Resene Paints (Australia) Limited

Version No: 5.11

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 26/10/2022 Print Date: 26/10/2022 S.GHS.AUS.EN

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

Product Identifier	
Product name	Altex Epoxy Glue Part A
Synonyms	Not Available
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Other means of identification	Not Available

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

Relevant identified uses	Part A of a two pack epoxy industrial glue

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Resene Paints (Australia) Limited	Altex Coatings Ltd
Address	7 Production Avenue, Molendinar Queensland 4214 Australia	91-111 Oropi Road Tauranga 3112 New Zealand
Telephone	+61 7 55126600	+64 7 541 1221
Fax	+61 7 55126697	+64 7 541 1310
Website	www.resene.com.au	www.altexcoatings.com
Email	Not Available	neil.debenham@carboline.co.nz

Emergency telephone number

Association / Organisation	AUSTRALIAN POISONS CENTRE	NZ POISONS (24hr 7 days)	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	131126	0800 764766	+61 1800 951 288
Other emergency telephone numbers	Not Available	Not Available	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

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

Poisons Schedule	Not Applicable
Classification ^[1]	Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) Category 3, Hazardous to the Aquatic Environment Long-Term Hazard Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Skin Corrosion/Irritation Category 2, Reproductive Toxicity Category 2, Sensitisation (Skin) Category 1
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)			¥2
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Signal word

Warning

Hazard statement(s)

H319	Causes serious eye irritation.	
H336	lay cause drowsiness or dizziness.	
H411	Toxic to aquatic life with long lasting effects.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H315	Causes skin irritation.	
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.	
H317	May cause an allergic skin reaction.	

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

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 and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physician/first aider/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.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight] Name	
25085-99-8	45-65 bisphenol A/ diglycidyl ether resin, liquid	
100-51-6	5-25	benzyl alcohol
9003-36-5	5-25	phenol/ formaldehyde glycidyl ether copolymer
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

SECTION 4 First aid measures

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 or hair contact occurs: Quickly but gently, wipe material off skin with a dry, clean cloth. Immediately remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
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, without delay.
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 indicate 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 SD

 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.
NOTE, wear a protective grove when inducing volniting by mechanical means.

Indication of any immediate medical attention and special treatment needed

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 r	result
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Advice for firefighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. 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. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) aldehydes other pyrolysis products typical of burning organic material. WARNING: Long standing in contact with air and light may result in the formation of potentially explosive peroxides.
HAZCHEM	•3Z

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	 Environmental hazard - contain spillage. Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety goggles. Trowel up/scrape up. Place spilled material in clean, dry, sealed container. Flush spill area with water.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services. Environmental hazard - contain spillage.

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

SECTION 7 Handling and storage

Precautions for safe handling Safe handling	 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. DO NOT enter contact humans, exposed food or food utensils. 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. Launder contaminated clothing before re-use. 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 are maintained.
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 cross contamination between the two liquid parts of product (kit). If two part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur. This excess heat may generate toxic vapour Avoid reaction with amines, mercaptans, strong acids and 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

Not Available

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
benzyl alcohol	30 ppm	52 ppm		740 ppm
Ingredient	Original IDLH		Revised IDLH	
bisphenol A/ diglycidyl ether resin, liquid	Not Available		Not Available	
benzyl alcohol	Not Available		Not Available	
phenol/ formaldehyde glycidyl ether copolymer	Not Available		Not Available	
Occupational Exposure Banding	9			
Ingredient	Occupational Exposure Band Rating		Occupational Exposure Band Limit	
bisphenol A/ diglycidyl ether resin, liquid	E		≤ 0.1 ppm	

