

#### Identification of Substance & Company

**Product** 

Product name Flexible F.A.S.T Adhesive Dual Cartridge

Other names not assigned Product code STP900B

HSNO approval HSR002679 for Part A HSR002670 for Part B

Approval description Part A: Surface Coatings and Colourants (Toxic [6.7]) Group Standard 2017

Part B: Surface Coatings and Colourants (Subsidiary Hazard) Group

New Zealand

Standard 2017

UN number NA
DG class NA
Proper Shipping Name NA
Packaging group NA
Hazchem code NA

**Uses** Part B of two part adhesive for roofing systems

**Company Details** 

Company Viking Roofspec

Physical Address80 Alexander CrescentPO Box 14 451OtaraPanmureAucklandAuckland 1741

Telephone New Zealand 0800 729 799
Fax 0800 729 788

Website www.vikingroofspec.co.nz

### **Emergency Telephone Number: 0800 764 766**

#### 2. Hazard Identification

#### **Approval**

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

#### Classes Hazard Statements

PART A:

6.1D (inhalation) H332 - Harmful if inhaled.

6.1E (respiratory irritation) H335 - May cause respiratory irritation.

6.3A H315 - Causes skin irritation.

6.4A H319 - Causes serious eye irritation.

6.5A H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

6.5B H317 - May cause an allergic skin reaction.
6.7B H341 - Suspected of causing cancer.

6.9A H372 - Causes damage to organs through prolonged or repeated exposure.

#### **SYMBOLS**

### **DANGER**





Classes Hazard Statements

PART B:
6.1E (oral)
6.3A
H303 - May be harmful if swallowed
H315 - Causes skin irritation.
H320 - Causes eye irritation.

#### **SYMBOLS**

### WARNING



#### **Other Classifications**

There are no other classifications that are known to apply.

#### **Precautionary Statements for both parts**

- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe vapours.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/protective clothing.
- P280 Wear protective gloves/eye protection.
- P285 In case of inadequate ventilation wear respiratory protection.
- 302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P363 Wash contaminated clothing before reuse.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention
- P304+P341 IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
- P308+P313 IF exposed or concerned: Get medical advice/ attention.
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.

#### 3. Composition / Information on Ingredients

Component of Part A	CAS/ Identification	Conc (%)
Diphenylmethane-4,4-diisocyanate	101-68-8	25-60%
Diphenylmethane Diisocyanate (MDI) Mixed Isomers	26447-40-5	10-30%
Isocyanates, reaction product of polyol with methylenediphenyl diisocyanate	39420-98-9	10-30%
Benzene, 1,1'-methylenebis[isocyanato-, homopolymer	39310-05-9	10-30%
Diphenylmethane-2,4-diisocyanate	5873-54-1	10-30%
Diphenylmethanediisocyanate, isomers and homologues	9016-87-9	7-13%
4,4'-Methylenediphenyl-4,4'-diisocyanate, oligomers	25686-28-6	3-7%



Component of Part B	CAS/ Identification	Conc (%)
Dipropylene glycol	110-98-5	5-10%
Tris (1-chloro-2-propyl) phosphate	13674-84-5	10-20%
Triethylene diamine	280-57-9	0.1-1%
Ethanol, 2-(dimethylamino)-	108-01-0	0.1-1%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

#### 4. First Aid

#### **General Information**

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid

Ready access to running water is required. Accessible eyewash is required.

facilities

**Exposure** 

**Swallowed** Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

**Eye contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Apply continuous irrigation with water for at least 15 minutes

holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get

medical advice/attention. Wash contaminated clothing before reuse.

Inhaled IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position

comfortable for breathing. If experiencing respiratory symptoms: Call a POISON

CENTRE or doctor/physician.

#### **Advice to Doctor**

Treat symptomatically

### 5. Firefighting Measures

**Fire and explosion hazards:** There are no specific risks for fire/explosion for this chemical. It is not classed as

flammable. Excessive pressure or temperatures may cause explosive rupture of

containers.

