

**ITW POLYMERS & FLUIDS** 

Chemwatch: 7623-31 Version No: 4.1.1.1 Safety Data Sheet according to WHS and ADG requirements

Issue Date: 27/06/2017 Print Date: 10/07/2018 Initial Date: Not Available S.GHS.AUS.EN

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

Product Identifier		
Product name	Devcon Stainless Steel Putty Resin	
Other means of identification	Not Available	
Relevant identified uses of th	e substance or mixture and uses advised against	
Relevant identified uses	Metal filled epoxy resin.	
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.itwpf.com.au	
Email	Not Available	
Emergency telephone numbe	r	
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 RE	ESPONSE	
Primary Number	Alternative Number 1	Alternative Number 2
1800 039 008	1800 039 008	+612 9186 1132

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#### **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	S5
Classification <sup>[1]</sup>	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
abel elements	

bel elements

Hazard pictogram(s)	
SIGNAL WORD	WARNING

#### Hazard statement(s)

.,	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
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#### Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P261	Avoid breathing mist/vapours/spray.

P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
Precautionary statement(s) Response	

	•
P362	Take off contaminated clothing and wash before reuse.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

#### Precautionary statement(s) Storage

Not Applicable

#### 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
25068-38-6	10-30	bisphenol A/ diglycidyl ether resin, liquid
		No other ingredient information provided.

#### SECTION 4 FIRST AID MEASURES

#### Description of first aid measures

General	
Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin contact occurs: <ul> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</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>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.</li> <li>Transport to hospital, or doctor.</li> </ul>
Ingestion	<ul> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.</li> </ul>

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

Treat symptomatically.

#### **SECTION 5 FIREFIGHTING MEASURES**

#### Extinguishing media

<ul> <li>Dry chemical powder.</li> <li>BCF (where regulations permit).</li> <li>Carbon dioxide.</li> </ul>	► Foam.
► Carbon dioxide.	<ul> <li>BCF (where regulations permit).</li> </ul>
	Carbon dioxide.

#### 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> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>	
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> </ul>	

<ul> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>Combustion products include:</li> </ul>
, carbon dioxide (CO2)
, aldehydes
, other pyrolysis products typical of burning organic material. May emit poisonous fumes.

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Wear impervious gloves and safety goggles.</li> <li>Trowel up/scrape up.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</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> <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> </ul>	
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> </ul>	
Conditions for safe storage, including any incompatibilities		
Suitable container	<ul> <li>Metal can or drum</li> <li>Packaging as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>	

## Storage incompatibility ► Avoid reaction with amines, mercaptans, strong acids and oxidising agents

#### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **Control parameters**

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

1	INGREDIENT DATA	

#### Not Available

#### EMERGENCY LIMITS

Ingredient	Material name		TEEL-1	TEEL-2	TEEL-3
bisphenol A/ diglycidyl ether resin, liquid	sin, Epoxy resin includes EPON 1001, 1007, 820, ERL-2795		90 mg/m3	990 mg/m3	5,900 mg/m3
Ingredient	Original IDLH	Revis	ed IDLH		
bisphenol A/ diglycidyl ether resin, liquid	Not Available	Not Av	vailable		

#### 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.
Personal protection	
Eye and face protection	<ul> <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.</li> </ul>

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#### **Devcon Stainless Steel Putty Resin**

Skin protection	See Hand protection below		
Hands/feet protection	<ul> <li>When handling liquid-grade epoxy resins wear chemically protective gloves , boots and aprons.</li> <li>The performance, based on breakthrough times ,of: <ul> <li>Ethyl Vinyl Alcohol (EVAL laminate) is generally excellent</li> <li>Butyl Rubber ranges from excellent to good</li> <li>Nitrile Butyl Rubber (NBR) from excellent to fair.</li> <li>Neoprene from excellent to fair</li> <li>Polyvinyl (PVC) from excellent to poor</li> </ul> </li> <li>As defined in ASTM F-739-96 <ul> <li>Excellent breakthrough time &gt; 480 min</li> <li>Good breakthrough time &gt; 20 min</li> <li>Fair breakthrough time &gt; 20 min</li> <li>Poor glove material degradation</li> </ul> </li> <li>Gloves should be tested against each resin system prior to making a selection of the most suitable type. Systems include both the resin and any hardener, individually and collectively)</li> <li>Do NOT use cotton or leather (which absorb and concentrate the resin), natural rubber (latex), medical or polyethylene gloves (which absorb the resin).</li> <li>Wear chemical protective gloves, e.g. PVC.</li> <li>Wear safety footwear or safety gumboots, e.g. Rubber</li> </ul> <li>NOTE: <ul> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.</li> <li>Contarninated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> </ul> </li>		
Body protection	See Other protection below		
Other protection	<ul> <li>Overalls.</li> <li>P.V.C. apron.</li> <li>Barrier cream.</li> </ul>		
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)