Ingredient	Occupational Exposure Band Rating		xposure Band Limit		
benzyl alcohol	E	≤ 0.1 ppm			
phenol/ formaldehyde glycidyl ether copolymer	E	≤ 0.1 ppm			
Notes:	Occupational exposure banding is a process of assigning of adverse health outcomes associated with exposure. The or range of exposure concentrations that are expected to prot	utput of this process is an occupat			
xposure controls					
	Engineering controls are used to remove a hazard or place be highly effective in protecting workers and will typically by The basic types of engineering controls are: Process controls which involve changing the way a job acti Enclosure and/or isolation of emission source which keeps 'adds' and 'removes' air in the work environment. Ventilatio ventilation system must match the particular process and c Employers may need to use multiple types of controls to pr General exhaust is adequate under normal operating cond overexposure exists, wear approved respirator. Correct fit i or closed storage areas. Air contaminants generated in the velocities' of fresh circulating air required to effectively removed Type of Contaminant:	a independent of worker interaction vity or process is done to reduce t a selected hazard 'physically' awa n can remove or dilute an air conta hemical or contaminant in use. event employee overexposure. titons. Local exhaust ventilation ma s essential to obtain adequate pro workplace possess varying 'escap	ns to provide this high level he risk. ay from the worker and venti aminant if designed properly ay be required in specific cir tection. Provide adequate ve	of protection. lation that strategically . The design of a cumstances. If risk of entilation in warehouse	
				0.25-0.5 m/s	
	solvent, vapours, degreasing etc., evaporating from tank ((in still air).		(50-100 f/min)	
A	aerosols, fumes from pouring operations, intermittent con drift, plating acid fumes, pickling (released at low velocity		ransfers, welding, spray	0.5-1 m/s (100-200 f/min.)	
Appropriate engineering controls	generation into zone of rapid air motion)	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)			
	grinding, abrasive blasting, tumbling, high speed wheel ge very high rapid air motion).	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			
Personal protection	with the square of distance from the extraction point (in sim accordingly, after reference to distance from the contamina 1-2 m/s (200-400 f/min) for extraction of solvents generated producing performance deficits within the extraction appare more when extraction systems are installed or used.	ting source. The air velocity at the d in a tank 2 meters distant from th	extraction fan, for example, ne extraction point. Other me	should be a minimum chanical consideratio	
Eye and face protection	 Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact the wearing of lenses or restrictions on use, should be and adsorption for the class of chemicals in use and ar their removal and suitable equipment should be readily remove contact lens as soon as practicable. Lens shou a clean environment only after workers have washed h national equivalent] 	created for each workplace or tash a account of injury experience. Me vavailable. In the event of chemica and be removed at the first signs of	k. This should include a revi dical and first-aid personnel al exposure, begin eye irriga eye redness or irritation - le	ew of lens absorption should be trained in tion immediately and ns should be removed	
Skin protection	See Hand protection below				

	 Poor glove material degradation Gloves should be tested against each resin system prior to making a selection of the most suitable type. Systems include both the resin and any hardener, individually and collectively) DO NOT use cotton or leather (which absorb and concentrate the resin), natural rubber (latex), medical or polyethylene gloves (which absorb the resin). DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use. Replacement time should be considered when selecting the most appropriate glove. It may be more effective to select a glove with lower chemical resistance but which is replaced frequently than to select a more resistant glove which is reused many times
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Respiratory protection

equivalent)

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:

Altex Epoxy Glue Part A

Material	СРІ
BUTYL	A
VITON	A

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as 'feel' or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance			
Physical state	Free-flowing Paste	Relative density (Water = 1)	1.16
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	300
pH (as supplied)	5	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	251	Taste	Not Available
Evaporation rate	Not Available BuAC = 1	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	0.082	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	>1	VOC g/L	232.00

SECTION 10 Stability and reactivity

Reactivity See section 7

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

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

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 in	ECTION 11 Toxicological information			
Information on toxicological ef	fects			

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. There is strong evidence to suggest that this material can cause, if inhaled once, serious, irreversible damage of organs. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo. There is strong evidence to suggest that this material, on a single contact with skin, can cause serious, irreversible damage of organs.				
Ingestion	Strong evidence exists that exposure to the material may cause irreversible damage (other than cancer, mutations and birth defects) following a single exposure by swallowing. 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. At sufficiently high doses the material may be hepatotoxic (i.e. poisonous to the liver). At sufficiently high doses the material may be nephrotoxic (i.e. poisonous to the kidney). The material has NOT been classified by EC Directives or other classification systems as 'harmful by ingestion'. This is because of the lack of corroborating animal or human evidence.				
Skin Contact	There is strong evidence to suggest that this material, on a single contact with skin, can cause serious, irreversible damage of organs. The material may accentuate any pre-existing dermatitis condition 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. 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.				
Eye	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. 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.				
Chronic	Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. 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. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.				
Altex Epoxy Glue Part A					
	Not Available Not Available				
	ΤΟΧΙCITY			IRRITATION	
bisphenol A/ diglycidyl ether	dermal (rat) LD50: >1200 mg/kg ^[2]			Eye (rabbit): 100mg - Mild	
resin, liquid	d Oral (Mouse) LD50; >500 mg/kg ^[2]				
	ΤΟΧΙCΙΤΥ	IRI	RITATION		
			e (rabbit): 0.	bbit): 0.75 mg open SEVERE	
have deleted	Inhalation(Rat) LC50: >4.178 mg/L4h ^[1] Eye: adver		e: adverse e	verse effect observed (irritating) ^[1]	
benzyl alcohol	Oral (Rat) LD50; 1230 mg/kg ^[2]	Oral (Rat) LD50; 1230 mg/kg ^[2] Skin (man): 1		mg/48h-mild	
		Skin (rabbit):) mg/24h open-mild	
		Sk	in: no advers	se effect observed (not irritating) ^[1]	
	ΤΟΧΙΟΙΤΥ	IRRITAT	ION		
phenol/ formaldehyde glycidyl ether copolymer	dermal (rat) LD50: >400 mg/kg ^[2]	Eye: no	adverse effe	ct observed (not irritating) ^[1]	
etter copolymer					

