

Chemtools Pty Ltd

Chemwatch: 5656-79

Version No: 2.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Chemwatch Hazard Alert Code: 2

Issue Date: **23/02/2024** Print Date: **26/02/2024** S.GHS.AUS/NZ.EN.E

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

Product Identifier

Product name	Rapidstick™ 8-420 Structural Adhesive (Part B)
Chemical Name	Not Applicable
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether, bisphenol A/ diglycidyl ether resin, liquid, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine and phenol/ formaldehyde glycidyl ether copolymer)
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	Industrial use, Adhesives. Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name Chemtools Pty Ltd		Chemtools Ltd
Address	Unit 2, 14 - 16 Lee Holm Road St Marys NSW 2760 Australia	15/62 Factory Road Belfast Christchurch 8051 New Zealand
Telephone	1300 738 250, +61 2 9833 9766	+64 3 323 4177
Fax	+61 2 9623 3670	+61 2 9623 3670
Website	www.chemtools.com.au	www.chemtools.co.nz
Email	sales@chemtools.com.au	sales@chemtools.com.au

Emergency telephone number

Association / Organisation	Poisons Information Centre	National Poisons Centre
Emergency telephone numbers	13 11 26	0800 764 766
Other emergency telephone numbers	Not Available	Not Available

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Poisons Schedule	S5
Classification ^[1]	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Germ Cell Mutagenicity Category 2, Reproductive Toxicity Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements



Signal word Warning

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
AUH019	May form explosive peroxides.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
P273	Avoid release to the environment.
P264	Wash all exposed external body areas thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Collect spillage.

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.
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Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Goods for transport purposes.

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification [1]

Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2, Germ Cell Mutagenicity Category 2, Reproductive Toxicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2 Version No: 2.1

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Rapidstick[™] 8-420 Structural Adhesive (Part B)

Legend:	1. Classified by Chemwatch; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI
Determined by Chemwatch using GHS/HSNO criteria	6.3A, 6.4A, 6.5B (contact), 6.6B, 6.8B, 6.9B, 9.1B

Label elements

Hazard pictogram(s)	
Signal word	Warning

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P273	Avoid release to the environment.
P264	Wash all exposed external body areas thoroughly after handling.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Precautionary statement(s) Storage

P405

Store locked up.

Precautionary statement(s) Disposal

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

SECTION 3 Composition / information on ingredients

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
9003-36-5	10-<80	phenol/ formaldehyde glycidyl ether copolymer
25068-38-6	<60	bisphenol A/ diglycidyl ether resin, liquid
34562-31-7	>=15-<30	3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine
1675-54-3	<10	bisphenol A diglycidyl ether
148861-07-8	>=0.5-<10	triethylborane-1,3-diaminopropane complex
80-62-6	<1	methyl methacrylate
109-76-2	<1	1,3-propylenediamine
Not Available	balance	Ingredients determined not to be hazardous
Legend:	1. Classified by Chemwatc 1272/2008 - Annex VI; 4. C	h; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No Slassification 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 or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
Ingestion	 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.

Indication of any immediate medical attention and special treatment needed

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

For poisons (where specific treatment regime is absent):

BASIC TREATMENT

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.
- Administer oxygen by non-rebreather mask at 10 to 15 L/min.
- Monitor and treat, where necessary, for pulmonary oedema.

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- Monitor and treat, where necessary, for shock.
- Anticipate seizures.
- DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

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

Proparacaine hydrochloride should be used to assist eye irrigation.

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

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

SECTION 5 Firefighting measures

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

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 full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) aldehydes nitrogen oxides (NOx) other pyrolysis products typical of burning organic material.

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
WIIIIOI	opina

In the event of a spill of a reactive diluent, the focus is on containing the spill to prevent contamination of soil and surface or ground water.

e, labelled container for waste disposal.
sonnel and move upwind. and tell them location and nature of hazard. ptective clothing with breathing apparatus. aans available, spillage from entering drains or water courses. tion (or protect in place). ad lights or ignition sources. on. o do so. g may be used to disperse / absorb vapour. o spill with sand, earth or vermiculite. le product into labelled containers for recycling. tues and seal in labelled drums for disposal. revent runoff into drains. erations, decontaminate and launder all protective clothing and equipment before storing and re-using. of drains or waterways occurs, advise emergency services. d - contain spillage. eases of reactive diluents are infrequent and generally contained. If a large spill does occur, the material collected, and reprocessed or disposed of according to applicable governmental requirements.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	Avoid reaction with oxidising agents