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Required minimum protection factor	Maximum gas/vapour concentration present in air p.p.m. (by volume)	Half-face Respirator	Full-Face Respirator
up to 10	1000	A-AUS / Class1 P2	-
up to 50	1000	-	A-AUS / Class 1 P2
up to 50	5000	Airline *	-
up to 100	5000	-	A-2 P2
up to 100	10000	-	A-3 P2
100+			Airline**

\* - 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)

#### **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

#### Information on basic physical and chemical properties

Appearance	Dark grey paste with a mild odour; does not mix with water.		
Physical state	Non Slump Paste	Relative density (Water = 1)	3.1
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	>200	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>200	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	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 Available
Vapour pressure (kPa)	Negligible	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	7 (5%)
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

#### SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
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	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.		
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.		
Skin Contact	Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition 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.		
Eye	The material may produce moderate eye irritation leading to inflammation. Re	peated or prolonged exposure to irritants may produce conjunctivitis.	
Chronic	There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Bisphenol A may have effects similar to female sex hormones and when administered to pregnant women, may damage the foetus. It may also damage male reproductive organs and sperm. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.		
Devcon Stainless Steel Putty Resin	ΤΟΧΙΟΙΤΥ	IRRITATION	
bisphenol A/ diglycidyl ether resin, liquid	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		
	The following information refers to contact allergens as a group and may no Contact allergies quickly manifest themselves as contact eczema, more rar involves a cell-mediated (T lymphocytes) immune reaction of the delayed ty mediated immune reactions. The chemical structure of hydroxylated diphenylalkanes or bisphenols cons class of endocrine disruptors that mimic oestrogens is widely used in indus Bisphenol A (BPA) and some related compounds exhibit oestrogenic activit	rely as urticaria or Quincke's oedema. The pathogenesis of contact eczema rpe. Other allergic skin reactions, e.g. contact urticaria, involve antibody- sists of two phenolic rings joined together through a bridging carbon. This stry, particularly in plastics	

differences in activity. Several derivatives of BPA exhibited significant thyroid hormonal activity towards rat pituitary cell line GH3, which releases growth hormone in a thyroid hormone-dependent manner. However, BPA and several other derivatives did not show such activity.

BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

Animal testing over 13 weeks showed bisphenol A diglycidyl ether (BADGE) caused mild to moderate, chronic, inflammation of the skin. Reproductive and Developmental Toxicity: Animal testing showed BADGE given over several months caused reduction in body weight but had no

reproductive effects. Cancer-causing potential: It has been concluded that bisphenol A diglycidyl ether cannot be classified with respect to its cancer-causing potential in humans.

Genetic toxicity: Laboratory tests on genetic toxicity of BADGE have so far been negative.

Foetoxicity has been observed in animal studies Oral (rabbit, female) NOEL 180 mg/kg (teratogenicity; NOEL (maternal 60 mg/kg

Acute Toxicity	$\otimes$	Carcinogenicity	$\otimes$
Skin Irritation/Corrosion	<ul><li>✓</li></ul>	Reproductivity	0
Serious Eye Damage/Irritation	>	STOT - Single Exposure	$\odot$
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	$\otimes$
Mutagenicity	$\otimes$	Aspiration Hazard	$\otimes$
		• • • •	Data available to make classification Data available but does not fill the criteria for classification