	Oral (Rat) LD50; >5000 mg/kg ^[2] Skin: adverse effect observed (irritating) ^[1]
Legend:	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances
Altex Epoxy Glue Part A	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, bestrogen-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 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 androstenedine, although relatively weak androgens, are responsible for the androgenic effects of adrenarche, such as early pubic and axillary hair growth, adult-type body odor, increased oiliness of hair and skin, and mild acne.
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 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.
BENZYL ALCOHOL	Unlike benzylic alcohols, the beta-hydroxyl group of the members of benzyl alkyl alcohols contributes to break down reactions but do not undergo phase II metabolic activation. Though structurally similar to cancer causing ethyl benzene, phenethyl alcohol is only of negligible concern due to limited similarity in their pattern of activity. For benzoates: Benzyl alcohol, benzoic acid and its sodium and potassium salt have a common metabolic and excretion pathway. All but benzyl alcohol are considered to be unharmful and of low acute toxicity. They may cause slight irritation by oral, dermal or inhalation exposure except sodium benzoate which doesn't irritate the skin. Studies showed increased mortality, reduced weight gain, liver and kidney effects at higher doses, also, lesions of the brains, thymus and skeletal muscles may occur with benzyl alcohol. However, they do not cause cancer, genetic or reproductive toxicity. Developmental toxicity may occur but only at maternal toxic level. This is a member or analogue of a group of benzyl derivatives generally regarded as safe (GRAS), based partly on their self-limiting properties as flavouring substances in food. In humans and other animals, they are rapidly absorbed, broken down and excreted, with a wide safety margin. They also lack significant potential to cause genetic toxicity and mutations. The intake of benzyl derivatives as natural components of traditional foods is actually higher than the intake as intentionally added flavouring substances. The aryl alkyl alcohol (AAA) fragrance ingredients have diverse chemical structures, with similar metabolic and toxicity profiles. The AAA fragrances demonstrate low acute and subchronic toxicity by skin contact and swallowing. At concentrations likely to be encountered by consumers, AAA fragrance ingredients are non-irritating to the skin. The potential for eye irritation is minimal. With the exception of benzyl alcohol, phenethyl and 2-phenoxyethyl AAA alcohols, testing in humans indicate that AAA fragrance ingredients
PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER	The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
Altex Epoxy Glue Part A & BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID & BENZYL ALCOHOL & PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER	The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.
Altex Epoxy Glue Part A & BENZYL ALCOHOL	Adverse reactions to fragrances in perfumes and fragranced cosmetic products include allergic contact dermatitis, irritant contact dermatitis, sensitivity to light, immediate contact reactions, and pigmented contact dermatitis. Airborne and connubial contact dermatitis occurs. Contact allergy is a lifelong condition, so symptoms may occur on re-exposure. Allergic contact dermatitis can be severe and widespread, with significant impairment of quality of life and potential consequences for fitness for work. If the perfume contains a sensitizing component, intolerance to perfumes by inhalation may occur. Symptoms may include general unwellness, coughing, phlegm, wheezing, chest tightness, headache, shortness of breath with exertion, acute respiratory illness, hayfever, asthma and other respiratory diseases. Perfumes can induce excess reactivity of the airway without producing allergy or airway obstruction. Breathing through a carbon filter mask had no protective effect. Occupational asthma caused by perfume substances, such as isoamyl acetate, limonene, cinnamaldehyde and benzaldehyde, tend to give persistent symptoms, even though the exposure is below occupational exposure limits. Prevention of contact sensitization to fragrances is an important objective of public health risk management. Hands: Contact sensitization may be the primary cause of hand eczema or a complication of irritant or atopic hand eczema. However hand eczema is a disease involving many factors, and the clinical significance of fragrance contact allergy in severe, it may spread down the arms and to other areas of the body. In individuals who consulted a skin specialist, a history of such first-time symptoms was significantly related to the later diagnosis of perfume allergy. Face: An important manifestation of fragrance allergy from the use of cosmetic products is eczema of the face. In men, after-shave products can cause eczema around the beard area and the adjacent part of the neck. Men using wet shaving as opposed to dry have been shown to h

