Bastion Bond Breaker Joint Sealant 300ml

RLA Polymers Pty Ltd

Version No: **4.1**
Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Issue Date: **13/04/2022**
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S.GHS.AUS.EN

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

Product Identifier

Product name	Bastion Bond Breaker Joint Sealant 300ml
Chemical Name	Not Applicable
Synonyms	Not Available
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	Sealant.

Details of the supplier of the safety data sheet

Registered company name	**RLA Polymers Pty Ltd**
Address	215 Colchester Road Kilsyth VIC 3137 Australia
Telephone	+61 3 9728 1644, 1800 242 931
Fax	+61 3 9728 6009
Website	www.rlapolymers.com.au
Email	sales@rlapolymers.com.au

Emergency telephone number

Association / Organisation	**RLA Polymers Pty Ltd**	**CHEMWATCH EMERGENCY RESPONSE**
Emergency telephone numbers	**+61 3 9728 1644**	**+61 1800 951 288**
Other emergency telephone numbers	**1800 242 931**	**+61 2 9186 1132**

Once connected and if the message is not in your prefered 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]	Sensitisation (Skin) Category 1, Carcinogenicity Category 2
Legend:	*1. Classification by vendor; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI*

Label elements

Hazard pictogram(s)	
Signal word	**Warning**

Hazard statement(s)

H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

Precautionary statement(s) Prevention

Page 1 continued...

P201	Obtain special instructions before use.
P280	Wear protective gloves and protective clothing.
P261	Avoid breathing mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Precautionary statement(s) Storage

P405	Store locked up.

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
22984-54-9	1-<10	methyltri(methylethylketoxime)silane
96-29-7	<2	methyl ethyl ketoxime
1760-24-3	0.1-<1	N-[3-(trimethoxysilyl)propyl]ethylenediamine
34206-40-1	0.1-<1	tetrakis(methylethylketoximino)silane
60207-90-1	<0.3	propiconazole
Not Available		hydrolysis may yield decomposition products as
67-56-1		methanol
Legend:	*1. Classification by vendor; 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 this product comes in contact with the eyes: ▸ 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	If skin contact occurs: ▸ 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.
Inhalation	▸ If fumes, aerosols or combustion products are inhaled remove from contaminated area. ▸ Other measures are usually unnecessary.
Ingestion	▸ Immediately give a glass of water. ▸ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor. ▸ If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus. ▸ 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

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

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of this potential adverse effect should precede administration of epinephrine or other cardiac stimulants and the selection of bronchodilators.
BP America Product Safety & Toxicology Department
- 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.
Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- 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	‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ Wear breathing apparatus plus protective gloves in the event of a fire. ‣ Prevent, by any means available, spillage from entering drains or water courses. ‣ Use fire fighting procedures suitable for surrounding area.
Fire/Explosion Hazard	‣ The material is not readily combustible under normal conditions. ‣ However, it will break down under fire conditions and the organic component may burn. ‣ Not considered to be a significant fire risk. ‣ Heat may cause expansion or decomposition with violent rupture of containers. Other decomposition products include: carbon monoxide (CO) carbon dioxide (CO2) nitrogen oxides (NOx) silicon dioxide (SiO2) other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.
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	‣ Clean up all spills immediately. ‣ Avoid contact with skin and eyes. ‣ Wear impervious gloves and safety goggles. ‣ Trowel up/scrape up.
Major Spills	‣ Clear area of personnel and move upwind. ‣ Alert Fire Brigade and tell them location and nature of hazard. ‣ Wear full body protective clothing with breathing apparatus. ‣ Prevent, by all means available, spillage from entering drains or water courses.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	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. ‣ Containers, even those that have been emptied, may contain explosive vapours. ‣ Do NOT cut, drill, grind, weld or perform similar operations on or near containers. ‣ Electrostatic discharge may be generated during pumping - this may result in fire. ‣ Ensure electrical continuity by bonding and grounding (earthing) all equipment. ‣ Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<=1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). ‣ Avoid splash filling. ‣ 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.