Suitable extinguishing

substances:

Unsuitable extinguishing

substances:

Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

If using water use very large quantities of cold water. The reaction between water and hot

isocyanates may be vigorous.

**Products of combustion:** Carbon dioxide, and if combustion is incomplete, carbon monoxide, oxides of nitrogen

and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits

and other low-lying spaces, forming potentially explosive mixtures.

**Protective equipment:** Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat

and eye protection.

Hazchem code: NA

#### 6. Accidental Release Measures

**Containment**If greater than 1000L is stored, secondary containment and emergency plans to manage

any potential spills must be in place. In all cases design storage to prevent discharge to

storm water.

**Emergency procedures** If a significant spill occurs:

Stop leak if safe/necessary; Isolate area. Collect spill – see below; Transfer to container

for disposal. Dispose of according to guidelines below (Section 13).

Clean-up method Use absorbent (soil, sand or other inert material). Rags are not recommended for the

clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or

waterways has occurred advise local emergency services.

**Disposal** Mop up and collect recoverable material into labelled containers for recycling or salvage.

Recycle containers wherever possible. This material may be suitable for approved

landfill. Dispose of only in accord with all regulations.

**Precautions** No special protective clothing is normally necessary.

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#### Storage & Handling 7.

**Storage** Avoid storage of harmful substances with food. Store out of reach of children. Store in

original container only protected from direct sunlight in a dry, cool well ventilated area. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Do not store above 25°C. Avoid contact with incompatible

substances as listed in Section 10.

Handling Keep exposure to a minimum, and minimise the quantities kept in work areas.

> Wash hands after use. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

Do not eat, drink or smoke in work area.

Remove contaminated clothing or protective equipment before entering eating area.

#### **Exposure Controls / Personal Protective Equipment**

#### **Workplace Exposure Standards**

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m<sup>3</sup> for respirable particulates and 10mg/m<sup>3</sup> for inhalable particulates when limits have not otherwise been established.

**NZ** Workplace Ingredient **WES-TWA\* WES-STEL** Dipropylene glycol data unavailable data unavailable **Exposure Stds** 

Tris (1-chloro-2-propyl) phosphate data unavailable data unavailable triethylene diamine data unavailable data unavailable Ethanol, 2-(dimethylamino)-2ppm, 7.4mg/m<sup>3</sup> 6ppm, 22mg/m<sup>3</sup>

Diphenylmethane-4,4-diisocyanate 0.02mg/m<sup>3</sup> (for isocyanates) 0.07mg/m<sup>3</sup> (for Isocyanates) Diphenylmethane Diisocyanate (MDI) 0.02mg/m<sup>3</sup> (for isocyanates) 0.07mg/m<sup>3</sup> (for Isocyanates)

Mixed Isomers

#### **Engineering Controls**

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

#### **Personal Protective Equipment**

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes

Skin



are possible. Select eye protection in accordance with AS/NZS 1337.

Respiratory



Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Neoprene, Nitrile, Latex or butyl rubber gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a 'ENTER RESPIRATOR TYPE'. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary. It is important to note that odour cannot be used to indicate whether a respirator should be used or cartridges be replaced (the odour threshold for isocyanate is lower than the level at which toxic effects could occur).

#### **WES Additional Information**

Not applicable

<sup>\*</sup> These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.



#### 9. Physical & Chemical Properties

**Appearance** light yellow to amber liquid

Odour faint aromatic pH no data
Vapour pressure 0.00001mmHg
Viscosity 270mPa.s

Boiling point 200°C (@5mmHg)

Volatile materials no data Freezing / melting point <-20°C

**Solubility** reacts with water

Specific gravity / density 1.16g/cm³
Flash point 200°C
Danger of explosion no data
Auto-ignition temperature no data
Upper & lower flammable limits
Corrosiveness non corrosive

#### 10. Stability & Reactivity

Stability Stable at room temperatures and in dry conditions. Substance reacts with water to

produce carbon dioxide gas in an exothermic reaction (i.e. releases heat).

