)</b> | Not Available |
| <b>Lower Explosive Limit (%)</b> | Not Available     | <b>Volatile Component (%vol)</b>        | Not Available |
| <b>Vapour pressure (kPa)</b>     | Not Available     | <b>Gas group</b>                        | Not Available |
| <b>Solubility in water</b>       | Partly miscible   | <b>pH as a solution (%)</b>             | Not Available |
| <b>Vapour density (Air = 1)</b>  | Not Available     | <b>VOC g/L</b>                          | Not Available |

## SECTION 10 Stability and reactivity

|                                           |                                                                                                                                                                                                            |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | See section 7                                                                                                                                                                                              |
| <b>Chemical stability</b>                 | <ul style="list-style-type: none"> <li>▸ Elevated temperatures.</li> <li>▸ Presence of open flame.</li> <li>▸ Product is considered stable.</li> <li>▸ Hazardous polymerisation will not occur.</li> </ul> |
| <b>Possibility of hazardous reactions</b> | See section 7                                                                                                                                                                                              |
| <b>Conditions to avoid</b>                | See section 7                                                                                                                                                                                              |
| <b>Incompatible materials</b>             | See section 7                                                                                                                                                                                              |
| <b>Hazardous decomposition products</b>   | See section 5                                                                                                                                                                                              |

## SECTION 11 Toxicological information

## Information on toxicological effects

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhaled</b>      | <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur.</p> <p>Alkylbenzenes are not generally toxic except at high levels of exposure. Their breakdown products have low toxicity and are easily eliminated from the body.</p> <p>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> <li>▸ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;</li> <li>▸ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;</li> <li>▸ heart: collapse, irregular heartbeats and cardiac arrest;</li> <li>▸ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.</li> </ul> <p>Following inhalation, ethers cause lethargy and stupor. Inhaling lower alkyl ethers results in headache, dizziness, weakness, blurred vision, seizures and possible coma.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> |
| <b>Ingestion</b>    | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Not a likely route of entry into the body in commercial or industrial environments. The liquid may produce considerable gastrointestinal discomfort and be harmful or toxic if swallowed.</p> <p>Ingestion of alkyl ethers may produce stupor, blurred vision, headache, dizziness and irritation of the nose and throat. Respiratory distress and asphyxia may result.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Skin Contact</b> | <p>Skin contact with the material may be harmful; systemic effects may result following absorption.</p> <p>The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Spray mist may produce discomfort</p> <p>Alkyl ethers may defat and dehydrate the skin producing dermatoses. Absorption may produce headache, dizziness, and central nervous system depression.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Eye</b>          | <p>Not considered to be a risk because of the extreme volatility of the gas. Eye contact with alkyl ethers (vapour or liquid) may produce irritation, redness and tears.</p> <p>There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Chronic</b>      | <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>Chronic exposure to alkyl ethers may result in loss of appetite, excessive thirst, fatigue, and weight loss.</p> <p>Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.</p> <p>Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis).</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

| Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)                                                                                                                                                                             | TOXICITY                                          | IRRITATION                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------|
|                                                                                                                                                                                                                                              | Not Available                                     | Not Available                                            |
| xylene                                                                                                                                                                                                                                       | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Dermal (rabbit) LD50: >1700 mg/kg <sup>[2]</sup>  | Eye (human): 200 ppm irritant                            |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; 5922 ppm4h <sup>[1]</sup>   | Eye (rabbit): 5 mg/24h SEVERE                            |
|                                                                                                                                                                                                                                              | Oral(Mouse) LD50; 1548 mg/kg <sup>[2]</sup>       | Eye (rabbit): 87 mg mild                                 |
|                                                                                                                                                                                                                                              |                                                   | Eye: adverse effect observed (irritating) <sup>[1]</sup> |
|                                                                                                                                                                                                                                              |                                                   | Skin (rabbit):500 mg/24h moderate                        |
| acetone                                                                                                                                                                                                                                      | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Dermal (rabbit) LD50: 20 mg/kg <sup>[2]</sup>     | Eye (human): 500 ppm - irritant                          |
|                                                                                                                                                                                                                                              | Inhalation(Mouse) LC50; 44 mg/L4h <sup>[2]</sup>  | Eye (rabbit): 20mg/24hr -moderate                        |
|                                                                                                                                                                                                                                              | Oral(Rat) LD50; 1738 mg/kg <sup>[1]</sup>         | Eye (rabbit): 3.95 mg - SEVERE                           |
|                                                                                                                                                                                                                                              |                                                   | Eye: adverse effect observed (irritating) <sup>[1]</sup> |
|                                                                                                                                                                                                                                              |                                                   | Skin (rabbit): 500 mg/24hr - mild                        |
| dimethyl ether                                                                                                                                                                                                                               | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; >20000 ppm4h <sup>[1]</sup> | Not Available                                            |
| hydrocarbon propellant                                                                                                                                                                                                                       | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; 658 mg/l4h <sup>[2]</sup>   | Not Available                                            |
| <b>Legend:</b> 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances |                                                   |                                                          |

|                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>XYLENE</b>                                                                             | Reproductive effector in rats<br>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.<br>The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing. |
| <b>HYDROCARBON PROPELLANT</b>                                                             | No significant acute toxicological data identified in literature search. inhalation of the gas                                                                                                                                                                                                                                                                                                    |
| <b>Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula) &amp; ACETONE</b> | For acetone:<br>The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause macrocytic anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/cubic metre has not caused neurobehavioural deficits.                                 |
| <b>XYLENE &amp; ACETONE</b>                                                               | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.                                                                                                                                                                                                    |

|                                          |   |                                 |   |
|------------------------------------------|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✓ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✓ | <b>STOT - Single Exposure</b>   | ✓ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✗ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

| Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula) | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|------------------------------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
|                                                                  | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| xylene                                                           | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                                  | EC50          | 72h                | Algae or other aquatic plants | 4.6mg/l       | 2             |
|                                                                  | LC50          | 96h                | Fish                          | 2.6mg/l       | 2             |
|                                                                  | EC50          | 48h                | Crustacea                     | 1.8mg/l       | 2             |
|                                                                  | NOEC(ECx)     | 73h                | Algae or other aquatic plants | 0.44mg/l      | 2             |

Continued...

## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

| acetone                | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|------------------------|-----------|--------------------|-------------------------------|------------------|--------|
|                        | NOEC(ECx) | 48h                | Fish                          | 0.001mg/L        | 4      |
|                        | LC50      | 96h                | Fish                          | >100mg/l         | 4      |
|                        | EC50      | 48h                | Crustacea                     | 6098.4mg/L       | 5      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 9.873-27.684mg/l | 4      |
| dimethyl ether         | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|                        | EC50      | 48h                | Crustacea                     | >4400mg/L        | 2      |
|                        | LC50      | 96h                | Fish                          | 1783.04mg/l      | 2      |
|                        | NOEC(ECx) | 48h                | Crustacea                     | >4000mg/l        | 1      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 154.917mg/l      | 2      |
| hydrocarbon propellant | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|                        | EC50(ECx) | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | LC50      | 96h                | Fish                          | 24.11mg/l        | 2      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | EC50(ECx) | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | LC50      | 96h                | Fish                          | 24.11mg/l        | 2      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms.