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Other information	▸ 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	▸ Polyethylene or polypropylene container. ▸ Packing as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks. ▸ Metal can or drum ▸ Packaging as recommended by manufacturer. ▸ Check all containers are clearly labelled and free from leaks.
Storage incompatibility	▸ Avoid strong acids, bases. ▸ Avoid reaction with oxidising agents ▸ Keep dry

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	methanol	Methyl alcohol	200 ppm / 262 mg/m3	328 mg/m3 / 250 ppm	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
methyl ethyl ketoxime	30 ppm	56 ppm	250 ppm
N-[3-(trimethoxysilyl)propyl]ethylenediamine	23 mg/m3	250 mg/m3	1,500 mg/m3
methanol	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
methyltri(methylethylketoxime)silane	Not Available	Not Available
methyl ethyl ketoxime	Not Available	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available	Not Available
tetrakis(methylethylketoximino)silane	Not Available	Not Available
propiconazole	Not Available	Not Available
methanol	6,000 ppm	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
methyltri(methylethylketoxime)silane	D	> 0.1 to ≤ 1 ppm
methyl ethyl ketoxime	D	> 0.1 to ≤ 1 ppm
N-[3-(trimethoxysilyl)propyl]ethylenediamine	D	> 0.1 to ≤ 1 ppm
tetrakis(methylethylketoximino)silane	D	> 0.1 to ≤ 1 ppm
propiconazole	E	≤ 0.1 ppm
Notes:	*Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.*	

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	▸ Safety glasses with side shields. ▸ 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.
Skin protection	See Hand protection below
Hands/feet protection	▸ Wear chemical protective gloves, e.g. PVC. ▸ Wear safety footwear or safety gumboots, e.g. Rubber **NOTE:** ▸ 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.

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	▸ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed.
Body protection	See Other protection below
Other protection	▸ Overalls. ▸ P.V.C apron. ▸ Barrier cream. ▸ Skin cleansing cream.

Respiratory protection

Type AX-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 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 P2	-	AX-PAPR-AUS / Class 1 P2
up to 25 x ES	Air-line*	AX-2 P2	AX-PAPR-2 P2
up to 50 x ES	-	AX-3 P2	-
50+ x ES	-	Air-line**	-

* - Continuous-flow; ** - Continuous-flow or positive pressure demand
^ - 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)

- 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	White paste with organic odour; reacts with water.

Physical state	Free-flowing Paste	**Relative density (Water = 1)**	1.01 @23C
Odour	Not Available	**Partition coefficient n-octanol / water**	Not Available
Odour threshold	Not Available	**Auto-ignition temperature (°C)**	Not Applicable
pH (as supplied)	Not Applicable	**Decomposition temperature**	Not Available
Melting point / freezing point (°C)	Not Available	**Viscosity (cSt)**	150000-250000 mPa.s @25C
Initial boiling point and boiling range (°C)	Not Available	**Molecular weight (g/mol)**	Not Applicable
Flash point (°C)	Not Applicable	**Taste**	Not Available
Evaporation rate	Not Available	**Explosive properties**	Not Available
Flammability	Not Applicable	**Oxidising properties**	Not Available
Upper Explosive Limit (%)	Not Applicable	**Surface Tension (dyn/cm or mN/m)**	Not Available
Lower Explosive Limit (%)	Not Applicable	**Volatile Component (%vol)**	Not Available
Vapour pressure (kPa)	Not Available	**Gas group**	Not Available
Solubility in water	Reacts	**pH as a solution (Not Available%)**	Not Available
Vapour density (Air = 1)	Not Available	**VOC g/L**	Not Available

SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	▸ 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
Hazardous decomposition products	See section 5

SECTION 11 Toxicological information

Information on toxicological effects

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Inhaled	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. 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. Inhaling high concentrations of mixed hydrocarbons can cause narcosis, with nausea, vomiting and lightheadedness. Low molecular weight (C2-C12) hydrocarbons can irritate mucous membranes and cause incoordination, giddiness, nausea, vertigo, confusion, headache, appetite loss, drowsiness, tremors and stupor. 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. The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	Ingestion may result in nausea, abdominal irritation, pain and vomiting Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions. Accidental ingestion of the material may be damaging to the health of the individual.
Skin Contact	Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. The material may accentuate any pre-existing dermatitis condition 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	There is some evidence to suggest that this material can cause eye irritation and damage in some persons.
Chronic	Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. 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. 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. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population.