Conditions to be avoided Keep away from sources of ignition at all times. Containers should be kept closed in

order to avoid contamination.

**Incompatible groups**May react with alcohols, ammonia, amines, aqueous acids and alkalis (exothermic). With

water/moisture: carbon dioxide is produces; pressure may build up inside closed containers (danger of bursting). High humidity may harden contents of container or

cause valve blockage. As above.

Substance Specific Incompatibility

Hazardous decomposition

products

Hazardous reactions

Carbon monoxide, traces of hydrogen cyanide, oxides of nitrogen.

This substance reacts with water. The reaction may become progressively vigorous and can be violent at high temperatures depending on the solvents present and how well it is

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mixed with water.

### 11. Toxicological Information

#### **Summary**

Part A:

IF SWALLOWED: Low oral toxicity, but will irritate mouth, throat and stomach.

IF IN EYES: causes serious eve irritation resulting in pain, watering, redness.

IF ON SKIN: causes skin irritation. May cause an allergic skin reaction, possible effects included dermatitis (skin swelling, reddening and blistering), Effects may re-occur upon exposure to extremely low levels of isocyanate and related chemicals. Effects may be delayed after initial exposure.

IF INHALED: may be toxic if inhaled. May irritate respiratory tract. May cause an allergic response which can include hyperactive airway, bronchitis (wheezing, gasping, unconsciousness), neurological effects (e.g., headache, euphoria, depression). Effects may re-occur upon exposure to extremely low levels of isocyanate and related chemicals (e.g., exposure to vehicle exhaust). High vapour concentration may cause central nervous system depression causing drowsiness and dizziness.

CHRONIC TOXICITY: Diphenylmethane-4,4-diisocyanate is suspected of causing cancer if inhaled (EU ECHA). Sensitisation is considered a long term (chronic) effect. Chronic overexposure to isocyanates may cause lung damage including decrease in lung function, which may be permanent.

PART B:

IF IN EYES: may be irritating to eyes. IF ON SKIN: may causes mild skin irritation.



**Supporting Data for Part A** 

Acute Oral Using LD<sub>50</sub>'s for ingredients, the calculated LD<sub>50</sub> (oral, rat) for the mixture is >5,000

mg/kg. Data considered includes: Diphenylmethane-4,4-diisocyanate 2200 mg/kg (mouse), Diphenylmethane Diisocyanate (MDI) Mixed Isomers >5000mg/kg (rat), Isocyanates, Diphenylmethanediisocyanate, isomers and homologues >5000mg/kg (rat),

4,4'-Methylenediphenyl-4,4'-diisocyanate, oligomers >2000mg/kg (rat).

 $\label{eq:Dermal} \textbf{Dermal} \qquad \qquad \textbf{Using LD}_{50} \text{'s for ingredients, the calculated LD}_{50} \text{ (dermal, rat) for the mixture is } > 5000$ 

mg/kg. Data considered includes: Diphenylmethane-4,4-diisocyanate 9400mg/kg (rabbit)

**Inhaled**Using LC<sub>50</sub>'s for ingredients, the calculated LC<sub>50</sub> (inhalation, rat) for the mixture is between 1 and 5mg/L. Data considered includes: Diphenylmethane-4,4-diisocyanate 0.369 mg/l (rat, inhalation), Diphenylmethane Diisocyanate (MDI) Mixed Isomers 0.49mg/L (rat), isomers and homologues 0.49mg/L (rat), 4,4'-Methylenediphenyl-4,4'-

diisocyanate, oligomers 0.49mg/L rat, (air).

Eye The mixture is considered to be an eye irritant, because some of the ingredients present

are considered eye irritants in more concentrated form.

Skin The mixture is considered to be a skin irritant, because some of the ingredients present

are considered skin irritants in more concentrated form.

**Chronic** Sensitisation The mixture is considered to be a contact and respiratory sensitizer. Isocyanates are

considered sensitisers if inhaled and by dermal contact.