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

| Ingredient     | Persistence: Water/Soil     | Persistence: Air                 |
|----------------|-----------------------------|----------------------------------|
| xylene         | HIGH (Half-life = 360 days) | LOW (Half-life = 1.83 days)      |
| acetone        | LOW (Half-life = 14 days)   | MEDIUM (Half-life = 116.25 days) |
| dimethyl ether | LOW                         | LOW                              |

## Bioaccumulative potential

| Ingredient     | Bioaccumulation    |
|----------------|--------------------|
| xylene         | MEDIUM (BCF = 740) |
| acetone        | LOW (BCF = 0.69)   |
| dimethyl ether | LOW (LogKOW = 0.1) |

## Mobility in soil

| Ingredient     | Mobility           |
|----------------|--------------------|
| acetone        | HIGH (KOC = 1.981) |
| dimethyl ether | HIGH (KOC = 1.292) |


## SECTION 13 Disposal considerations

## Waste treatment methods

| Product / Packaging disposal | <ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ Discharge contents of damaged aerosol cans at an approved site.</li> <li>▶ Allow small quantities to evaporate.</li> <li>▶ <b>DO NOT</b> incinerate or puncture aerosol cans.</li> <li>▶ Bury residues and emptied aerosol cans at an approved site.</li> </ul> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 14 Transport information

## Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |  |
| Marine Pollutant | NO                                                                                  |

Continued...

Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)

|         |                |
|---------|----------------|
| HAZCHEM | Not Applicable |
|---------|----------------|

Land transport (ADG)

|                              |                    |                        |
|------------------------------|--------------------|------------------------|
| UN number                    | 1950               |                        |
| UN proper shipping name      | AEROSOLS           |                        |
| Transport hazard class(es)   | Class              | 2.1                    |
|                              | Subrisk            | Not Applicable         |
| Packing group                | Not Applicable     |                        |
| Environmental hazard         | Not Applicable     |                        |
| Special precautions for user | Special provisions | 63 190 277 327 344 381 |
|                              | Limited quantity   | 1000ml                 |

Air transport (ICAO-IATA / DGR)

|                              |                                                           |                |
|------------------------------|-----------------------------------------------------------|----------------|
| UN number                    | 1950                                                      |                |
| UN proper shipping name      | Aerosols, flammable                                       |                |
| Transport hazard class(es)   | ICAO/IATA Class                                           | 2.1            |
|                              | ICAO / IATA Subrisk                                       | Not Applicable |
|                              | ERG Code                                                  | 10L            |
| Packing group                | Not Applicable                                            |                |
| Environmental hazard         | Not Applicable                                            |                |
| Special precautions for user | Special provisions                                        | A145 A167 A802 |
|                              | Cargo Only Packing Instructions                           | 203            |
|                              | Cargo Only Maximum Qty / Pack                             | 150 kg         |
|                              | Passenger and Cargo Packing Instructions                  | 203            |
|                              | Passenger and Cargo Maximum Qty / Pack                    | 75 kg          |
|                              | Passenger and Cargo Limited Quantity Packing Instructions | Y203           |
|                              | Passenger and Cargo Limited Maximum Qty / Pack            | 30 kg G        |

Sea transport (IMDG-Code / GGVSee)

|                              |                    |                            |
|------------------------------|--------------------|----------------------------|
| UN number                    | 1950               |                            |
| UN proper shipping name      | AEROSOLS           |                            |
| Transport hazard class(es)   | IMDG Class         | 2.1                        |
|                              | IMDG Subrisk       | Not Applicable             |
| Packing group                | Not Applicable     |                            |
| Environmental hazard         | Not Applicable     |                            |
| Special precautions for user | EMS Number         | F-D , S-U                  |
|                              | Special provisions | 63 190 277 327 344 381 959 |
|                              | Limited Quantities | 1000 ml                    |

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name           | Group         |
|------------------------|---------------|
| xylene                 | Not Available |
| acetone                | Not Available |
| dimethyl ether         | Not Available |
| hydrocarbon propellant | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name           | Ship Type     |
|------------------------|---------------|
| xylene                 | Not Available |
| acetone                | Not Available |
| dimethyl ether         | Not Available |
| hydrocarbon propellant | Not Available |

SECTION 15 Regulatory information



## Dy-Mark Spray &amp; Mark - Fluorescent All Colours (DME/LPG Formula)

## Safety, health and environmental regulations / legislation specific for the substance or mixture

## xylene is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

## acetone is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

## dimethyl ether is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

## hydrocarbon propellant is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

## National Inventory Status

| National Inventory                              | Status                                                                                                                                                                                                   |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use | Yes                                                                                                                                                                                                      |
| Canada - DSL                                    | Yes                                                                                                                                                                                                      |
| Canada - NDSL                                   | No (xylene; acetone; dimethyl ether; hydrocarbon propellant)                                                                                                                                             |
| China - IECSC                                   | Yes                                                                                                                                                                                                      |
| Europe - EINEC / ELINCS / NLP                   | Yes                                                                                                                                                                                                      |
| Japan - ENCS                                    | Yes                                                                                                                                                                                                      |
| Korea - KECI                                    | Yes                                                                                                                                                                                                      |
| New Zealand - NZIoC                             | Yes                                                                                                                                                                                                      |
| Philippines - PICCS                             | Yes                                                                                                                                                                                                      |
| USA - TSCA                                      | Yes                                                                                                                                                                                                      |
| Taiwan - TCSI                                   | Yes                                                                                                                                                                                                      |
| Mexico - INSQ                                   | Yes                                                                                                                                                                                                      |
| Vietnam - NCI                                   | Yes                                                                                                                                                                                                      |
| Russia - FBEPH                                  | Yes                                                                                                                                                                                                      |
| <b>Legend:</b>                                  | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 02/06/2021 |
| Initial Date  | 27/11/2008 |

## SDS Version Summary

| Version  | Date of Update | Sections Updated     |
|----------|----------------|----------------------|
| 16.1.1.1 | 01/09/2020     | Classification       |
| 16.1.2.1 | 26/04/2021     | Regulation Change    |
| 16.1.3.1 | 03/05/2021     | Regulation Change    |
| 16.1.4.1 | 06/05/2021     | Regulation Change    |
| 16.1.5.1 | 10/05/2021     | Regulation Change    |
| 16.1.5.2 | 30/05/2021     | Template Change      |
| 17.1.5.2 | 02/06/2021     | Classification, Name |

## Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
 PC—STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists

Continued...