#### **SECTION 12 ECOLOGICAL INFORMATION**

O – Data Not Available to make classification

#### NOT AVAILABLE

Ingredient	Endpoint	Test Duration (hr)	Effect	Value	Species	BCF
Devcon Stainless Steel Putty Resin	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
bisphenol A/ diglycidyl ether resin, liquid	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment. **DO NOT** discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
bisphenol A/ diglycidyl ether resin, liquid	HIGH	HIGH
Bioaccumulative potential		
Ingredient	Bioaccumulation	
bisphenol A/ diglycidyl ether resin, liquid	LOW (LogKOW = 2.6835)	
Mobility in soil		
Ingredient	Mobility	
bisphenol A/ diglycidyl ether resin, liquid	LOW (KOC = 51.43)	

#### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product / Packaging disposal	<ul> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Management Authority for disposal.</li> <li>Bury residue in an authorised landfill.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> <li>Containers may still present a chemical hazard/ danger when empty.</li> <li>Return to supplier for reuse/recycling if possible.</li> <li>Otherwise:</li> <li>If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.</li> <li>Where possible retain label warnings and SDS and observe all notices pertaining to the product.</li> </ul>
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#### **SECTION 14 TRANSPORT INFORMATION**

#### Labels Required

Marine Pollutant	
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
	Devcon Stainless Steel Putty Resin	

#### **SECTION 15 REGULATORY INFORMATION**

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

BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID(25068-38-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (bisphenol A/ diglycidyl ether resin, liquid)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	N (bisphenol A/ diglycidyl ether resin, liquid)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
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

#### Ingredients with multiple cas numbers

Name	CAS No
bisphenol A/ diglycidyl ether resin, liquid	25068-38-6, 25085-99-8

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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## **TW** Polymers & Fluids

## **Devcon Stainless Steel Putty (ST) Hardener**

**ITW POLYMERS & FLUIDS** 

Issue Date: 11/01/2016 Print Date: 10/07/2018 Initial Date: Not Available S.GHS.AUS.EN

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

#### **Product Identifier** Product name Devcon Stainless Steel Putty (ST) Hardener AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (contains triethylenetetramine) Proper shipping name Other means of identification Not Available Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses Hardener component of two part epoxy system. Details of the supplier of the safety data sheet **ITW POLYMERS & FLUIDS** Registered company name Address 100 Hassall Street, Wetherill Park Not Available 2164 NSW Australia +61 2 9757 8800 Telephone Fax +61 2 9757 3855 Website www.itwpf.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

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#### SECTION 2 HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

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

	· · · · · · · · · · · · · · · · · · ·	
Poisons Schedule	S5	
Classification <sup>[1]</sup>	Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category 1, Skin Sensitizer Category 1	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	
Label elements		
Hazard pictogram(s)		
SIGNAL WORD	DANGER	
Hazard statement(s)		
H290	May be corrosive to metals.	
H314	Causes severe skin burns and eye damage.	
H317	May cause an allergic skin reaction.	
Precautionary statement(s) Pr	revention	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	

P234	Keep only in original container.
P272	Contaminated work clothing should not be allowed out of the workplace.

#### Precautionary statement(s) Response

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P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

#### Precautionary statement(s) Storage

P405	Store locked up.
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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
68410-23-1	40-50	C18 fatty acid dimers/ polyethylenepolyamine polyamides
112-24-3	40-50	triethylenetetramine
112945-52-5	1-10	silica amorphous, fumed, crystalline free
13463-67-7	0.1-1	titanium dioxide

#### **SECTION 4 FIRST AID MEASURES**

#### Description of first aid measures

General	
Eye Contact	If this product comes in contact with the eyes: <ul> <li>Immediately hold eyelids apart and flush the eye continuously with 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>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</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	<ul> <li>If skin or hair contact occurs:</li> <li>Immediately flush body and clothes with large amounts of water, using safety shower if available.</li> <li>Quickly remove all contaminated clothing, including footwear.</li> <li>Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.</li> <li>Transport to hospital, or doctor.</li> </ul>
Inhalation	<ul> <li>If fumes or combustion products are inhaled remove from contaminated area.</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>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.</li> <li>Transport to hospital, or doctor.</li> </ul>
Ingestion <ul> <li>For advice, contact a Poisons Information Centre or a doctor at once.</li> <li>Urgent hospital treatment is likely to be needed.</li> <li>If swallowed do NOT induce vomiting.</li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Transport to hospital or doctor without delay.</li> </ul>	

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

#### Treat symptomatically.

For acute or short-term repeated exposures to highly alkaline materials:

- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

#### INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

Neutralising agents should never be given since exothermic heat reaction may compound injury.