	increased risk of allergic to fragrances. Irritant reactions: Some individual fragrance ingredients, such as citral, are known to be irritant. Fragrances may cause a dose-related contact urticaria (hives) which is not allergic; cinnamal, cinnamic alcohol and Myroxylon pereirae are known to cause hives, but others, including menthol, vanillin and benzaldehyde have also been reported. Pigmentary anomalies: Type IV allergy is responsible for "pigmented cosmetic dermatitis", referring to increased pigmentation on the face and neck. Testing showed a number of fragrance ingredients were associated, including jasmine absolute, ylang-ylang oil, cananga oil, benzyl salicylate, hydroxycitronellal, sandalwood oil, geraniol and geranium oil. Light reactions: Musk ambrette produced a number of allergic reactions mediated by light and was later banned from use in Europe. Furocoumarins (psoralens) in some plant-derived fragrances have caused phototoxic reactions, with redness. There are now limits for the amount of furocoumarins in fragrances. Phototoxic reactions still occur, but are rare. General/respiratory: Fragrances are volatile, and therefore, in addition to skin exposure, a perfume also exposes the eyes and the nose / airway. It is estimated that 2-4% of the adult population is affected by respiratory or eye symptoms by such an exposure. It is known that exposure to fragrance may exacerbate pre-existing asthma. Asthma-like symptoms can be provoked by sensory mechanisms. A significant association was found between respiratory complaints related to fragrances and contact allergy to fragrance ingredients and hand eczema. Fragrance allergens act as haptens, low molecular weight chemicals that cause an immune response only when attached to a carrier protein. However, not all sensitization, but is transformed into a hapten in the skin (bioactivation), usually via enzyme catalysis. It is not always possible to know whether a particular allergen that is not directly reactive acts as a prehapten or a prohapten				
Altex Epoxy Glue Part A & BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID	Animal testing over 13 weeks showed bisphenol A diglycidyl ether (BADGE) caused mild to moderate, chronic, inflammation of the skin. Reproductive and Developmental Toxicity: Animal testing showed BADGE given over several months caused reduction in body weight but had no reproductive effects. Cancer-causing potential: It has been concluded that bisphenol A diglycidyl ether cannot be classified with respect to its cancer-causing potential in humans. Genetic toxicity: Laboratory tests on genetic toxicity of BADGE have so far been negative. Immunotoxicity: Animal testing suggests regular injections of diluted BADGE may result in sensitization. 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.				
Altex Epoxy Glue Part A & BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID & PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER	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 BPA derivatives are required for these hormonal activities, and substituents at the 3,5-positions of the phenyl rings and the bridging alkyl moiety markedly influence the activities. Bisphenols promoted cell proliferation and increased the synthesis and secretion of cell type-specific proteins. When ranked by proliferative potency, the longer the alkyl substituent at the bridging carbon. Bisphenols with two hydroxyl groups in the para position and an angular configuration are suitable for appropriate hydrogen bonding to the acceptor site of the oestrogen receptor. 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 Z (BPAP), bisphenol B (BPB), tetrachlorobisphenol A (TCBPA), and benzylparaben (PHBB) induced estrogen 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) selectively inhibited ERalpha-mediated activity.				
BENZYL ALCOHOL & PHENOL/ FORMALDEHYDE GLYCIDYL ETHER COPOLYMER	None of the BPs induced AR-mediated activity. The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.				
Acute Toxicity	×	Carcinogenicity	×		
Skin Irritation/Corrosion	×	Reproductivity	✓		
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×		
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	*		
Mutagenicity	×	Aspiration Hazard	×		

SECTION 12 Ecological information

Altex Epoxy Glue Part A	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
sphenol A/ diglycidyl ether	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	~2mg/l	2
enol A/ dialvcidvl ether					
enol A/ diglycidyl ether resin, liquid	EC50(ECx)	24h	Crustacea	3mg/l	Not Available