**Dy-Mark Spray & Mark - Fluorescent All Colours (DME/LPG Formula)**

STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit.  
IDLH: Immediately Dangerous to Life or Health Concentrations  
ES: Exposure Standard  
OSF: Odour Safety Factor  
NOAEL: No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index  
AIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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TEL (+61 3) 9572 4700.



## Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula) Dy-Mark

Chemwatch: 18-3984

Version No: 19.1.5.2

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 02/06/2021

Print Date: 02/06/2021

S.GHS.AUS.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### Product Identifier

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name                  | Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula)                                                                                                                                                                                                                                                                                                                                                                                |
| Chemical Name                 | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Synonyms                      | 40011203 Blue; 40023511 Hz White; 40011205 Yellow; 40011211 White; 40013501 Black; 40013502 Red; 40013503 Blue; 40013504 Green; 40013505 Yellow; 40013506 Orange; 40013507 Grey; 40013510 Silver 350g; 40013511 White; 40013513 Grey; 40013520 Tan; 40013533 Light Blue 350g; 40013535 Telstra Yellow SA; 40013555 L/F Yellow 350g; 40013558 Violet; 40033535 Yellow 350g 360°; 40043511 White 350g 360°; 40010603 Blue; 40010611 White |
| Proper shipping name          | AEROSOLS                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Chemical formula              | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Other means of identification | Not Available                                                                                                                                                                                                                                                                                                                                                                                                                           |

#### Relevant identified uses of the substance or mixture and uses advised against

|                          |                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------|
| Relevant identified uses | Application is by spray atomisation from a hand held aerosol pack<br>Use according to manufacturer's directions. |
|--------------------------|------------------------------------------------------------------------------------------------------------------|

#### Details of the supplier of the safety data sheet

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Registered company name | Dy-Mark                                                         |
| Address                 | 89 Formation Street Wacol QLD 4076 Australia                    |
| Telephone               | +61 7 3327 3004                                                 |
| Fax                     | +61 7 3327 3009                                                 |
| Website                 | <a href="http://www.dymark.com.au">http://www.dymark.com.au</a> |
| Email                   | info@dymark.com.au                                              |

#### Emergency telephone number

|                                   |                 |
|-----------------------------------|-----------------|
| Association / Organisation        | Dy-Mark         |
| Emergency telephone numbers       | +61 7 3327 3099 |
| Other emergency telephone numbers | Not Available   |

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

**HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

#### ChemWatch Hazard Ratings



|              | Min | Max |
|--------------|-----|-----|
| Flammability | 4   |     |
| Toxicity     | 2   |     |
| Body Contact | 2   |     |
| Reactivity   | 1   |     |
| Chronic      | 1   |     |

0 = Minimum  
1 = Low  
2 = Moderate  
3 = High  
4 = Extreme

|                    |                                                                                                                                                                                                        |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poisons Schedule   | Not Applicable                                                                                                                                                                                         |
| Classification [1] | Aerosols Category 1, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (narcotic effects), Acute Aquatic Hazard Category 3 |
| Legend:            | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI                                                                    |

#### Label elements

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

|                     |                                                                                                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictogram(s) |   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |        |
|-------------|--------|
| Signal word | Danger |
|-------------|--------|

## Hazard statement(s)

|           |                                                                          |
|-----------|--------------------------------------------------------------------------|
| AUH044    | Risk of explosion if heated under confinement.                           |
| H222+H229 | Extremely flammable aerosol; Pressurized container: may burst if heated. |
| H315      | Causes skin irritation.                                                  |
| H319      | Causes serious eye irritation.                                           |
| H336      | May cause drowsiness or dizziness.                                       |
| H402      | Harmful to aquatic life.                                                 |

## Precautionary statement(s) Prevention

|      |                                                                                                |
|------|------------------------------------------------------------------------------------------------|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211 | Do not spray on an open flame or other ignition source.                                        |
| P251 | Do not pierce or burn, even after use.                                                         |
| P271 | Use only outdoors or in a well-ventilated area.                                                |
| P261 | Avoid breathing mist/vapours/spray.                                                            |
| P273 | Avoid release to the environment.                                                              |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection.               |

## Precautionary statement(s) Response

|                |                                                                                                                                  |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P312           | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell.                                                            |
| P337+P313      | If eye irritation persists: Get medical advice/attention.                                                                        |
| P302+P352      | IF ON SKIN: Wash with plenty of water.                                                                                           |
| P304+P340      | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.                                                                         |
| P362+P364      | Take off contaminated clothing and wash it before reuse.                                                                         |

## Precautionary statement(s) Storage

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| P405      | Store locked up.                                                             |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed.             |

## Precautionary statement(s) Disposal

|      |                                                                                                                                  |
|------|----------------------------------------------------------------------------------------------------------------------------------|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|----------------------------------------------------------------------------------------------------------------------------------|

## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

| CAS No        | %[weight] | Name                                                                                                                                                                                         |
|---------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1330-20-7     | 10-30     | <u>xylene</u>                                                                                                                                                                                |
| 67-64-1       | 10-30     | <u>acetone</u>                                                                                                                                                                               |
| 115-10-6      | 10-30     | <u>dimethyl ether</u>                                                                                                                                                                        |
| 68476-85-7.   | 10-30     | <u>hydrocarbon propellant</u>                                                                                                                                                                |
| Not Available | balance   | Ingredients determined not to be hazardous                                                                                                                                                   |
| Not Available |           | The hydrocarbon propellant used in the product contains less than 0.1% w/w 1,3 butadiene                                                                                                     |
| Not Available |           | therefore product not classified as a carcinogen                                                                                                                                             |
| Legend:       |           | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available |

## SECTION 4 First aid measures

## Description of first aid measures

|             |                                                                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye Contact | If aerosols come in contact with the eyes:<br>► Immediately hold the eyelids apart and flush the eye continuously for at least 15 minutes with fresh running water. |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Continued...

## Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula)

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | <ul style="list-style-type: none"> <li>▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>▶ Transport to hospital or doctor without delay.</li> <li>▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>                                                                                                                                                                                                                                |
| <b>Skin Contact</b> | <p>If solids or aerosol mists are deposited upon the skin:</p> <ul style="list-style-type: none"> <li>▶ Flush skin and hair with running water (and soap if available).</li> <li>▶ Remove any adhering solids with industrial skin cleansing cream.</li> <li>▶ <b>DO NOT use solvents.</b></li> <li>▶ Seek medical attention in the event of irritation.</li> </ul>                                                                                                                                                                                                                                             |
| <b>Inhalation</b>   | <p>If aerosols, fumes or combustion products are inhaled:</p> <ul style="list-style-type: none"> <li>▶ Remove to fresh air.</li> <li>▶ Lay patient down. Keep warm and rested.</li> <li>▶ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>▶ If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>▶ Transport to hospital, or doctor.</li> </ul> |
| <b>Ingestion</b>    | <ul style="list-style-type: none"> <li>▶ Avoid giving milk or oils.</li> <li>▶ Avoid giving alcohol.</li> </ul> <p>Not considered a normal route of entry.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.  
for lower alkyl ethers:

#### BASIC TREATMENT

- ▶ Establish a patent airway with suction where necessary.
- ▶ Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- ▶ Administer oxygen by non-rebreather mask at 10 to 15 l/min.
- ▶ A low-stimulus environment must be maintained.
- ▶ Monitor and treat, where necessary, for shock.
- ▶ Anticipate and treat, where necessary, for seizures.
- ▶ **DO NOT use emetics.** Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

#### ADVANCED TREATMENT

- ▶ Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.
- ▶ Positive-pressure ventilation using a bag-valve mask might be of use.
- ▶ Monitor and treat, where necessary, for arrhythmias.
- ▶ Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.
- ▶ Drug therapy should be considered for pulmonary oedema.
- ▶ Hypotension without signs of hypovolaemia may require vasopressors.
- ▶ Treat seizures with diazepam.
- ▶ Proparacaine hydrochloride should be used to assist eye irrigation.

#### EMERGENCY DEPARTMENT

- ▶ Laboratory analysis of complete blood count, serum electrolytes, BUN, creatinine, glucose, urinalysis, baseline for serum aminotransferases (ALT and AST), calcium, phosphorus and magnesium, may assist in establishing a treatment regime. Other useful analyses include anion and osmolar gaps, arterial blood gases (ABGs), chest radiographs and electrocardiograph.
- ▶ Ethers may produce anion gap acidosis. Hyperventilation and bicarbonate therapy might be indicated.
- ▶ Haemodialysis might be considered in patients with impaired renal function.
- ▶ Consult a toxicologist as necessary.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For acute or short term repeated exposures to acetone:

- ▶ Symptoms of acetone exposure approximate ethanol intoxication.
- ▶ About 20% is expired by the lungs and the rest is metabolised. Alveolar air half-life is about 4 hours following two hour inhalation at levels near the Exposure Standard; in overdose, saturable metabolism and limited clearance, prolong the elimination half-life to 25-30 hours.
- ▶ There are no known antidotes and treatment should involve the usual methods of decontamination followed by supportive care.

[Ellenhorn and Barceloux: Medical Toxicology]

Management:

Measurement of serum and urine acetone concentrations may be useful to monitor the severity of ingestion or inhalation.

Inhalation Management:

- ▶ Maintain a clear airway, give humidified oxygen and ventilate if necessary.
- ▶ If respiratory irritation occurs, assess respiratory function and, if necessary, perform chest X-rays to check for chemical pneumonitis.
- ▶ Consider the use of steroids to reduce the inflammatory response.
- ▶ Treat pulmonary oedema with PEEP or CPAP ventilation.

Dermal Management:

- ▶ Remove any remaining contaminated clothing, place in double sealed, clear bags, label and store in secure area away from patients and staff.
- ▶ Irrigate with copious amounts of water.
- ▶ An emollient may be required.

Eye Management:

- ▶ Irrigate thoroughly with running water or saline for 15 minutes.
- ▶ Stain with fluorescein and refer to an ophthalmologist if there is any uptake of the stain.

Oral Management:

- ▶ No **GASTRIC LAVAGE OR EMETIC**
- ▶ Encourage oral fluids.

Systemic Management:

- ▶ Monitor blood glucose and arterial pH.
- ▶ Ventilate if respiratory depression occurs.
- ▶ If patient unconscious, monitor renal function.
- ▶ Symptomatic and supportive care.

The Chemical Incident Management Handbook:

Guy's and St. Thomas' Hospital Trust, 2000

Continued...

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

## BIOLOGICAL EXPOSURE INDEX

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant      | Sampling Time | Index   | Comments |
|------------------|---------------|---------|----------|
| Acetone in urine | End of shift  | 50 mg/L | NS       |

NS: Non-specific determinant; also observed after exposure to other material

For acute or short term repeated exposures to xylene:

- Gastro-intestinal absorption is significant with ingestions. For ingestions exceeding 1-2 ml (xylene)/kg, intubation and lavage with cuffed endotracheal tube is recommended. The use of charcoal and cathartics is equivocal.
- Pulmonary absorption is rapid with about 60-65% retained at rest.
- Primary threat to life from ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO<sub>2</sub> < 50 mm Hg or pCO<sub>2</sub> > 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.
- A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.
- Epinephrine (adrenalin) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

## BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

| Determinant                    | Index                            | Sampling Time                       | Comments |
|--------------------------------|----------------------------------|-------------------------------------|----------|
| Methylhippu-ric acids in urine | 1.5 gm/gm creatinine<br>2 mg/min | End of shift<br>Last 4 hrs of shift |          |

## SECTION 5 Firefighting measures

## Extinguishing media

## SMALL FIRE:

- Water spray, dry chemical or CO<sub>2</sub>

## LARGE FIRE:

- Water spray or fog.

## Special hazards arising from the substrate or mixture

|                      |                                                                                                                                          |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Incompatibility | ▸ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------|

## Advice for firefighters

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Fighting         | <ul style="list-style-type: none"> <li>▸ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▸ May be violently or explosively reactive.</li> <li>▸ Wear breathing apparatus plus protective gloves.</li> <li>▸ Prevent, by any means available, spillage from entering drains or water course.</li> <li>▸ If safe, switch off electrical equipment until vapour fire hazard removed.</li> <li>▸ Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li>▸ <b>DO NOT</b> approach containers suspected to be hot.</li> <li>▸ Cool fire exposed containers with water spray from a protected location.</li> <li>▸ If safe to do so, remove containers from path of fire.</li> <li>▸ Equipment should be thoroughly decontaminated after use.</li> </ul>                                                                                                                                                                                                                                                                                      |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> <li>▸ Liquid and vapour are highly flammable.</li> <li>▸ Severe fire hazard when exposed to heat or flame.</li> <li>▸ Vapour forms an explosive mixture with air.</li> <li>▸ Severe explosion hazard, in the form of vapour, when exposed to flame or spark.</li> <li>▸ Vapour may travel a considerable distance to source of ignition.</li> <li>▸ Heating may cause expansion or decomposition with violent container rupture.</li> <li>▸ Aerosol cans may explode on exposure to naked flames.</li> <li>▸ Rupturing containers may rocket and scatter burning materials.</li> <li>▸ Hazards may not be restricted to pressure effects.</li> <li>▸ May emit acrid, poisonous or corrosive fumes.</li> <li>▸ On combustion, may emit toxic fumes of carbon monoxide (CO).</li> </ul> <p>Combustion products include:<br/>carbon dioxide (CO<sub>2</sub>)<br/>other pyrolysis products typical of burning organic material.</p> <p><b>Contains low boiling substance:</b> Closed containers may rupture due to pressure buildup under fire conditions.</p> |
| HAZCHEM               | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## SECTION 6 Accidental release measures