X — Must not be stored together

0 — May be stored together with specific preventions

+ — May be stored together

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

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
New Zealand Workplace Exposure Standards (WES)	bisphenol A/ diglycidyl ether resin, liquid	Respirable dust (not otherwise classified)	3 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	bisphenol A/ diglycidyl ether resin, liquid	Inhalable dust (not otherwise classified)	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	bisphenol A diglycidyl ether	Inhalable dust (not otherwise classified)	10 mg/m3	Not Available	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	bisphenol A diglycidyl ether	Respirable dust (not otherwise classified)	3 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	methyl methacrylate	Methyl methacrylate	50 ppm / 208 mg/m3	416 mg/m3 / 100 ppm	Not Available	Not Available
New Zealand Workplace Exposure Standards (WES)	methyl methacrylate	Methyl methacrylate	50 ppm / 208 mg/m3	416 mg/m3 / 100 ppm	Not Available	(skin) - Skin absorption (dsen) - Dermal sensitiser

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
bisphenol A/ diglycidyl ether resin, liquid	90 mg/m3	990 mg/m3	5,900 mg/m3
bisphenol A diglycidyl ether	39 mg/m3	430 mg/m3	2,600 mg/m3
bisphenol A diglycidyl ether	90 mg/m3	990 mg/m3	5,900 mg/m3
methyl methacrylate	Not Available	Not Available	Not Available
1,3-propylenediamine	0.93 mg/m3	10 mg/m3	61 mg/m3

Ingredient	Original IDLH	Revised IDLH
phenol/ formaldehyde glycidyl ether copolymer	Not Available	Not Available
bisphenol A/ diglycidyl ether resin, liquid	Not Available	Not Available
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Not Available	Not Available
bisphenol A diglycidyl ether	Not Available	Not Available
triethylborane- 1,3-diaminopropane complex	Not Available	Not Available
methyl methacrylate	1,000 ppm	Not Available
1,3-propylenediamine	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit

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.

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Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
phenol/ formaldehyde glycidyl ether copolymer	E	≤ 0.1 ppm	
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	E	≤ 0.1 ppm	
triethylborane- 1,3-diaminopropane complex	E	≤ 0.1 ppm	
1,3-propylenediamine	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				
	Engineering controls are used to remove a hazard or place a engineering controls can be highly effective in protecting wor provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activi Enclosure and/or isolation of emission source which keeps a that strategically "adds" and "removes" air in the work enviro designed properly. The design of a ventilation system must n Employers may need to use multiple types of controls to prev Local exhaust ventilation usually required. If risk of overexpo obtain adequate protection. Supplied-air type respirator may ensure adequate protection. An approved self contained breathing apparatus (SCBA) ma Provide adequate ventilation in warehouse or closed storage "escape" velocities which, in turn, determine the "capture vel contaminant.	a barrier between the worker and the hazard. kers and will typically be independent of wor ty or process is done to reduce the risk. selected hazard "physically" away from the nment. Ventilation can remove or dilute an ai natch the particular process and chemical or vent employee overexposure. sure exists, wear approved respirator. Correct be required in special circumstances. Correct y be required in some situations. e area. Air contaminants generated in the wor ocities" of fresh circulating air required to effect	Well-designed ker interactions to worker and ventilation ir contaminant if contaminant in use. ct fit is essential to ct fit is essential to rkplace possess varying ectively remove the	
	Type of Contaminant:		Air Speed:	
	solvent, vapours, degreasing etc., evaporating from tank (i	n still air).	0.25-0.5 m/s (50-100 f/min.)	
Appropriate engineering controls	aerosols, fumes from pouring operations, intermittent conta welding, spray drift, plating acid fumes, pickling (released a generation)	0.5-1 m/s (100-200 f/min.)		
	direct spray, spray painting in shallow booths, drum filling, discharge (active generation into zone of rapid air motion)	conveyer loading, crusher dusts, gas	1-2.5 m/s (200-500 f/min.)	
	grinding, abrasive blasting, tumbling, high speed wheel get velocity into zone of very high rapid air motion).	nerated dusts (released at high initial	2.5-10 m/s (500-2000 f/min.)	
	Within each range the appropriate value depends on:			
	Lower end of the range Upper end of the range			
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents		
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity		
	3: Intermittent, low production.	3: High production, heavy use		
	4: Large hood or large air mass in motion	4: Small hood-local control only		

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Individual protection measures, such as personal protective equipment



- Safety glasses with side shields.
- Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]

Eye and face protection

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

	Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].
Skin protection	See Hand protection below
Skin protection	 See Hand protection below 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. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves, and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and drized throroughly. Application of a non-perfumed moisturiser is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: frequency and duration of contact, chemical resistance of glove material, glove thickness and dotavitify Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). When only brief contact is expected, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-termative second class of 30 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent). For duranized gloves should be
Debaard	 Neoprene gloves See Other exetention holes
Body protection	
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

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:

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Material	СРІ
BUTYL	С
NEOPRENE	С
PE/EVAL/PE	С
PVA	С

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 varies with Type of filter.