\* Catharsis and emesis are absolutely contra-indicated.

\* Activated charcoal does not absorb alkali.

Respiratory stress is uncommon but present occasionally because of soft tissue edema.

\* Gastric lavage should not be used.

Supportive care involves the following: • Withhold oral feedings initially.

- ▶ If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

#### SECTION 5 FIREFIGHTING MEASURES

#### Extinguishing media

▶ Foam.
<ul> <li>Dry chemical powder.</li> </ul>
<ul> <li>BCF (where regulations permit).</li> </ul>
<ul> <li>Carbon dioxide.</li> </ul>

#### 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

Advice for firefighters	
Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> <li>Use fire fighting procedures suitable for surrounding area.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Combustible.</li> <li>Slight fire hazard when exposed to heat or flame.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>On combustion, may emit toxic fumes of carbon monoxide (CO).</li> <li>Combustion products include:         <ul> <li>,</li> <li>carbon dioxide (CO2)</li> <li>,</li> <li>nitrogen oxides (NOx)</li> <li>silicon dioxide (SiO2)</li> <li>,</li> <li>other pyrolysis products typical of burning organic material.</li> <li>May emit corrosive fumes.</li> </ul> </li> </ul>

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

Minor Spills	<ul> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes.</li> <li>Control personal contact with the substance, by using protective equipment.</li> <li>Contain and absorb spill with sand, earth, inert material or vermiculite.</li> <li>Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.</li> <li>Check regularly for spills and leaks.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</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> <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>Avoid contact with moisture.</li> </ul>
Other information	<ul> <li>Store in original containers.</li> <li>Keep containers securely sealed.</li> <li>Store in a cool, dry, well-ventilated area.</li> <li>Store away from incompatible materials and foodstuff containers.</li> <li>DO NOT store near acids, or oxidising agents</li> <li>No smoking, naked lights, heat or ignition sources.</li> </ul>

Suitable container	<ul> <li>DO NOT use aluminium, galvanised or tin-plated containers</li> <li>For low viscosity materials</li> <li>Drums and jerricans must be of the non-removable head type.</li> <li>Where a can is to be used as an inner package, the can must have a screwed enclosure.</li> <li>For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.):</li> </ul>

	<ul> <li>Removable head packaging;</li> <li>Cans with friction closures and</li> <li>low pressure tubes and cartridges may be used.</li> </ul>	
Storage incompatibility	<ul> <li>Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.</li> <li>Avoid contact with copper, aluminium and their alloys.</li> <li>Avoid reaction with oxidising agents</li> </ul>	

#### 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	titanium dioxide	Titanium dioxide	10 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS					
Ingredient	Material name		TEEL-1	TEEL-2	TEEL-3
C18 fatty acid dimers/ polyethylenepolyamine polyamides	C-18 Unsaturated fatty acid, dimers, reaction products with polyethylenepolyamines; (Versamid 140 polyamide resin; Versamid 125)		30 mg/m3	330 mg/m3	2,000 mg/m3
triethylenetetramine	Triethylenetetramine		3 ppm	14 ppm	83 ppm
silica amorphous, fumed, crystalline free	Silica, amorphous furned		18 mg/m3	100 mg/m3	630 mg/m3
titanium dioxide	Titanium oxide; (Titanium dioxide)		30 mg/m3	330 mg/m3	2,000 mg/m3
Ingredient	Original IDLH	Revised IDLH			
C18 fatty acid dimers/ polyethylenepolyamine polyamides	Not Available	Not Available			
triethylenetetramine	Not Available Not Available				
silica amorphous, fumed, crystalline free	3000 mg/m3 Not Available				
titanium dioxide	5000 mg/m3	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. Refer also to protective measures for the other component used with the product. Read both SDS before using; store and attach SDS together.	
Personal protection		
Eye and face protection	<ul> <li>Chemical goggles.</li> <li>Full face shield may be required for supplementary but never for primary protection of eyes.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the w of lenses or restrictions on use, should be created for each workplace or task.</li> </ul>	
Skin protection	See Hand protection below	
Hands/feet protection	<ul> <li>NOTE:</li> <li>The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment avoid all possible skin contact.</li> <li>Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.</li> <li>Leather wear not recommended: Contaminated leather footwear, watch bands, should be destroyed, i.e. burnt, as they cannot be adequately decontaminated</li> </ul>	
Body protection	See Other protection below	
Other protection	Overalls.     PVC Apron.     PVC protective suit may be required if exposure severe.     Eyewash unit.	
Thermal hazards	Not Available	