## Personal precautions, protective equipment and emergency procedures

See section 8

## Environmental precautions

See section 12

## Methods and material for containment and cleaning up

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minor Spills | <ul style="list-style-type: none"> <li>▸ Clean up all spills immediately.</li> <li>▸ Avoid breathing vapours and contact with skin and eyes.</li> <li>▸ Wear protective clothing, impervious gloves and safety glasses.</li> <li>▸ Shut off all possible sources of ignition and increase ventilation.</li> <li>▸ Wipe up.</li> <li>▸ If safe, damaged cans should be placed in a container outdoors, away from all ignition sources, until pressure has dissipated.</li> <li>▸ Undamaged cans should be gathered and stowed safely.</li> </ul> |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

## Major Spills

- Remove leaking cylinders to a safe place if possible.
- Release pressure under safe, controlled conditions by opening the valve.
- DO NOT exert excessive pressure on valve; DO NOT attempt to operate damaged valve.**
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water courses.
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse / absorb vapour.
- Absorb or cover spill with sand, earth, inert materials or vermiculite.
- If safe, damaged cans should be placed in a container outdoors, away from ignition sources, until pressure has dissipated.
- Undamaged cans should be gathered and stowed safely.
- Collect residues and seal in labelled drums for disposal.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 Handling and storage

## Precautions for safe handling

## Safe handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.**
- Avoid smoking, naked lights or ignition sources.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.**
- DO NOT incinerate or puncture aerosol cans.**
- DO NOT spray directly on humans, exposed food or food utensils.**
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storage and handling recommendations contained within this SDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

## Other information

- Keep dry to avoid corrosion of cans. Corrosion may result in container perforation and internal pressure may eject contents of can.
- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.**
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed. Contents under pressure.
- Store away from incompatible materials.
- Store in a cool, dry, well ventilated area.
- Avoid storage at temperatures higher than 40 deg C.
- Store in an upright position.
- Protect containers against physical damage.
- Check regularly for spills and leaks.
- Observe manufacturer's storage and handling recommendations contained within this SDS.

## Conditions for safe storage, including any incompatibilities

## Suitable container

- Aerosol dispenser.
- Check that containers are clearly labelled.

## Storage incompatibility

- Avoid reaction with oxidising agents



X — Must not be stored together

0 — May be stored together with specific preventions

+

Note: Depending on other risk factors, compatibility assessment based on the table above may not be relevant to storage situations, particularly where large volumes of dangerous goods are stored and handled. Reference should be made to the Safety Data Sheets for each substance or article and risks assessed accordingly.

## SECTION 8 Exposure controls / personal protection

## Control parameters

## Occupational Exposure Limits (OEL)

## INGREDIENT DATA

| Source                       | Ingredient | Material name               | TWA                  | STEL                  | Peak          | Notes         |
|------------------------------|------------|-----------------------------|----------------------|-----------------------|---------------|---------------|
| Australia Exposure Standards | xylene     | Xylene (o-, m-, p- isomers) | 80 ppm / 350 mg/m3   | 655 mg/m3 / 150 ppm   | Not Available | Not Available |
| Australia Exposure Standards | acetone    | Acetone                     | 500 ppm / 1185 mg/m3 | 2375 mg/m3 / 1000 ppm | Not Available | Not Available |

Continued...

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)


| Source                       | Ingredient             | Material name                 | TWA                   | STEL                | Peak          | Notes         |
|------------------------------|------------------------|-------------------------------|-----------------------|---------------------|---------------|---------------|
| Australia Exposure Standards | dimethyl ether         | Dimethyl ether                | 400 ppm / 760 mg/m3   | 950 mg/m3 / 500 ppm | Not Available | Not Available |
| Australia Exposure Standards | hydrocarbon propellant | LPG (liquified petroleum gas) | 1000 ppm / 1800 mg/m3 | Not Available       | Not Available | Not Available |

## Emergency Limits

| Ingredient             | TEEL-1        | TEEL-2        | TEEL-3        |
|------------------------|---------------|---------------|---------------|
| xylene                 | Not Available | Not Available | Not Available |
| acetone                | Not Available | Not Available | Not Available |
| dimethyl ether         | 3,000 ppm     | 3800* ppm     | 7200* ppm     |
| hydrocarbon propellant | 65,000 ppm    | 2.30E+05 ppm  | 4.00E+05 ppm  |

| Ingredient             | Original IDLH | Revised IDLH  |
|------------------------|---------------|---------------|
| xylene                 | 900 ppm       | Not Available |
| acetone                | 2,500 ppm     | Not Available |
| dimethyl ether         | Not Available | Not Available |
| hydrocarbon propellant | 2,000 ppm     | Not Available |

## Exposure controls

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Appropriate engineering controls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are:<br>Process controls which involve changing the way a job activity or process is done to reduce the risk.<br>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.<br>Employers may need to use multiple types of controls to prevent employee overexposure.                                                                         |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | General exhaust is adequate under normal conditions. If risk of overexposure exists, wear SAA approved respirator. Correct fit is essential to obtain adequate protection.<br>Provide adequate ventilation in warehouse or closed storage areas.<br>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Type of Contaminant:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Speed:                           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | aerosols, (released at low velocity into zone of active generation)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.5-1 m/s                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | direct spray, spray painting in shallow booths, gas discharge (active generation into zone of rapid air motion)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1-2.5 m/s (200-500 f/min.)       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Within each range the appropriate value depends on:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Lower end of the range                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Upper end of the range           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1: Room air currents minimal or favourable to capture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1: Disturbing room air currents  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2: Contaminants of low toxicity or of nuisance value only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2: Contaminants of high toxicity |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3: Intermittent, low production.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3: High production, heavy use    |
| 4: Large hood or large air mass in motion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 4: Small hood-local control only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                  |
| Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  |
| Personal protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                  |
| Eye and face protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <ul style="list-style-type: none"><li>▶ Safety glasses with side shields.</li><li>▶ Chemical goggles.</li><li>▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li></ul> |                                  |
| Skin protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See Hand protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                  |
| Hands/feet protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>▶ No special equipment needed when handling small quantities.</li><li>▶ <b>OTHERWISE:</b></li><li>▶ For potentially moderate exposures:</li><li>▶ Wear general protective gloves, eg. light weight rubber gloves.</li><li>▶ For potentially heavy exposures:</li><li>▶ Wear chemical protective gloves, eg. PVC. and safety footwear.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                  |
| Body protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | See Other protection below                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

## Other protection

No special equipment needed when handling small quantities.