**Mutagenicity** No ingredient present at concentrations > 0.1% is considered a mutagen.

**Carcinogenicity**The mixture is considered to be a suspected carcinogen. IARC have evaluated diphenylmethan-4,4-diisocyanate as not classifiable as to its carcinogenicity to humans

(Group 3). However in the EU diphenylmethan-4,4-diisocyanate is classed as a

suspected carcinogen.

Reproductive / No ingredient present at concentrations > 0.1% is considered a reproductive or

**Developmental** developmental toxicant or have any effects on or via lactation. **Systemic** The mixture is considered to be a known or presumed target o

The mixture is considered to be a known or presumed target organ toxicant, because MDI analogues present in greater than 1% is known or presumed to be a target organ

toxicant. This product may cause respiratory irritation if inhaled.

**Aggravation of existing conditions**Individuals with impaired lung function or existing allergies (including dermatitis) should not work with this chemical – they are at increased risk of becoming sensitised with

further potential health effects.

**Supporting Data for Part B** 

Eve

Acute Oral Using LD<sub>50</sub>'s for ingredients, the calculated LD<sub>50</sub> (oral, rat) for the mixture is between

2000 and 5000 mg/kg. Data considered includes: Tris (1-chloro-2-propyl) phosphate

1017mg/kg (female rat), triethylene diamine 1700 mg/kg (rat), Ethanol, 2-

(dimethylamino)- 1830mg/kg (rat).

**Dermal** Using  $LD_{50}$ 's for ingredients, the calculated  $LD_{50}$  (dermal, rat) for the mixture is >5000

mg/kg. Data considered includes: Tris (1-chloro-2-propyl) phosphate >5000, triethylene diamine 3200 mg/kg, Ethanol, 2-(dimethylamino)- 1220mg/kg (rabbit).

**Inhaled** Using LC<sub>50</sub>'s for ingredients, the calculated LC<sub>50</sub> (inhalation, rat) for the mixture is >5mg/l.

Data considered includes: Tris (1-chloro-2-propyl) phosphate >4.6mg/IL (4 hours,

rat, aerosol), Ethanol, 2-(dimethylamino) - 1641ppm (rat, vapour) = 5.98mg/L (rat, vapour).

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The mixture is considered to be an eye irritant, because some of the ingredients present

are considered eye irritants in more concentrated form.

**Skin** The mixture is considered to be a skin irritant, because some of the ingredients present

are considered skin irritants in more concentrated form.

**Chronic** Sensitisation No ingredient present at concentrations > 0.1% is considered a sensitizer.

MutagenicityNo ingredient present at concentrations > 0.1% is considered a mutagen.CarcinogenicityNo ingredient present at concentrations > 0.1% is considered a carcinogen.Reproductive /No ingredient present at concentrations > 0.1% is considered a reproductive or

**Developmental** developmental toxicant or have any effects on or via lactation.

Systemic No ingredient present at concentrations > 1% is considered a target organ toxicant.

Aggravation of None known. existing conditions



#### 12. Ecological Data

**Summary** 

This mixture is not considered ecotoxic

**Supporting Data** 

**Aquatic** Using  $EC_{50}$ 's for ingredients, the calculated  $EC_{50}$  for the mixture is > 100 mg/L. Data

considered includes: Tris (1-chloro-2-propyl) phosphate 54.2mg/L (48hr, Fish), 30mg/L (96hr, fresh water fish), 63mg/L (48hr, Daphnia magna), 41mg/L (96hr, Selenastrum capricornutum (algae)), triethylene diamine EC<sub>50</sub>=92 mg/L - Daphnia, Ethanol, 2-(dimethylamino)- 81mg/L (96h, Pimephales promelas (Fish, fresh water)), 98.37mg/L (48h, Daphnia magna Straus), 35mg/L (72h, Scenedesmus sp. (Algae)). The substance

will react with water to form carbon dioxide and a non hazardous polymer.