Bastion Bond Breaker Joint Sealant 300ml	**TOXICITY**	**IRRITATION**
	Dermal (Rat) LD50: >2009 mg/kg*[2]	Eye (rabbit)- not irritate
	Oral (Rat) LD50: >2009 mg/kg*[2]	Skin (rabbit)- not irritate
methyltri(methylethylketoxime)silane	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Eye: adverse effect observed (irritating)[1]
	Oral (Rat) LD50; 2453 mg/kg[1]	Skin: no adverse effect observed (not irritating)[1]
methyl ethyl ketoxime	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >184<1840 mg/kg[1]	Eye (rabbit): 0.1 ml - SEVERE
	Inhalation(Rat) LC50; >4.83 mg/l4h[1]	
	Oral (Rat) LD50; >900 mg/kg[1]	
N-[3-(trimethoxysilyl)propyl]ethylenediamine	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: >2000 mg/kg[1]	Eye (rabbit): 15 mg SEVERE
	Inhalation(Rat) LC50; >1.49<2.44 mg/l4h[1]	Eye: adverse effect observed (irreversible damage)[1]
	Oral (Rat) LD50; 1897 mg/kg[1]	Skin (rabbit): 500 mg mild
		Skin: no adverse effect observed (not irritating)[1]
tetrakis(methylethylketoximino)silane	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >2000 mg/kg[1]	Not Available
	Oral (Rat) LD50; 2453 mg/kg[1]	
propiconazole	**TOXICITY**	**IRRITATION**
	dermal (rat) LD50: >4000 mg/kg[2]	Eye (non-irritating) *
	Inhalation(Rat) LC50; >5.8 mg/L4h[2]	Skin (non-irritating) *
	Oral (Rat) LD50; 1517 mg/kg[2]	
methanol	**TOXICITY**	**IRRITATION**
	Dermal (rabbit) LD50: 15800 mg/kg[2]	Eye (rabbit): 100 mg/24h-moderate
	Inhalation(Rat) LC50; 64000 ppm4h[2]	Eye (rabbit): 40 mg-moderate
	Oral (Rat) LD50; 5628 mg/kg[2]	Eye: no adverse effect observed (not irritating)[1]

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		Skin (rabbit): 20 mg/24 h-moderate
		Skin: no adverse effect observed (not irritating)[1]