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

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PVC	С
TEFLON	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.

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)

- 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	Black liquid.		
Physical state	Liquid	Relative density (Water = 1)	Not Available
Odour	Characteristic	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	20000-50000
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	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)	Not Available	Gas group	Not Available
Solubility in water	Not Available	pH as a solution (1%)	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

Inhaled	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. 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. In animal testing, exposure to aerosols of reactive diluents (especially o-cresol glycidyl ether, CAS RN:2210-79-9) has been reported to affect the adrenal gland, central nervous system, kidney, liver, ovaries, spleen, testes, thymus and respiratory tract.
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Reactive diluents exhibit a range of ingestion hazards. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. However, swallowing larger amounts may cause injury.
Skin Contact	The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. 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. Skin contact with reactive diluents may cause slight to moderate irritation with local redness. Repeated or prolonged skin contact may cause burns.
Eye	This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure. Eye contact with reactive diluents may cause slight to severe irritation with the possibility of chemical burns or moderate to severe damage to the cornea.
Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Strong evidence exists that this substance may cause irreversible mutations (though not lethal) even following a single exposure. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. Ample evidence from experiments exists that there is a suspicion this material directly reduces fertility. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother. For some reactive diluents, prolonged or repeated skin contact may result in absorption of potentially harmful amounts or allergic skin reactions. Exposure to some reactive diluents (notably, neopentylglycol diglycidyl ether, CAS RN: 17557-23-2) has caused cancer in some animal testing. There is ample evidence that this material can be regarded as being able to cause cancer in humans based on experiments and other information.

	TOXICITY	IRRITATION	
Structural Adnesive (Part B)	Not Available	Not Available	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
phenol/ formaldehyde	dermal (rat) LD50: >400 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]	
giyoldyr chier copolymer	Oral (Rat) LD50: >5000 mg/kg ^[2]	Skin: adverse effect observed (irritating) ^[1]	
	τοχιζιτγ	IRRITATION	
bisphenol A/ diglycidyl ether resin, liquid	dermal (rat) LD50: >1200 mg/kg ^[2]	Eye (rabbit): 100mg - Mild	
	Oral (Mouse) LD50; >500 mg/kg ^[2]		
	τοχιριτχ	IDDITATION	
	ТОЛІСТТІ	IRRITATION	
3,5-diethyl-1,2-dihydro-	Dermal (rabbit) LD50: >1000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]	
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Dermal (rabbit) LD50: >1000 mg/kg ^[1] Oral (Rat) LD50: >500 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1]	
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Dermal (rabbit) LD50: >1000 mg/kg ^[1] Oral (Rat) LD50: >500 mg/kg ^[1] TOXICITY	IRRITATION Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1] IRRITATION	
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine bisphenol A diglycidyl	TOXICITY Dermal (rat) LD50: >500 mg/kg ^[1] TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1] IRRITATION Eye (rabbit): 2 mg/24h - SEVERE	
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine bisphenol A diglycidyl ether	Toxicitit Dermal (rabbit) LD50: >1000 mg/kg ^[1] Oral (Rat) LD50: >500 mg/kg ^[1] Toxicity dermal (rat) LD50: >2000 mg/kg ^[1] Oral (Rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: adverse effect observed (irritating) ^[1] Skin: adverse effect observed (irritating) ^[1] IRRITATION Eye (rabbit): 2 mg/24h - SEVERE Eye: adverse effect observed (irritating) ^[1]	