Bioaccumulation No data
Degradability No data

**Soil** No evidence of soil toxicity.

**Terrestrial vertebrate**This mixture is not considered toxic towards terrestrial vertebrates.

**Terrestrial invertebrate** No evidence of toxicity towards terrestrial invertebrates.

13. Disposal Considerations

**Restrictions**There are no product-specific restrictions, however, local council and resource consent

conditions may apply, including requirements of trade waste consents.

Disposal method Disposal of this product must comply with the Hazardous Substances (Disposal) Notice

2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore

rendered non-hazardous before discharge to the environment.

Contaminated packaging Disposal of contaminated packaging must comply with the Hazardous Substances

(Disposal) Notice 2017 clause 12. Ensure that the package is renedered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible

reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:NAProper shipping name:NAClass(es)NAPacking group:NAPrecautions:NAHazchem code:NA

#### 15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002670, Surface Coatings and Colourants (Subsidiary Hazard) Group Standard 2017.

All Ingredients appear on the NZIoC.

#### **Specific Controls**

Key workplace requirements are:

SDS To be available within 10 minutes in workplaces storing any quantity.

Inventory An inventory of all hazardous substances must be prepared and maintained.

Packaging All hazardous substances should be appropriately packaged including substance

manufactured for own use or have been supplied

Labelling Must comply with the Hazardous Substances (Labelling) Notice 2017.

Emergency plan Required if > 1000L is stored.

Certified handler Not required.
Tracking Not required.

Bunding & secondary containment Required if > 1000L is stored.

Signage Required if > 10000L is stored.

Location compliance certificate Not required.
Flammable zone Not required.
Fire extinguisher Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

#### Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.



#### 16. Other Information

**Abbreviations** 

Approval Code

Part A: Approval HSR002679, Surface Coatings and Colourants (Toxic [6.7]) Group
Standard 2017, Part B: Approval HSR002670, Surface Coatings and Colourants

(Subsidiary Hazard) Group Standard 2017 Controls, EPA. www.epa.govt.nz

CAS Number Unique Chemical Abstracts Service Registry Number

Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical

agent to which a worker may be exposed at any time.

**Controls Matrix**List of default controls linking regulation numbers to Matrix code (e.g. T1, I16). **EC**<sub>50</sub>

List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).

Ecotoxic Concentration 50% − concentration in water which is fatal to 50% of a test

population (e.g. daphnia, fish species)

**EPA** Environmental Protection Authority (New Zealand)

HAZCHEM Code Emergency action code of numbers and letters that provide information to emergency

services, especially fire fighters

HSNO Hazardous Substances and New Organisms (Act and Regulations)

IARCInternational Agency for Research on CancerLEL/UELLower Explosive Limit/ Upper Explosive Limit

**LD**<sub>50</sub> Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).

Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population

(usually rats)

MSDS (SDS)

Material Safety Data Sheet (or Safety Data Sheet)

NZIoC New Zealand Inventory of Chemicals

PES Prescribed Exposure Standard means a WES or a biological exposure standard that is

prescribed in a regulation, a safe work instrument or an approval under HSNO (including

group standards).

STEL Short Term Exposure Limit - The maximum airborne concentration of a chemical or

biological agent to which a worker may be exposed in any 15 minute period, provided the

TWA is not exceeded

TWA Time Weighted Average – generally referred to WES averaged over typical work day

(usually 8 hours)

**UN Number** United Nations Number

WES Workplace Exposure Standard - The airborne concentration of a biological or chemical

agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring

using procedures that gather air samples in the worker's breathing zone.

References

Unless otherwise stated comes from the EPA HSNO chemical classification information

database (CCID).

Controls EPA notices, www.epa.govt.nz, Health and Safety at Work (Hazardous Substances)

Regulations 2017, www.legislation.govt.nz

WES The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available

on their web site - www.worksafe.govt.nz.

Other References: Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

**Review** 

Date Reason for review
July 2018 Not applicable – new SDS

#### **Disclaimer**

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). Full formulation details were not available. This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