#### 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:

#### **Respiratory protection**

Type AK-P 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

Devcon Stainless Steel Putty (ST) Hardener

Material	СРІ
BUTYL	С
NEOPRENE	С
NITRILE	С
PE/EVAL/PE	С
VITON	С

\* 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.

#### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	AK-AUS P2	-	AK-PAPR-AUS / Class 1 P2
up to 50 x ES	-	AK-AUS / Class 1 P2	-
up to 100 x ES	-	AK-2 P2	AK-PAPR-2 P2 ^

#### ^ - 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)

Appearance	White paste with mild ammonia like odour; partially mixes with water.				
Physical state	Non Slump Paste	Relative density (Water = 1)	1.02		
Odour	Not Available	Partition coefficient n-octanol / water	Not Available		
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available		
pH (as supplied)	Not Available	Decomposition temperature	Not Available		
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available		
Initial boiling point and boiling range (°C)	>232.2	Molecular weight (g/mol)	Not Applicable		
Flash point (°C)	>93.3 (TCC)	Taste	Not Available		
Evaporation rate	<1 BuAC = 1	Explosive properties	Not Available		
Flammability	Not Applicable	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 Available		
Vapour pressure (kPa)	< 0.01 @ 20C	Gas group	Not Available		
Solubility in water (g/L)	Partly miscible	pH as a solution (1%)	10-11 (5% slurry)		
Vapour density (Air = 1)	>1	VOC g/L	Not Available		

#### SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul> <li>Unstable in the presence of incompatible materials.</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	Inhalation of epoxy resin amine hardeners (including polyamines and amine adducts) may produce bronchospasm and coughing episodes lasting several days after cessation of the exposure. Even faint traces of these vapours may trigger an intense reaction in individuals showing "amine asthma". Inhalation hazard is increased at higher temperatures.
Ingestion	The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Ingestion of amine epoxy-curing agents (hardeners) may cause severe abdominal pain, nausea, vomiting or diarrhoea. The vomitus may contain blood and mucous.
Skin Contact	The material can produce chemical burns following direct contact with the skin. Amine epoxy-curing agents (hardeners) may produce primary skin irritation and sensitisation dermatitis in predisposed individuals. Cutaneous reactions include erythema, intolerable itching and severe facial swelling. Open cuts, abraded or irritated skin should not be exposed to this material 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.			
Eye	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.				
Chronic	If applied to the eyes, this material causes severe eye damage.         Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.         Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.         Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.				
Devcon Stainless Steel Putty (ST) Hardener	TOXICITY IRRITATION				
C18 fatty acid dimers/ polyethylenepolyamine polyamides	TOXICITY IRRITATION				
triethylenetetramine	ΤΟΧΙϹΙΤΥ	IRRITATION			
silica amorphous, fumed, crystalline free	ТОХІСІТҮ	IRRITATION			
titanium dioxide	ΤΟΧΙΟΙΤΥ	IRRITATION			
Legend:	Value obtained from Europe ECHA Registered Substan     data extracted from RTECS - Register of Toxic Effect of c		from manufacturer's SDS. Unless otherwise specified		
C18 FATTY ACID DIMERS/ POLYETHYLENEPOLYAMINE POLYAMIDES	No significant acute toxicological data identified in litera	ature search.			
TRIETHYLENETETRAMINE	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody- mediated immune reactions. Ethyleneamines are very reactive and can cause chemical burns, skin rashes and asthma-like symptoms. It is readily absorbed through the skin and may cause eye blindness and irreparable damage. As such, they require careful handling. In general, the low-molecular weight polyamines have been positive in the Ames assay (for genetic damage); however, this is probably due to their ability to chelate copper. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe 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. Repeated exposures may produce severe ulceration. For alkyl polyamines: The alkyl polyamines cluster consists of two terminal primary and at least one secondary amine groups and are derivatives of low molecular weight ethylenediamine, propylenediamine or hexanediamine. Toxicity depends on route of exposure. Cluster members have been shown to cause skin irritation or sensitisation, eye irritation and genetic defects, but have not been shown to cause cancer. Triethylenettramine is a severe irritant to skin and eyes and may induce exkin sensitisation. Acute exposure to saturated vapour via inhalation was tolerated without impairment but exposure to aerosol may lead to reversible irritations of the mucous membranes in the ainways. Studies done on experimental animals showed that it does not cause cancer or foetal developmental defects. E				
SILICA AMORPHOUS, FUMED, CRYSTALLINE FREE	For silica amorphous: When experimental animals inhale synthetic amorphous silica (SAS) dust, it dissolves in the lung fluid and is rapidly eliminated. If swallowed, the vast majority of SAS is excreted in the faeces and there is little accumulation in the body. Following absorption across the gut, SAS is eliminated via urine without modification in animals and humans. SAS is not expected to be broken down (metabolised) in mammals.				
TITANIUM DIOXIDE	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. Exposure to titanium dioxide is via inhalation, swallowing or skin contact. When inhaled, it may deposit in lung tissue and lymph nodes causing dysfunction of the lungs and immune system. Absorption by the stomach and intestines depends on the size of the particle. It penetrated only the outermost layer of the skin, suggesting that healthy skin may be an effective barrier. WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.				
C18 FATTY ACID DIMERS/ POLYETHYLENEPOLYAMINE POLYAMIDES & TITANIUM DIOXIDE	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.				
	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.				
C18 FATTY ACID DIMERS/ POLYETHYLENEPOLYAMINE POLYAMIDES & TRIETHYLENETETRAMINE	function tests, moderate to severe bronchial hyperreaction	ne irritant. Other criteria for diagnosis of	RADS include a reversible airflow pattern on lung		
POLYETHYLENEPOLYAMINE POLYAMIDES & TRIETHYLENETETRAMINE	function tests, moderate to severe bronchial hyperreacti without eosinophilia.	e irritant. Other criteria for diagnosis of vity on methacholine challenge testing,	RADS include a reversible airflow pattern on lung and the lack of minimal lymphocytic inflammation,		
POLYETHYLENEPOLYAMINE POLYAMIDES &	function tests, moderate to severe bronchial hyperreaction	ne irritant. Other criteria for diagnosis of	RADS include a reversible airflow pattern on lung and the lack of minimal lymphocytic inflammation,		
POLYETHYLENEPOLYAMINE POLYAMIDES & TRIETHYLENETETRAMINE Acute Toxicity	function tests, moderate to severe bronchial hyperreactivithout eosinophilia.	e irritant. Other criteria for diagnosis of vity on methacholine challenge testing, Carcinogenicity	RADS include a reversible airflow pattern on lung and the lack of minimal lymphocytic inflammation,		
POLYETHYLENEPOLYAMINE POLYAMIDES & TRIETHYLENETETRAMINE Acute Toxicity Skin Irritation/Corrosion	function tests, moderate to severe bronchial hyperreactivithout eosinophilia.	e irritant. Other criteria for diagnosis of vity on methacholine challenge testing, Carcinogenicity Reproductivity	RADS include a reversible airflow pattern on lung and the lack of minimal lymphocytic inflammation,		

Mutagenicity

Aspiration Hazard

Legend:

Data available to make classification
 Data available but does not fill the criteria for classification

S – Data Not Available to make classification

#### SECTION 12 ECOLOGICAL INFORMATION

#### Toxicity

NOT AVAILABLE

Ingredient	Endpoint	Test Duration (hr)	Effect	Value	Species	BCF
Devcon Stainless Steel Putty (ST) Hardener	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
C18 fatty acid dimers/ polyethylenepolyamine polyamides	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
triethylenetetramine	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
silica amorphous, fumed, crystalline free	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
titanium dioxide	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

Prevent, by any means available, spillage from entering drains or water courses. DO NOT discharge into sewer or waterways.

