

Molybond Pumpable Guide Rope Grease

ITW POLYMERS & FLUIDS

Chemwatch: 45135
Version No: 4.1.1.1
Safety Data Sheet according to WHS and ADG requirements

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S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

| | |
|-------------------------------|-------------------------------------|
| Product name | Molybond Pumpable Guide Rope Grease |
| Other means of identification | Not Available |

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

| | |
|--------------------------|-----------|
| Relevant identified uses | Rope oil. |
|--------------------------|-----------|

Details of the supplier of the safety data sheet

| | |
|-------------------------|---|
| Registered company name | ITW POLYMERS & FLUIDS |
| Address | 100 Hassall Street, Wetherill Park Not Available 2164 NSW Australia |
| Telephone | +61 2 9757 8800 |
| Fax | +61 2 9757 3855 |
| Website | www.itwpcf.com.au |
| Email | Not Available |

Emergency telephone number

| | | |
|-----------------------------------|-----------------|----------------|
| Association / Organisation | Not Available | Not Available |
| Emergency telephone numbers | 1800 039 008 | 0800 2436 2255 |
| Other emergency telephone numbers | +61 3 9573 3112 | Not Available |

CHEMWATCH EMERGENCY RESPONSE

| Primary Number | Alternative Number 1 | Alternative Number 2 |
|----------------|----------------------|----------------------|
| 1800 039 008 | 1800 039 008 | +612 9186 1132 |

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

| | |
|-------------------------------|--|
| Poisons Schedule | Not Applicable |
| Classification ^[1] | Flammable Liquid Category 4 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

| | |
|---------------------|----------------|
| Hazard pictogram(s) | Not Applicable |
| SIGNAL WORD | WARNING |

Hazard statement(s)

| | |
|------|---------------------|
| H227 | Combustible liquid. |
|------|---------------------|

Precautionary statement(s) Prevention

| | |
|------|--|
| P210 | Keep away from heat/sparks/open flames/hot surfaces. - No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |

Precautionary statement(s) Response

| | |
|-----------|--|
| P370+P378 | In case of fire: Use alcohol resistant foam or normal protein foam for extinction. |
|-----------|--|

Precautionary statement(s) Storage

| | |
|-----------|--|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
|-----------|--|

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Precautionary statement(s) Disposal

| | |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|------|---|

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|---------------|-----------|--|
| Not Available | >60 | <u>mineral oil</u> (solvent refined) |
| 7782-42-5 | <10 | <u>graphite</u> |
| Not Available | 10-30 | performance additives nonhazardous NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment. |

SECTION 4 FIRST AID MEASURES

Description of first aid measures

| General | |
|--------------|--|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> Wash out immediately with fresh running water. 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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. <p>If failure/misuse of high pressure/hydraulic equipment results in injection of grease/oil through the skin seek urgent medical attention. Treat as surgical emergency.</p> |
| Inhalation | <ul style="list-style-type: none"> If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. |
| Ingestion | <ul style="list-style-type: none"> If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

- Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

NOTE: Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

| | |
|--|---|
| | <ul style="list-style-type: none"> Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. |
|--|---|

Special hazards arising from the substrate or mixture

| | |
|----------------------|---|
| Fire Incompatibility | Avoid contamination with strong oxidising agents as ignition may result |
|----------------------|---|

Advice for firefighters

| | |
|-----------------------|---|
| Fire Fighting | <ul style="list-style-type: none"> Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). |

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Other combustion products include:
carbon dioxide (CO2)
,
sulfur oxides (SOx)
and
metal oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|---------------------|--|
| Minor Spills | Slippery when spilt. <ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. |
| Major Spills | Slippery when spilt. No smoking, naked lights or ignition sources. Minor hazard. <ul style="list-style-type: none"> ▶ Clear area of personnel. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Control personal contact with the substance, by using protective equipment as required. |

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"> ▶ Avoid smoking, naked lights or ignition sources. ▶ Limit all unnecessary personal contact. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Avoid contact with incompatible materials. |
| Other information | <ul style="list-style-type: none"> ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ No smoking, naked lights or ignition sources. ▶ Store in a cool, dry, well-ventilated area. |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | <ul style="list-style-type: none"> ▶ Metal can or drum ▶ Packaging as recommended by manufacturer. ▶ Check all containers are clearly labelled and free from leaks. |
| Storage incompatibility | Avoid storage with oxidisers |

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 | mineral oil | Oil mist, refined mineral | 5 mg/m3 | Not Available | Not Available | Not Available |
| Australia Exposure Standards | graphite | Graphite (all forms except fibres) (respirable dust) (natural & synthetic) | 3 mg/m3 | Not Available | Not Available | Not Available |

EMERGENCY LIMITS


| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|------------|----------------------------|---------|----------|----------|
| graphite | Graphite; (Mineral carbon) | 6 mg/m3 | 16 mg/m3 | 95 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|------------------------------------|---------------|---------------|
| mineral oil | 2500 mg/m3 | Not Available |
| graphite | 1250 mg/m3 | Not Available |
| performance additives nonhazardous | Not Available | 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: Process controls which involve changing the way a job activity or process is done to reduce the risk. 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. |
|---|---|

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| | |
|--------------------------------|---|
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Safety glasses with side shields; or as required, ▶ Chemical goggles. ▶ 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. |
| Skin protection | See Hand protection below |
| Hands/feet protection | Wear chemical protective gloves, e.g. PVC. Wear safety footwear. |
| Body protection | See Other protection below |
| Other protection | <ul style="list-style-type: none"> ▶ Overalls. ▶ Barrier cream ▶ Eyewash unit. |
| Thermal hazards | Not Available |