**OTHERWISE:**

- ▶ Overalls.
- ▶ Skin cleansing cream.
- ▶ Eyewash unit.
- ▶ Do not spray on hot surfaces.
- ▶ The clothing worn by process operators insulated from earth may develop static charges far higher (up to 100 times) than the minimum ignition energies for various flammable gas-air mixtures. This holds true for a wide range of clothing materials including cotton.
- ▶ Avoid dangerous levels of charge by ensuring a low resistivity of the surface material worn outermost.

BREThERICK: Handbook of Reactive Chemical Hazards.

## Recommended material(s)

## GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

**"Forsberg Clothing Performance Index".**

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula)

| Material          | CPI |
|-------------------|-----|
| BUTYL             | C   |
| BUTYL/NEOPRENE    | C   |
| CPE               | C   |
| HYPALON           | C   |
| NAT+NEOPR+NITRILE | C   |
| NATURAL RUBBER    | C   |
| NATURAL+NEOPRENE  | C   |
| NEOPRENE          | C   |
| NEOPRENE/NATURAL  | C   |
| NITRILE           | C   |
| NITRILE+PVC       | C   |
| PE/EVAL/PE        | C   |
| PVA               | C   |
| PVC               | C   |
| PVDC/PE/PVDC      | C   |
| SARANEX-23        | C   |
| SARANEX-23 2-PLY  | C   |
| TEFLON            | C   |
| VITON             | C   |
| VITON/NEOPRENE    | C   |

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

**NOTE:** As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

## Respiratory protection

Type AX Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | AX-AUS / Class 1     | -                    | AX-PAPR-AUS / Class 1  |
| up to 50 x ES                      | Air-line*            | -                    | -                      |
| up to 100 x ES                     | -                    | AX-3                 | -                      |
| 100+ x ES                          | -                    | Air-line**           | -                      |

\* - Continuous-flow; \*\* - Continuous-flow or positive pressure demand

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

## SECTION 9 Physical and chemical properties

## Information on basic physical and chemical properties

| Appearance                                   | Flammable coloured liquid; partly miscible with water.<br>Supplied as an aerosol pack. Contents under <b>PRESSURE</b> . Contains highly flammable hydrocarbon propellant. |                                         |                |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------|
| Physical state                               | Liquid                                                                                                                                                                    | Relative density (Water = 1)            | Not Available  |
| Odour                                        | Not Available                                                                                                                                                             | Partition coefficient n-octanol / water | Not Available  |
| Odour threshold                              | Not Available                                                                                                                                                             | Auto-ignition temperature (°C)          | Not Available  |
| pH (as supplied)                             | Not Applicable                                                                                                                                                            | Decomposition temperature               | Not Available  |
| Melting point / freezing point (°C)          | Not Available                                                                                                                                                             | Viscosity (cSt)                         | Not Available  |
| Initial boiling point and boiling range (°C) | Not Available                                                                                                                                                             | Molecular weight (g/mol)                | Not Applicable |
| Flash point (°C)                             | -81 (propellant)                                                                                                                                                          | Taste                                   | Not Available  |
| Evaporation rate                             | Not Available                                                                                                                                                             | Explosive properties                    | Not Available  |
| Flammability                                 | HIGHLY FLAMMABLE.                                                                                                                                                         | Oxidising properties                    | Not Available  |

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

|                           |                 |                                  |               |
|---------------------------|-----------------|----------------------------------|---------------|
| Upper Explosive Limit (%) | Not Available   | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available   | Volatile Component (%vol)        | >50 (VOC)     |
| Vapour pressure (kPa)     | Not Available   | Gas group                        | Not Available |
| Solubility in water       | Partly miscible | pH as a solution (%)             | Not Available |
| Vapour density (Air = 1)  | Not Available   | VOC g/L                          | Not Available |

## SECTION 10 Stability and reactivity

|                                    |                                                                                                                                                                                                            |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | See section 7                                                                                                                                                                                              |
| Chemical stability                 | <ul style="list-style-type: none"> <li>▸ Elevated temperatures.</li> <li>▸ Presence of open flame.</li> <li>▸ Product is considered stable.</li> <li>▸ Hazardous polymerisation will not occur.</li> </ul> |
| Possibility of hazardous reactions | See section 7                                                                                                                                                                                              |
| Conditions to avoid                | See section 7                                                                                                                                                                                              |
| Incompatible materials             | See section 7                                                                                                                                                                                              |
| Hazardous decomposition products   | See section 5                                                                                                                                                                                              |

## SECTION 11 Toxicological information

## Information on toxicological effects

|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhaled      | <p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.</p> <p>Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.</p> <p>There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.</p> <p>The acute toxicity of inhaled alkylbenzene is best described by central nervous system depression. These compounds may also act as general anaesthetics. Whole body symptoms of poisoning include light-headedness, nervousness, apprehension, a feeling of well-being, confusion, dizziness, drowsiness, ringing in the ears, blurred or double vision, vomiting and sensations of heat, cold or numbness, twitching, tremors, convulsions, unconsciousness, depression of breathing, and arrest. Heart stoppage may result from cardiovascular collapse. A slow heart rate and low blood pressure may also occur.</p> <p>Alkylbenzenes are not generally toxic except at high levels of exposure. Their breakdown products have low toxicity and are easily eliminated from the body.</p> <p>Inhalation of toxic gases may cause:</p> <ul style="list-style-type: none"> <li>▸ Central Nervous System effects including depression, headache, confusion, dizziness, stupor, coma and seizures;</li> <li>▸ respiratory: acute lung swellings, shortness of breath, wheezing, rapid breathing, other symptoms and respiratory arrest;</li> <li>▸ heart: collapse, irregular heartbeats and cardiac arrest;</li> <li>▸ gastrointestinal: irritation, ulcers, nausea and vomiting (may be bloody), and abdominal pain.</li> </ul> <p>Following inhalation, ethers cause lethargy and stupor. Inhaling lower alkyl ethers results in headache, dizziness, weakness, blurred vision, seizures and possible coma.</p> <p>Material is highly volatile and may quickly form a concentrated atmosphere in confined or unventilated areas. The vapour may displace and replace air in breathing zone, acting as a simple asphyxiant. This may happen with little warning of overexposure.</p> <p>Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.</p> <p><b>WARNING: Intentional misuse by concentrating/inhaling contents may be lethal.</b></p> |
| Ingestion    | <p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Not normally a hazard due to physical form of product.</p> <p>Considered an unlikely route of entry in commercial/industrial environments</p> <p>Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733)</p> <p>Ingestion of alkyl ethers may produce stupor, blurred vision, headache, dizziness and irritation of the nose and throat. Respiratory distress and asphyxia may result.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Skin Contact | <p>Skin contact with the material may be harmful; systemic effects may result following absorption.</p> <p>The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.</p> <p>The material may accentuate any pre-existing dermatitis condition</p> <p>Repeated exposure may cause skin cracking, flaking or drying following normal handling and use.</p> <p>Spray mist may produce discomfort</p> <p>Alkyl ethers may defat and dehydrate the skin producing dermatoses. Absorption may produce headache, dizziness, and central nervous system depression.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Eye          | <p>Not considered to be a risk because of the extreme volatility of the gas. Eye contact with alkyl ethers (vapour or liquid) may produce irritation, redness and tears.</p> <p>There is evidence that material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Severe inflammation may be expected with pain.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Chronic      | <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>There is some evidence from animal testing that exposure to this material may result in toxic effects to the unborn baby.</p> <p>Main route of exposure to the gas in the workplace is by inhalation.</p> <p>Chronic exposure to alkyl ethers may result in loss of appetite, excessive thirst, fatigue, and weight loss.</p> <p>Women exposed to xylene in the first 3 months of pregnancy showed a slightly increased risk of miscarriage and birth defects. Evaluation of workers chronically exposed to xylene has demonstrated lack of genetic toxicity.</p> <p>Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS]</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

| Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula)                                                                                                                                                                                     | TOXICITY                                          | IRRITATION                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------|
|                                                                                                                                                                                                                                              | Not Available                                     | Not Available                                            |
| xylene                                                                                                                                                                                                                                       | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Dermal (rabbit) LD50: >1700 mg/kg <sup>[2]</sup>  | Eye (human): 200 ppm irritant                            |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; 5922 ppm4h <sup>[1]</sup>   | Eye (rabbit): 5 mg/24h SEVERE                            |
|                                                                                                                                                                                                                                              | Oral(Mouse) LD50; 1548 mg/kg <sup>[2]</sup>       | Eye (rabbit): 87 mg mild                                 |
|                                                                                                                                                                                                                                              |                                                   | Eye: adverse effect observed (irritating) <sup>[1]</sup> |
|                                                                                                                                                                                                                                              |                                                   | Skin (rabbit):500 mg/24h moderate                        |
| acetone                                                                                                                                                                                                                                      | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Dermal (rabbit) LD50: 20 mg/kg <sup>[2]</sup>     | Eye (human): 500 ppm - irritant                          |
|                                                                                                                                                                                                                                              | Inhalation(Mouse) LC50; 44 mg/L4h <sup>[2]</sup>  | Eye (rabbit): 20mg/24hr -moderate                        |
|                                                                                                                                                                                                                                              | Oral(Rat) LD50; 1738 mg/kg <sup>[1]</sup>         | Eye (rabbit): 3.95 mg - SEVERE                           |
|                                                                                                                                                                                                                                              |                                                   | Eye: adverse effect observed (irritating) <sup>[1]</sup> |
|                                                                                                                                                                                                                                              |                                                   | Skin (rabbit): 500 mg/24hr - mild                        |
| dimethyl ether                                                                                                                                                                                                                               | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; >20000 ppm4h <sup>[1]</sup> | Not Available                                            |
| hydrocarbon propellant                                                                                                                                                                                                                       | TOXICITY                                          | IRRITATION                                               |
|                                                                                                                                                                                                                                              | Inhalation(Rat) LC50; 658 mg/l4h <sup>[2]</sup>   | Not Available                                            |
| <b>Legend:</b> 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances |                                                   |                                                          |

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>XYLENE</b>                                                                     | Reproductive effector in rats<br>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.<br>The substance is classified by IARC as Group 3:<br><b>NOT</b> classifiable as to its carcinogenicity to humans.<br>Evidence of carcinogenicity may be inadequate or limited in animal testing. |
| <b>HYDROCARBON PROPELLANT</b>                                                     | No significant acute toxicological data identified in literature search. inhalation of the gas                                                                                                                                                                                                                                                                                                    |
| <b>Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula) &amp; ACETONE</b> | For acetone:<br>The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer, but it removes fat from the skin, and it also irritates the eye. Animal testing shows acetone may cause macrocytic anaemia. Studies in humans have shown that exposure to acetone at a level of 2375 mg/cubic metre has not caused neurobehavioural deficits.                                 |
| <b>XYLENE &amp; ACETONE</b>                                                       | The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.                                                                                                                                                                                                    |

|                                          |   |                                 |   |
|------------------------------------------|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✓ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✓ | <b>STOT - Single Exposure</b>   | ✓ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✗ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

## Toxicity

| Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula) | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|----------------------------------------------------------|---------------|--------------------|-------------------------------|---------------|---------------|
|                                                          | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| xylene                                                   | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|                                                          | EC50          | 72h                | Algae or other aquatic plants | 4.6mg/l       | 2             |
|                                                          | LC50          | 96h                | Fish                          | 2.6mg/l       | 2             |
|                                                          | EC50          | 48h                | Crustacea                     | 1.8mg/l       | 2             |
|                                                          | NOEC(ECx)     | 73h                | Algae or other aquatic plants | 0.44mg/l      | 2             |

Continued...

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

| acetone                | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|------------------------|-----------|--------------------|-------------------------------|------------------|--------|
|                        | NOEC(ECx) | 48h                | Fish                          | 0.001mg/L        | 4      |
|                        | LC50      | 96h                | Fish                          | >100mg/l         | 4      |
|                        | EC50      | 48h                | Crustacea                     | 6098.4mg/L       | 5      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 9.873-27.684mg/l | 4      |
| dimethyl ether         | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|                        | EC50      | 48h                | Crustacea                     | >4400mg/L        | 2      |
|                        | LC50      | 96h                | Fish                          | 1783.04mg/l      | 2      |
|                        | NOEC(ECx) | 48h                | Crustacea                     | >4000mg/l        | 1      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 154.917mg/l      | 2      |
| hydrocarbon propellant | Endpoint  | Test Duration (hr) | Species                       | Value            | Source |
|                        | EC50(ECx) | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | LC50      | 96h                | Fish                          | 24.11mg/l        | 2      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | EC50(ECx) | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |
|                        | LC50      | 96h                | Fish                          | 24.11mg/l        | 2      |
|                        | EC50      | 96h                | Algae or other aquatic plants | 7.71mg/l         | 2      |

**Legend:** Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms.

**DO NOT** discharge into sewer or waterways.

## Persistence and degradability

| Ingredient     | Persistence: Water/Soil     | Persistence: Air                 |
|----------------|-----------------------------|----------------------------------|
| xylene         | HIGH (Half-life = 360 days) | LOW (Half-life = 1.83 days)      |
| acetone        | LOW (Half-life = 14 days)   | MEDIUM (Half-life = 116.25 days) |
| dimethyl ether | LOW                         | LOW                              |

## Bioaccumulative potential

| Ingredient     | Bioaccumulation    |
|----------------|--------------------|
| xylene         | MEDIUM (BCF = 740) |
| acetone        | LOW (BCF = 0.69)   |
| dimethyl ether | LOW (LogKOW = 0.1) |