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*

METHYL ETHYL KETOXIME	Mammalian lymphocyte mutagen *Huls Canada ** Merck For methyl ethyl ketoxime (MEKO): At medium to high concentrations, MEKO increased the rate of liver tumours in animal testing. This seems to be due to the breakdown of MEKO into a cancer-causing substance, and occurred more often in males. MEKO does not seem to cause mutations. Repeated exposure appeared to cause effects on the nose, spleen, liver, kidney and blood.
N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE	Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Allergy causing activity is due to interactions with proteins. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. For N-[3-(trimethoxysilyl)propyl]-ethylenediamine (AEAPTMS) and its analogues: Animal testing shows that AEAPTMS is moderately irritating to (and can sensitise) the skin and severely irritating to the eyes. It also causes salivation and laboured breathing. There is no evidence that AEAPTMS causes genetic damage or reproductive or developmental toxicity to date. The material may produce severe irritation to the eye causing pronounced 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.
TETRAKIS(METHYLETHYLKETOXIMINO)SILANE	No significant acute toxicological data identified in literature search. Low molecular weight alkoxysilane can cause irreversible lung damage when inhaled at low dose. It is not an obvious skin irritant. However, studies suggest with repeated occupational exposure, methoxysilane may cause damage to the eye and skin as well as cancer.
PROPICONAZOLE	No sensitisation in guinea pigs * ADI 0.04 mg/kg b.w. * Toxicity Class WHO III NOEL for dogs 50 ppm (1.9 mg/kg b.w. daily) * ***[* The Pesticides Manual, Incorporating The Agrochemicals Handbook, 10th Edition, Editor Clive Tomlin, 1994, British Crop Protection Council]***
METHYLTRI(METHYLETHYLKETOXIME)SILANE & METHYL ETHYL KETOXIME & N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE & TETRAKIS(METHYLETHYLKETOXIMINO)SILANE & PROPICONAZOLE	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.
METHYLTRI(METHYLETHYLKETOXIME)SILANE & TETRAKIS(METHYLETHYLKETOXIMINO)SILANE	alpha,beta-Unsaturated oximes represent two previously unknown classes of prohaptens.Three putative metabolites were proposed as sensitising agents. These included two diastereometric alpha,beta-epoxy oximes and a nitro analogue. When tested in the LLNA,alpha,beta-epoxy oximes. Allergic Contact Dermatitis—Formation, Structural Requirements,and Reactivity of Skin Sensitizers. Ann-Therese Karlberg et al: Chem. Res.
METHYLTRI(METHYLETHYLKETOXIME)SILANE & N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE & METHANOL	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.

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

SECTION 12 Ecological information

Toxicity

Bastion Bond Breaker Joint Sealant 300ml

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

methyltri(methylethylketoxime)silane

Endpoint	Test Duration (hr)	Species	Value	Source
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	6.1mg/l	2

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	EC50	48h	Crustacea	201mg/l	2
	NOEC(ECx)	72h	Algae or other aquatic plants	1mg/l	2

methyl ethyl ketoxime				
Endpoint	**Test Duration (hr)**	**Species**	**Value**	**Source**
BCF	1008h	Fish	0.5-0.6	7
NOEC(ECx)	72h	Algae or other aquatic plants	~1.02mg/l	2
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	~6.09mg/l	2
EC50	48h	Crustacea	~201mg/l	2

N-[3-(trimethoxysilyl)propyl]ethylenediamine				
Endpoint	**Test Duration (hr)**	**Species**	**Value**	**Source**
NOEC(ECx)	72h	Algae or other aquatic plants	1.6mg/l	2
EC50	72h	Algae or other aquatic plants	5.5mg/l	2
LC50	96h	Fish	597mg/l	2
EC50	48h	Crustacea	81mg/l	2
EC50	96h	Algae or other aquatic plants	11mg/l	2

tetrakis(methylethylketoximino)silane				
Endpoint	**Test Duration (hr)**	**Species**	**Value**	**Source**
LC50	96h	Fish	>100mg/l	2
EC50	72h	Algae or other aquatic plants	6.1mg/l	2
EC50	48h	Crustacea	201mg/l	2
NOEC(ECx)	72h	Algae or other aquatic plants	1mg/l	2

propiconazole				
Endpoint	**Test Duration (hr)**	**Species**	**Value**	**Source**
EC50(ECx)	264h	Algae or other aquatic plants	0.018-0.039mg/L	4
LC50	96h	Fish	0.71-1.12mg/l	4
EC50	72h	Algae or other aquatic plants	0.63-1.84mg/l	4
EC50	48h	Crustacea	3.354-4.902mg/L	4
EC50	96h	Algae or other aquatic plants	1.29mg/l	4

methanol				
Endpoint	**Test Duration (hr)**	**Species**	**Value**	**Source**
NOEC(ECx)	720h	Fish	0.007mg/L	4
LC50	96h	Fish	290mg/l	2
EC50	48h	Crustacea	>10000mg/l	2
EC50	96h	Algae or other aquatic plants	14.11-20.623mg/l	4