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air		
triethylenetetramine	LOW	LOW		
titanium dioxide	HIGH	HIGH		
Bioaccumulative potential				

Ingredient	Bioaccumulation
triethylenetetramine	LOW (LogKOW = -2.6464)
titanium dioxide	LOW (BCF = 10)

#### Mobility in soil Mobility Ingredient triethylenetetramine LOW (KOC = 309.9)

## titanium dioxide LOW (KOC = 23.74)

#### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Product / Packaging disposal	<ul> <li>DO NOT 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 sever 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>Recycle wherever possible.</li> <li>Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal</li> </ul>
	<ul> <li>facility can be identified.</li> <li>Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurrying in water; Neutralisation followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)</li> <li>Decontaminate empty containers.</li> </ul>

#### SECTION 14 TRANSPORT INFORMATION

Environmental hazard

No relevant data

Labels Required	
	B B
Marine Pollutant	NO
HAZCHEM	2X
Land transport (ADG): NOT R	EGULATED FOR TRANSPORT OF DANGEROUS GOODS
UN number	2735
Packing group	Ш
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (contains triethylenetetramine)

#### Issue Date: 11/01/2016 Print Date: 10/07/2018

#### Devcon Stainless Steel Putty (ST) Hardener

Transport hazard class(es)	Class     8       Subrisk     Not Applicable
Special precautions for user	Special provisions     223 274       Limited quantity     5 L

#### Air transport (ICAO-IATA / DGR)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN number	2735			
Packing group	II			
UN proper shipping name	Amines, liquid, corrosive	Amines, liquid, corrosive, n.o.s. * (contains triethylenetetramine); Polyamines, liquid, corrosive, n.o.s. * (contains triethylenetetramine)		
Environmental hazard	No relevant data			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	8 Not Applicable 8L		
	Special provisions Cargo Only Packing In Cargo Only Maximum		A3 A803 856 60 L	
Special precautions for user	Passenger and Cargo Packing Instructions		852	
	Passenger and Cargo Maximum Qty / Pack		5 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y841	
	Passenger and Cargo Limited Maximum Qty / Pack		1L	

#### Sea transport (IMDG-Code / GGVSee)

: NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN number	2735	
Packing group	III	
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (contains triethylenetetramine)	
Environmental hazard	Not Applicable	
Transport hazard class(es)	IMDG Class     8       IMDG Subrisk     Not Applicable	
Special precautions for user	EMS NumberF-A , S-BSpecial provisions223 274Limited Quantities5 L	

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

Source	Ingredient	Pollution Category
	Devcon Stainless Steel Putty (ST) Hardener	

#### **SECTION 15 REGULATORY INFORMATION**

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

C18 FATTY ACID DIMERS/ POLYETHYLENEPOLYAMINE POLYAMIDES(68410-23-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

#### TRIETHYLENETETRAMINE(112-24-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

SILICA AMORPHOUS, FUMED, CRYSTALLINE FREE(112945-52-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

#### TITANIUM DIOXIDE(13463-67-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards

Australia Inventory of Chemical Substances (AICS)

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

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (silica amorphous, furned, crystalline free; C18 fatty acid dimers/ polyethylenepolyamine polyamides; triethylenetetramine)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	N (silica amorphous, furned, crystalline free; C18 fatty acid dimers/ polyethylenepolyamine polyamides)
Japan - ENCS	N (silica amorphous, fumed, crystalline free)
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	N (silica amorphous, fumed, crystalline free)
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

#### Ingredients with multiple cas numbers

Name	CAS No
silica amorphous, fumed, crystalline free	112945-52-5, 67256-35-3
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chernwatch 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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