## Mobility in soil

| Ingredient     | Mobility           |
|----------------|--------------------|
| acetone        | HIGH (KOC = 1.981) |
| dimethyl ether | HIGH (KOC = 1.292) |


## SECTION 13 Disposal considerations

## Waste treatment methods

| Product / Packaging disposal | <ul style="list-style-type: none"> <li>▶ <b>DO NOT</b> allow wash water from cleaning or process equipment to enter drains.</li> <li>▶ It may be necessary to collect all wash water for treatment before disposal.</li> <li>▶ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>▶ Where in doubt contact the responsible authority.</li> <li>▶ Consult State Land Waste Management Authority for disposal.</li> <li>▶ Discharge contents of damaged aerosol cans at an approved site.</li> <li>▶ Allow small quantities to evaporate.</li> <li>▶ <b>DO NOT</b> incinerate or puncture aerosol cans.</li> <li>▶ Bury residues and emptied aerosol cans at an approved site.</li> </ul> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SECTION 14 Transport information

## Labels Required

|                  |                                                                                     |
|------------------|-------------------------------------------------------------------------------------|
|                  |  |
| Marine Pollutant | NO                                                                                  |

## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

|         |                |
|---------|----------------|
| HAZCHEM | Not Applicable |
|---------|----------------|

## Land transport (ADG)

|                              |                    |                        |
|------------------------------|--------------------|------------------------|
| UN number                    | 1950               |                        |
| UN proper shipping name      | AEROSOLS           |                        |
| Transport hazard class(es)   | Class              | 2.1                    |
|                              | Subrisk            | Not Applicable         |
| Packing group                | Not Applicable     |                        |
| Environmental hazard         | Not Applicable     |                        |
| Special precautions for user | Special provisions | 63 190 277 327 344 381 |
|                              | Limited quantity   | 1000ml                 |

## Air transport (ICAO-IATA / DGR)

|                              |                                                           |                |
|------------------------------|-----------------------------------------------------------|----------------|
| UN number                    | 1950                                                      |                |
| UN proper shipping name      | Aerosols, flammable                                       |                |
| Transport hazard class(es)   | ICAO/IATA Class                                           | 2.1            |
|                              | ICAO / IATA Subrisk                                       | Not Applicable |
|                              | ERG Code                                                  | 10L            |
| Packing group                | Not Applicable                                            |                |
| Environmental hazard         | Not Applicable                                            |                |
| Special precautions for user | Special provisions                                        | A145 A167 A802 |
|                              | Cargo Only Packing Instructions                           | 203            |
|                              | Cargo Only Maximum Qty / Pack                             | 150 kg         |
|                              | Passenger and Cargo Packing Instructions                  | 203            |
|                              | Passenger and Cargo Maximum Qty / Pack                    | 75 kg          |
|                              | Passenger and Cargo Limited Quantity Packing Instructions | Y203           |
|                              | Passenger and Cargo Limited Maximum Qty / Pack            | 30 kg G        |

## Sea transport (IMDG-Code / GGVSee)

|                              |                    |                            |  |
|------------------------------|--------------------|----------------------------|--|
| UN number                    | 1950               |                            |  |
| UN proper shipping name      | AEROSOLS           |                            |  |
| Transport hazard class(es)   | IMDG Class         | 2.1                        |  |
|                              | IMDG Subrisk       | Not Applicable             |  |
| Packing group                | Not Applicable     |                            |  |
| Environmental hazard         | Not Applicable     |                            |  |
| Special precautions for user | EMS Number         | F-D , S-U                  |  |
|                              | Special provisions | 63 190 277 327 344 381 959 |  |
|                              | Limited Quantities | 1000 ml                    |  |

## Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name           | Group         |
|------------------------|---------------|
| xylene                 | Not Available |
| acetone                | Not Available |
| dimethyl ether         | Not Available |
| hydrocarbon propellant | Not Available |

## Transport in bulk in accordance with the ICG Code

| Product name           | Ship Type     |
|------------------------|---------------|
| xylene                 | Not Available |
| acetone                | Not Available |
| dimethyl ether         | Not Available |
| hydrocarbon propellant | Not Available |

## SECTION 15 Regulatory information

Continued...



## Dy-Mark Spray &amp; Mark - Std All Colours (DME/LPG Formula)

## Safety, health and environmental regulations / legislation specific for the substance or mixture

## xylene is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)  
 International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

## acetone is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

## dimethyl ether is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

## hydrocarbon propellant is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals  
 Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

## National Inventory Status

| National Inventory                              | Status                                                                                                                                                                                                   |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Australia - AIIC / Australia Non-Industrial Use | Yes                                                                                                                                                                                                      |
| Canada - DSL                                    | Yes                                                                                                                                                                                                      |
| Canada - NDSL                                   | No (xylene; acetone; dimethyl ether; hydrocarbon propellant)                                                                                                                                             |
| China - IECSC                                   | Yes                                                                                                                                                                                                      |
| Europe - EINEC / ELINCS / NLP                   | Yes                                                                                                                                                                                                      |
| Japan - ENCS                                    | Yes                                                                                                                                                                                                      |
| Korea - KECI                                    | Yes                                                                                                                                                                                                      |
| New Zealand - NZIoC                             | Yes                                                                                                                                                                                                      |
| Philippines - PICCS                             | Yes                                                                                                                                                                                                      |
| USA - TSCA                                      | Yes                                                                                                                                                                                                      |
| Taiwan - TCSI                                   | Yes                                                                                                                                                                                                      |
| Mexico - INSQ                                   | Yes                                                                                                                                                                                                      |
| Vietnam - NCI                                   | Yes                                                                                                                                                                                                      |
| Russia - FBEPH                                  | Yes                                                                                                                                                                                                      |
| <b>Legend:</b>                                  | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets) |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 02/06/2021 |
| Initial Date  | 27/11/2008 |

## SDS Version Summary

| Version  | Date of Update | Sections Updated     |
|----------|----------------|----------------------|
| 18.1.1.1 | 30/05/2020     | Synonyms             |
| 18.1.2.1 | 26/04/2021     | Regulation Change    |
| 18.1.3.1 | 03/05/2021     | Regulation Change    |
| 18.1.4.1 | 06/05/2021     | Regulation Change    |
| 18.1.5.1 | 10/05/2021     | Regulation Change    |
| 18.1.5.2 | 30/05/2021     | Template Change      |
| 19.1.5.2 | 02/06/2021     | Classification, Name |

## Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

## Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
 PC—STEL: Permissible Concentration-Short Term Exposure Limit  
 IARC: International Agency for Research on Cancer  
 ACGIH: American Conference of Governmental Industrial Hygienists

Continued...

**Dy-Mark Spray & Mark - Std All Colours (DME/LPG Formula)**

STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit.  
IDLH: Immediately Dangerous to Life or Health Concentrations  
ES: Exposure Standard  
OSF: Odour Safety Factor  
NOAEL: No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index  
AIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European Inventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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