		Skin (rabbit): 500 mg - mild
		Skin: adverse effect observed (irritating) $^{\left[1 \right]}$
triethylborane-	ΤΟΧΙΟΙΤΥ	IRRITATION
1,3-diaminopropane complex	Not Available	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
	Dermal (rabbit) LD50: >5000 mg/kg ^[2]	Eye (rabbit): 150 mg
methyl methacrylate	Inhalation(Rat) LC50: 29.8 mg/l4h ^[1]	Skin (rabbit): 10000 mg/kg (open)
	Oral (Rat) LD50: 7872 mg/kg ^[2]	
	ΤΟΧΙΟΙΤΥ	IRRITATION
	Dermal (rabbit) LD50: 200 mg/kg ^[2]	Eye (rabbit): 1 mg - SEVERE
1,3-propylenediamine	Inhalation(Rat) LC50: >2.075 mg/l4h ^[1]	Skin (rabbit): 50 mg(open)SEVERE
	Oral (Rat) LD50: 350 mg/kg ^[2]	
Legend:	1. Value obtained from Europe ECHA Registered Sul	bstances - Acute toxicity 2. Value obtained from manufacturer's SDS

Rapidstick™ 8-420 Structural Adhesive (Part B)	Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. The various members of the bisphenol family produce hormone like effects, seemingly as a result of binding to estrogen receptor- related receptors (ERRs; not to be confused with estrogen receptors) A suspected estrogen-related receptors (ERR) binding agent: Estrogen-related receptors (ERR, oestrogen-related receptors) are so named because of sequence homology with estrogen receptors but do not appear to bind estrogens or other tested steroid hormones. The ERR family have been demonstrated to control energy homeostasis, oxidative metabolism and mitochondrial biogenesis, while effecting mammalian physiology in the heart, brown adipose tissue, white adipose tissue, placenta, macrophages, and demonstrated additional roles in diabetes and cancer. ERRs bind enhancers throughout the genome where they exert effects on gene regulation Although their overall functions remain uncertain, they also share DNA-binding sites, co-regulators, and target genes with the conventional estrogen receptors ERalpha and ERbeta and may function to modulate estrogen signaling pathways. • ERR-alpha has wide tissue distribution but it is most highly expressed in tissues that preferentially use fatty acids as energy sources such as kidney, heart, brown adipose tissue, cerebellum, intestine, and skeletal muscle. ERRalpha has been detected in normal adrenal cortex tissues, in which its expression is possibly related to adrenal development, with a possible role in fetal adrenal function, in dehydroepiandrosterone (DHEAS) production in adrenarche, and also in steroid production of post-adrenarche/adult life. DHEA and other adrenal androgens such as early pubic and axillary hair growth, adult-type body odor, increased oiliness of hair and skin, and mild acne. • ERR-gamma is a nuclear receptor 1. Its function is unknown; however, a similar protein in mouse plays
BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID	Foetoxicity has been observed in animal studies Oral (rabbit, female) NOEL 180 mg/kg (teratogenicity; NOEL (maternal 60 mg/kg
3,5-DIETHYL- 1,2-DIHYDRO-1-PHENYL- 2-PROPYLPYRIDINE	product: >95% * National Starch and Chemical Company NJ, USA
BISPHENOL A DIGLYCIDYL ETHER	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. Glycidyl ethers can cause genetic damage and cancer. For 1,2-butylene oxide (ethyloxirane): In animal testing, ethyloxirane increased the incidence of tumours of the airways in animals exposed via inhalation. However, tumours were not observed in mice chronically exposed via skin. Two structurally related substances, oxirane (ethylene oxide) and methyloxirane (propylene oxide), which are also direct-acting alkylating agents, have been classified as causing cancer. 55badger
METHYL METHACRYLATE	Inhalation (human) TCLo: 60 mg/m3(15 ppm) [* Manuf. Rohm & Haas] MMA is absorbed after inhalation, oral intake and less readily through the skin. Following inhalation it is partly deposited in the airway where it is metabolised by local enzymes. Acute toxicity is low. Skin, eye and airway irritation can result as well as