Respiratory protection

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

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES | A P1 Air-line* | - - | A PAPR-P1 - |
| up to 50 x ES | Air-line** | A P2 | A PAPR-P2 |
| up to 100 x ES | - | A P3 Air-line* | - |
| 100+ x ES | - | Air-line** | A PAPR-P3 |

* - Negative pressure demand ** - Continuous flow

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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

| | | | |
|---|---------------------------------------|--|----------------|
| Appearance | Dark grease; does not mix with water. | | |
| Physical state | Non Slump Paste | 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) | >61 | Taste | Not Available |
| Evaporation rate | Not Applicable | Explosive properties | Not Available |
| Flammability | Combustible. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Applicable |
| Vapour pressure (kPa) | Not Applicable | Gas group | Not Available |
| Solubility in water (g/L) | Immiscible | pH as a solution (1%) | Not Applicable |
| 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"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |

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| | |
|---|---------------|
| Hazardous decomposition products | See section 5 |
|---|---------------|

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

| | |
|---------------------|---|
| Inhaled | The vapour is discomfoting to the upper respiratory tract Acute effects from inhalation of high vapour concentrations may be chest and nasal irritation with coughing, sneezing, headache and even nausea. Inhalation of vapour is more likely at higher than normal temperatures. |
| Ingestion | The material is slightly discomfoting to the gastro-intestinal tract Considered an unlikely route of entry in commercial/industrial environments |
| Skin Contact | The material is slightly discomfoting to the skin if exposure is prolonged and is capable of causing skin reactions which may lead to dermatitis from repeated exposures over long periods |
| Eye | The material is slightly discomfoting to the eyes |
| Chronic | Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet. |

| | | |
|--|----------|------------|
| Molybond Pumpable Guide Rope Grease | TOXICITY | IRRITATION |
| mineral oil | TOXICITY | IRRITATION |
| graphite | TOXICITY | IRRITATION |

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

| | |
|--------------------|---|
| MINERAL OIL | Toxicity and Irritation data for petroleum-based mineral oils are related to chemical components and vary as does the composition and source of the original crude. A small but definite risk of occupational skin cancer occurs in workers exposed to persistent skin contamination by oils over a period of years. This risk has been attributed to the presence of certain polycyclic aromatic hydrocarbons (PAH) (typified by benz[a]pyrene). Petroleum oils which are solvent refined/extracted or severely hydrotreated, contain very low concentrations of both. |
| GRAPHITE | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. No significant acute toxicological data identified in literature search. |

| | | | |
|--|---|---------------------------------|---|
| Acute Toxicity | ⊖ | Carcinogenicity | ⊖ |
| Skin Irritation/Corrosion | ⊖ | Reproductivity | ⊖ |
| Serious Eye Damage/Irritation | ⊖ | STOT - Single Exposure | ⊖ |
| Respiratory or Skin sensitisation | ⊖ | STOT - Repeated Exposure | ⊖ |
| Mutagenicity | ⊖ | Aspiration Hazard | ⊖ |

Legend: ✔ - Data available to make classification
✘ - Data available but does not fill the criteria for classification
⊖ - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

NOT AVAILABLE

| Ingredient | Endpoint | Test Duration (hr) | Effect | Value | Species | BCF |
|-------------------------------------|---------------|--------------------|---------------|---------------|---------------|---------------|
| Molybond Pumpable Guide Rope Grease | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |

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| | | | | | | |
|-------------|---------------|---------------|---------------|---------------|---------------|---------------|
| mineral oil | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |
| graphite | Not Available | Not Available | Not Available | Not Available | Not Available | Not Available |

?

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|---------------------------------------|---------------------------------------|
| | No Data available for all ingredients | No Data available for all ingredients |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------|---------------------------------------|
| | No Data available for all ingredients |

Mobility in soil

| Ingredient | Mobility |
|------------|---------------------------------------|
| | No Data available for all ingredients |

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

| Product / Packaging disposal | |
|------------------------------|---|
| | <ul style="list-style-type: none"> ▶ Recycle wherever possible or consult manufacturer for recycling options. ▶ Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site. ▶ Recycle containers if possible, or dispose of in an authorised landfill. |

SECTION 14 TRANSPORT INFORMATION

Labels Required

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

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

| Source | Ingredient | Pollution Category |
|--------|-------------------------------------|--------------------|
| | Molybond Pumpable Guide Rope Grease | |

SECTION 15 REGULATORY INFORMATION

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

MINERAL OIL(NOT AVAILABLE) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards
International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

GRAPHITE(7782-42-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards
Australia Inventory of Chemical Substances (AICS)

| National Inventory | Status |
|-------------------------------|---------------------------|
| Australia - AICS | N (mineral oil) |
| Canada - DSL | N (mineral oil) |
| Canada - NDSL | N (graphite; mineral oil) |
| China - IECSC | N (mineral oil) |
| Europe - EINEC / ELINCS / NLP | N (mineral oil) |
| Japan - ENCS | N (graphite; mineral oil) |
| Korea - KECI | N (mineral oil) |
| New Zealand - NZIoC | N (mineral oil) |
| Philippines - PICCS | N (mineral oil) |
| USA - TSCA | N (mineral oil) |

Molybond Pumpable Guide Rope Grease**Legend:**

Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION**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.

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TEL (+61 3) 9572 4700.