Legend: *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*

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
methyltri(methylethylketoxime)silane	HIGH	HIGH
methyl ethyl ketoxime	LOW	LOW
N-[3-(trimethoxysilyl)propyl]ethylenediamine	HIGH	HIGH
methanol	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
methyltri(methylethylketoxime)silane	LOW (LogKOW = 7.8316)
methyl ethyl ketoxime	LOW (BCF = 5.8)
N-[3-(trimethoxysilyl)propyl]ethylenediamine	LOW (LogKOW = -1.6744)
methanol	LOW (BCF = 10)

Mobility in soil

Ingredient	Mobility
methyltri(methylethylketoxime)silane	LOW (KOC = 590900)
methyl ethyl ketoxime	LOW (KOC = 130.8)
N-[3-(trimethoxysilyl)propyl]ethylenediamine	LOW (KOC = 6856)
methanol	HIGH (KOC = 1)

Continued...

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging disposal	▸ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ▸ It may be necessary to collect all wash water for treatment before disposal. ▸ In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. ▸ Where in doubt contact the responsible authority. ▸ 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

Not Applicable

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

Product name	Group
methyltri(methylethylketoxime)silane	Not Available
methyl ethyl ketoxime	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available
tetrakis(methylethylketoximino)silane	Not Available
propiconazole	Not Available
methanol	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
methyltri(methylethylketoxime)silane	Not Available
methyl ethyl ketoxime	Not Available
N-[3-(trimethoxysilyl)propyl]ethylenediamine	Not Available
tetrakis(methylethylketoximino)silane	Not Available
propiconazole	Not Available
methanol	Not Available

SECTION 15 Regulatory information

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

methyltri(methylethylketoxime)silane is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

methyl ethyl ketoxime 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 6
Australian Inventory of Industrial Chemicals (AIIC)
Chemical Footprint Project - Chemicals of High Concern List

N-[3-(trimethoxysilyl)propyl]ethylenediamine is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

tetrakis(methylethylketoximino)silane is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

propiconazole 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)

methanol 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)
Chemical Footprint Project - Chemicals of High Concern List

National Inventory Status

Continued...

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	Yes
Canada - DSL	No (propiconazole)
Canada - NDSL	No (methyltri(methylethylketoxime)silane; methyl ethyl ketoxime; N-[3-(trimethoxysilyl)propyl]ethylenediamine; tetrakis(methylethylketoximino)silane; propiconazole; methanol)
China - IECSC	Yes
Europe - EINEC / ELINCS / NLP	Yes
Japan - ENCS	No (tetrakis(methylethylketoximino)silane)
Korea - KECI	Yes
New Zealand - NZIoC	Yes
Philippines - PICCS	Yes
USA - TSCA	No (propiconazole)
Taiwan - TCSI	Yes
Mexico - INSQ	No (methyltri(methylethylketoxime)silane; N-[3-(trimethoxysilyl)propyl]ethylenediamine; tetrakis(methylethylketoximino)silane)
Vietnam - NCI	Yes
Russia - FBEPH	No (tetrakis(methylethylketoximino)silane; propiconazole)
Legend:	*Yes = All CAS declared ingredients are on the inventory* *No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.*

SECTION 16 Other information

Revision Date	13/04/2022
Initial Date	07/03/2022

SDS Version Summary

Version	Date of Update	Sections Updated
3.1	08/03/2022	Acute Health (swallowed), Advice to Doctor, Chronic Health, Classification, Ingredients, Physical Properties
4.1	13/04/2022	Acute Health (eye), Acute Health (inhaled), Acute Health (swallowed), Advice to Doctor, Appearance, Chronic Health, Classification, Fire Fighter (extinguishing media), Fire Fighter (fire/explosion hazard), First Aid (swallowed), Ingredients, Instability Condition, Physical Properties, Spills (major), Storage (storage incompatibility), Storage (storage requirement), Storage (suitable container), Toxicity and Irritation (Irritation), Toxicity and Irritation (Toxicity Figure), Use

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources 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
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
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