RESIN, LIQUID

Page 13 of 21 Rapidstick[™] 8-420 Structural Adhesive (Part B) degeneration of the smell function of the nose. Long term exposure may result in damage to the liver, kidney, brain, spleen and bone marrow. It may cause mutations, especially at high doses. There is no relevant concern for effects on reproduction or cancer. Where no "official" classification for acrylates and methacrylates exists, there have been cautious attempts to create classifications in the absence of contrary evidence. For example Monalkyl or monoarylesters of acrylic acids should be classified as R36/37/38 and R51/53 Monoalkyl or monoaryl esters of methacrylic acid should be classified as R36/37/38 Based on the available oncogenicity data and without a better understanding of the carcinogenic mechanism the Health and Environmental Review Division (HERD), Office of Toxic Substances (OTS), of the US EPA previously concluded that all chemicals that contain the acrylate or methacrylate moiety (CH2=CHCOO or CH2=C(CH3)COO) should be considered to be a carcinogenic hazard unless shown otherwise by adequate testing. This position has now been revised and acrylates and methacrylates are no longer de facto carcinogens. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 1,3-PROPYLENEDIAMINE 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. Exposure to the material for prolonged periods may cause physical defects in the developing embryo (teratogenesis). Rapidstick[™] 8-420 Structural Adhesive (Part B) & PHENOL/ FORMALDEHYDE **GLYCIDYL ETHER COPOLYMER &** The following information refers to contact allergens as a group and may not be specific to this product. **BISPHENOL A/** Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The DIGLYCIDYL ETHER pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic **RESIN, LIQUID &** skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not 3,5-DIETHYLsimply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are 1.2-DIHYDRO-1-PHENYLequally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with 2-PROPYLPYRIDINE & stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are **BISPHENOL A** noteworthy if they produce an allergic test reaction in more than 1% of the persons tested. **DIGLYCIDYL ETHER &** TRIETHYLBORANE-**1.3-DIAMINOPROPANE COMPLEX & METHYL METHACRYLATE & 1.3-PROPYLENEDIAMINE** Rapidstick[™] 8-420 Structural Adhesive (Part B) & TRIETHYLBORANE-No significant acute toxicological data identified in literature search. 1.3-DIAMINOPROPANE COMPLEX Animal testing over 13 weeks showed bisphenol A diglycidyl ether (BADGE) caused mild to moderate, chronic, inflammation of the skin Rapidstick[™] 8-420 Reproductive and Developmental Toxicity: Animal testing showed BADGE given over several months caused reduction in body Structural Adhesive (Part weight but had no reproductive effects. B) & BISPHENOL A/ Cancer-causing potential: It has been concluded that bisphenol A diglycidyl ether cannot be classified with respect to its cancer-DIGLYCIDYL ETHER causing potential in humans. **RESIN, LIQUID &** Genetic toxicity: Laboratory tests on genetic toxicity of BADGE have so far been negative. **BISPHENOL A** Immunotoxicity: Animal testing suggests regular injections of diluted BADGE may result in sensitization. DIGLYCIDYL ETHER Consumer exposure: Comsumer exposure to BADGE is almost exclusively from migration of BADGE from can coatings into food. Testing has not found any evidence of hormonal disruption. The chemical structure of hydroxylated diphenylalkanes or bisphenols consists of two phenolic rings joined together through a bridging carbon. This class of endocrine disruptors that mimic oestrogens is widely used in industry, particularly in plastics. Bisphenol A (BPA) and some related compounds exhibit oestrogenic activity in human breast cancer cell line MCF-7, but there were remarkable 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. Results suggest that the 4-hydroxyl group of the A-phenyl ring and the B-phenyl ring of Rapidstick[™] 8-420 BPA derivatives are required for these hormonal activities, and substituents at the 3,5-positions of the phenyl rings and the Structural Adhesive (Part bridging alkyl mojety markedly influence the activities. B) & PHENOL/ Bisphenols promoted cell proliferation and increased the synthesis and secretion of cell type-specific proteins. When ranked by FORMALDEHYDE proliferative potency, the longer the alkyl substituent at the bridging carbon, the lower the concentration needed for maximal cell GLYCIDYL ETHER yield; the most active compound contained two propyl chains at the bridging carbon. Bisphenols with two hydroxyl groups in the COPOLYMER & para position and an angular configuration are suitable for appropriate hydrogen bonding to the acceptor site of the oestrogen **BISPHENOL A/** receptor DIGLYCIDYL ETHER

In vitro cell models were used to evaluate the ability of 22 bisphenols (BPs) to induce or inhibit estrogenic and androgenic activity. BPA, Bisphenol AF (BPAF), bisphenol Z (BPZ), bisphenol C (BPC), tetramethyl bisphenol A (TMBPA), bisphenol S (BPS), bisphenol E (BPE), 4,4-bisphenol F (4,4-BPF), bisphenol AP (BPAP), bisphenol B (BPB), tetrachlorobisphenol A (TCBPA), and benzylparaben (PHBB) induced estrogen receptor (ER)alpha and/or ERbeta-mediated activity. With the exception of BPS, TCBPA, and PHBB, these same BPs were also androgen receptor (AR) antagonists. Only 3 BPs were found to be ER antagonists. Bisphenol P (BPP) selectively inhibited ERbeta-mediated activity and 4-(4-phenylmethoxyphenyl)sulfonylphenol

	(BPS-MPE) and 2,4-bisphenol S (2,4-BPS) select AR-mediated activity.	ctively inhibited ERalpha-mediate	d activity. None of the BPs induced	
Rapidstick™ 8-420 Structural Adhesive (Part B) & BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID & BISPHENOL A DIGLYCIDYL ETHER & METHYL METHACRYLATE	The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.			
Rapidstick™ 8-420 Structural Adhesive (Part B) & PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. 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.			
Rapidstick™ 8-420 Structural Adhesive (Part B) & BISPHENOL A DIGLYCIDYL ETHER	Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) share many common characteristics with respect to animal toxicology. One such oxirane is ethyloxirane; data presented here may be taken as representative.			
TRIETHYLBORANE- 1,3-DIAMINOPROPANE COMPLEX & METHYL METHACRYLATE & 1,3-PROPYLENEDIAMINE	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. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.			
Acute Toxicity	×	Carcinogenicity	×	
Skin Irritation/Corrosion	×	Reproductivity	¥	
Serious Eye	×	STOT - Single Exposure	x	

Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	*	Aspiration Hazard	×
	Le	gend: 🗙 – Data either not ava	ailable or does not fill the criteria for classification

Legend:

Data available to make classification

SECTION 12 Ecological information

Toxicity					
Rapidstick™ 8-420 Structural Adhesive (Part B)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
where all forms all do hundr	Endpoint	Test Duration (hr)	Species	Value	Source
pnenol/ formaldenyde glycidyl ether copolymer	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	~2mg/l	2
bisphenol A/ diglycidyl ether resin, liquid	LC50	96h	Fish	2.4mg/l	Not Available
	EC50(ECx)	24h	Crustacea	3mg/l	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Not Available	Not Available	Not Available	Not Available	Not Available

	Endpoint	Test Duration (hr)	Species	Value	Sourc
bisphenol A diglycidyl	EC50	48h	Crustacea	1.1mg/l	2
	EC50	72h	Algae or other aquatic plants	9.4mg/l	2
etter	NOEC(ECx)	504h	Crustacea	0.3mg/l	2
	LC50	96h	Fish	1.2mg/l	2
triethylborane-	Endpoint	Test Duration (hr)	Species	Value	Source
1,3-diaminopropane complex	Not Available	Not Available	Not Available	Not Available	Not Availat
methyl methacrylate	Endpoint	Test Duration (hr)	Species	Value	Sour
	EC50	48h	Crustacea	69mg/l	1
	EC50	96h	Algae or other aquatic plants	170mg/l	1
	EC50	72h	Algae or other aquatic plants	>110mg/l	2
	EC0(ECx)	48h	Crustacea	48mg/l	1
	LC50	96h	Fish	>79mg/l	2
	Endpoint	Test Duration (hr)	Species	Value	Sour
	EC50	96h	Algae or other aquatic plants	199.9mg/l	2
	EC50	48h	Crustacea	27mg/l	2
1,3-propylenediamine	EC50	72h	Algae or other aquatic plants	175.1mg/l	2
	NOEC(ECx)	Not Available	Fish	>1mg/l	2
	LC50	96h	Fish	>100mg/l	2

Very 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
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	HIGH	HIGH
bisphenol A diglycidyl ether	HIGH	HIGH
methyl methacrylate	LOW	LOW
1,3-propylenediamine	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
bisphenol A/ diglycidyl ether resin, liquid	LOW (LogKOW = 2.6835)
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	HIGH (LogKOW = 6.5781)
bisphenol A diglycidyl ether	MEDIUM (LogKOW = 3.8446)
methyl methacrylate	LOW (BCF = 6.6)
1,3-propylenediamine	LOW (LogKOW = -1.43)

Mobility in soil

Ingredient	Mobility
bisphenol A/ diglycidyl ether resin, liquid	LOW (KOC = 51.43)
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	LOW (KOC = 34730)

Ingredient	Mobility
bisphenol A diglycidyl ether	LOW (KOC = 1767)
methyl methacrylate	LOW (KOC = 10.14)
1,3-propylenediamine	LOW (KOC = 45.59)

SECTION 13 Disposal considerations

Waste treatment method	s
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: 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. Where possible retain label warnings and SDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Recycling Disposal (if all else fails) This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shell life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. D NOT allow wash water form 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 sever 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.

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous.

Only dispose to the environment if a tolerable exposure limit has been set for the substance.

Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

SECTION 14 Transport information

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Land transport (ADG)

14.1. UN number or ID	3082

number			
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether, bisphenol A/ diglycidyl ether resin, liquid, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine and phenol/ formaldehyde glycidyl ether copolymer)		
14.3. Transport hazard class(es)	Class9Subsidiary HazardNot Applicable		
14.4. Packing group	III		
14.5. Environmental hazard	Environmentally hazardous		
14.6. Special precautions for user	Special provisions	274 331 335 375 AU01 5 L	

Land transport (UN)

14.1. UN number or ID number	3082			
14.2. UN proper shipping name	ENVIRONMENTALLY ether resin, liquid, 3,5-	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether, bisphenol A/ diglycidyl ether resin, liquid, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine and phenol/ formaldehyde glycidyl ether copolymer)		
14.3. Transport hazard class(es)	Class 9 Subsidiary Hazard Not Applicable			
14.4. Packing group	III			
14.5. Environmental hazard	Environmentally hazardous			
14.6. Special precautions for user	Special provisions274; 331; 335; 375Limited quantity5 L			

Air transport (ICAO-IATA / DGR)

14.1. UN number	3082			
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains bisphenol A diglycidyl ether, bisphenol A/ diglycidyl ether resin, liquid, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine and phenol/ formaldehyde glycidyl ether copolymer)			
14.3. Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subsidiary Hazard ERG Code	9 Not Applicable 9L		
14.4. Packing group	III			
14.5. Environmental hazard	Environmentally hazardous			
	Special provisions		A97 A158 A197 A215	
	Cargo Only Packing Instructions		964	
14.6. Special precautions for user	Cargo Only Maximum Qiy / Pack		450 L	
	Passenger and Cargo Packing In	ISTRUCTIONS	964	
	Passenger and Cargo Maximum	Qty / Pack	450 L	
	Passenger and Cargo Limited Qu	uantity Packing Instructions	Y964	
	Passenger and Cargo Limited Ma	aximum Qty / Pack	30 kg G	

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	3082		
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether, bisphenol A/ diglycidyl ether resin, liquid, 3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine and phenol/ formaldehyde glycidyl ether copolymer)		
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Hazard	9 Not Applicable	
14.4. Packing group	Ш		

Issue Date: 23/02/2024 Print Date: 26/02/2024

Rapidstick[™] 8-420 Structural Adhesive (Part B)

14.5 Environmental hazard	Marine Pollutant		
14.6. Special precautions for user	EMS Number	F-A , S-F	-
	Special provisions	274 335 969	-
	Limited Quantities	5 L	

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

Not Applicable

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

Product name	Group
phenol/ formaldehyde glycidyl ether copolymer	Not Available
bisphenol A/ diglycidyl ether resin, liquid	Not Available
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Not Available
bisphenol A diglycidyl ether	Not Available
triethylborane- 1,3-diaminopropane complex	Not Available
methyl methacrylate	Not Available
1,3-propylenediamine	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
phenol/ formaldehyde glycidyl ether copolymer	Not Available
bisphenol A/ diglycidyl ether resin, liquid	Not Available
3,5-diethyl-1,2-dihydro- 1-phenyl-2-propylpyridine	Not Available
bisphenol A diglycidyl ether	Not Available
triethylborane- 1,3-diaminopropane complex	Not Available
methyl methacrylate	Not Available
1,3-propylenediamine	Not Available

SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

HSR Number	Group Standard
HSR002521	Animal Nutritional and Animal Care Products Group Standard 2020
HSR002530	Cleaning Products Subsidiary Hazard Group Standard 2020
HSR002535	Gases under Pressure Mixtures Subsidiary Hazard Group Standard 2020
HSR002503	Additives Process Chemicals and Raw Materials Subsidiary Hazard Group Standard 2020
HSR002606	Lubricants Lubricant Additives Coolants and Anti freeze Agents Subsidiary Hazard Group Standard 2020
HSR002612	Metal Industry Products Subsidiary Hazard Group Standard 2020
HSR002624	N.O.S. Subsidiary Hazard Group Standard 2020
HSR002638	Photographic Chemicals Subsidiary Hazard Group Standard 2020
HSR002644	Polymers Subsidiary Hazard Group Standard 2020
HSR002647	Reagent Kits Group Standard 2020
HSR002648	Refining Catalysts Group Standard 2020
HSR002653	Solvents Subsidiary Hazard Group Standard 2020

HSR Number	Group Standard
HSR002670	Surface Coatings and Colourants Subsidiary Hazard Group Standard 2020
HSR002684	Water Treatment Chemicals Subsidiary Hazard Group Standard 2020
HSR100425	Pharmaceutical Active Ingredients Group Standard 2020
HSR002600	Leather and Textile Products Subsidiary Hazard Group Standard 2020
HSR002544	Construction Products Subsidiary Hazard Group Standard 2020
HSR002549	Corrosion Inhibitors Subsidiary Hazard Group Standard 2020
HSR002552	Cosmetic Products Group Standard 2020
HSR002558	Dental Products Subsidiary Hazard Group Standard 2020
HSR002565	Embalming Products Subsidiary Hazard Group Standard 2020
HSR002571	Fertilisers Subsidiary Hazard Group Standard 2020
HSR002573	Fire Fighting Chemicals Group Standard 2021
HSR002578	Food Additives and Fragrance Materials Subsidiary Hazard Group Standard 2020
HSR002585	Fuel Additives Subsidiary Hazard Group Standard 2020
HSR002596	Laboratory Chemicals and Reagent Kits Group Standard 2020
HSR100757	Veterinary Medicines Limited Pack Size Finished Dose Group Standard 2020
HSR100758	Veterinary Medicines Non dispersive Closed System Application Group Standard 2020
HSR100759	Veterinary Medicines Non dispersive Open System Application Group Standard 2020
HSR100592	Agricultural Compounds Special Circumstances Group Standard 2020
HSR100756	Active Ingredients for Use in the Manufacture of Agricultural Compounds Group Standard 2020

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

phenol/ formaldehyde glycidyl ether copolymer is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

bisphenol A/ diglycidyl ether resin, liquid 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

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

New Zealand Workplace Exposure Standards (WES)

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

bisphenol A diglycidyl ether is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

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

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

International WHO List of Proposed Occupational Exposure Limit (OEL) Values for Manufactured Nanomaterials (MNMS)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Land Transport Rule: Dangerous Goods 2005 - Schedule 1 Quantity limits for dangerous goods

New Zealand Workplace Exposure Standards (WES)

Not /	App	licat	ble

methyl methacrylate 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 10 / Appendix C

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

1,3-propylenediamine is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

Additional Regulatory Information

Not Applicable

Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Quantities
Not Applicable	Not Applicable

Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Class of substance	Quantities
Not Applicable	Not Applicable

Refer Group Standards for further information

Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

Hazard Class	Gas (aggregate water capacity in mL)	Liquid (L)	Solid (kg)	Maximum quantity per package for each classification
6.5A or 6.5B	120	1	3	

Tracking Requirements

Not Applicable

National Inventory Status

National Inventory	Status
Australia - AIIC / Australia Non-Industrial Use	No (triethylborane-1,3-diaminopropane complex)
Canada - DSL	No (triethylborane-1,3-diaminopropane complex)
Canada - NDSL	No (phenol/ formaldehyde glycidyl ether copolymer; bisphenol A/ diglycidyl ether resin, liquid; 3,5-diethyl-1,2-dihydro-1-phenyl- 2-propylpyridine; bisphenol A diglycidyl ether; triethylborane-1,3-diaminopropane complex; methyl methacrylate; 1,3-propylenediamine)
China - IECSC	No (triethylborane-1,3-diaminopropane complex)
Europe - EINEC / ELINCS / NLP	No (triethylborane-1,3-diaminopropane complex)
Japan - ENCS	No (3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine; triethylborane-1,3-diaminopropane complex)
Korea - KECI	No (triethylborane-1,3-diaminopropane complex)
New Zealand - NZIoC	No (triethylborane-1,3-diaminopropane complex)

National Inventory	Status
Philippines - PICCS	No (triethylborane-1,3-diaminopropane complex)
USA - TSCA	No (triethylborane-1,3-diaminopropane complex)
Taiwan - TCSI	No (triethylborane-1,3-diaminopropane complex)
Mexico - INSQ	No (3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine; bisphenol A diglycidyl ether; triethylborane-1,3-diaminopropane complex)
Vietnam - NCI	No (triethylborane-1,3-diaminopropane complex)
Russia - FBEPH	No (3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine; triethylborane-1,3-diaminopropane complex)
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	23/02/2024
Initial Date	23/02/2024

Other information

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

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