Legend:

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

Endpoint	Test Duration (hr)	Species		Value	Source
EC50	72h	Algae or other aquatic plar	nts	500mg/l	2
EC50	48h	Crustacea		230mg/l	2
NOEC(ECx)	336h	Fish		5.1mg/l	2
LC50	96h	Fish		10mg/l	2
EC50	96h	Algae or other aquatic plants		76.828mg/l	2
Endpoint	Test Duration (hr)	Species	Value	Sou	rce
Not Available	Not Available	Not Available	Not Available	Not	Available
	UCLID Toxicity Data 2. Europe EC	Not Available			wandble
	EC50 EC50 NOEC(ECx) LC50 EC50 Endpoint Not Available	EC50 72h EC50 48h NOEC(ECx) 336h LC50 96h EC50 96h	EC50 72h Algae or other aquatic plan EC50 48h Crustacea NOEC(ECx) 336h Fish LC50 96h Fish EC50 96h Algae or other aquatic plan	EC50 72h Algae or other aquatic plants EC50 48h Crustacea NOEC(ECx) 336h Fish LC50 96h Fish EC50 96h Algae or other aquatic plants EC50 96h Algae or other aquatic plants	EC50 72h Algae or other aquatic plants 500mg/l EC50 48h Crustacea 230mg/l NOEC(ECx) 336h Fish 5.1mg/l LC50 96h Fish 10mg/l EC50 96h Algae or other aquatic plants 76.828mg/l Ec50 96h Algae or other aquatic plants 76.828mg/l

- Bioconcentration Data 8. Vendor Data

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
bisphenol A/ diglycidyl ether resin, liquid	HIGH	HIGH
benzyl alcohol	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
bisphenol A/ diglycidyl ether resin, liquid	LOW (LogKOW = 2.6835)
benzyl alcohol	LOW (LogKOW = 1.1)

Mobility in soil

Ingredient	Mobility
bisphenol A/ diglycidyl ether resin, liquid	LOW (KOC = 51.43)
benzyl alcohol	LOW (KOC = 15.66)

SECTION 13 Disposal considerations

Waste treatment methods	 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. Removal of bisphenol A (BPA) from aqueous solutions was accomplished by adsorption of enzymatically generated quinone derivatives on chitosan beads. The use of chitosan in the form of beads was found to be more effective because heterogeneous removal of BPA with chitosan beads was much faster than homogeneous removal of BPA with chitosan solutions, and the removal efficiency was enhanced by increasing the amount of chitosan beads dispersed in the BPA solutions and BPA was completely removed by quinone adsorption in the presence of chitosan beads more than 0.10 cm3/cm3. In addition, a variety of bisphenol derivatives were completely or effectively removed by the procedure constructed in this study, although the enzyme dose or the amount of chitosan beads was further increased as necessary for some of the bisphenol derivatives used. M. Suzuki, and E Musashi J Appl Polym Sci, 118(2):721 - 732; October 2010 DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to 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.
	Recycle wherever possible or consult manufacturer for recycling options.

SECTION 14 Transport information

Marine Pollutant	
HAZCHEM	•3Z

Land transport (ADG)

UN number	3082		
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
Transport hazard class(es)	Class 9 Subrisk Not Applicable		
Packing group	II		
Environmental hazard	Environmentally hazardous		
Special precautions for user	Special provisions274 331 335 375 AU01Limited quantity5 L		

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in; (a) packagings; (b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).
Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

Air transport (ICAO-IATA / DGR)

transport (ICAO-IATA / DGF	.,			
UN number	3082			
UN proper shipping name	Environmentally hazardo	ous substance, liquid, n.o.s.		
	ICAO/IATA Class	9		
Transport hazard class(es)	ICAO / IATA Subrisk	Not Applicable		
	ERG Code	9L		
Packing group	Ш			
Environmental hazard	Environmentally hazardous			
Special precautions for user	Special provisions		A97 A158 A197 A215	
	Cargo Only Packing Instructions		964	
	Cargo Only Maximum Qty / Pack		450 L	
	Passenger and Cargo Packing Instructions		964	
	Passenger and Cargo Maximum Qty / Pack		450 L	
	Passenger and Cargo Limited Quantity Packing Instructions		Y964	
	Passenger and Cargo	Limited Maximum Qty / Pack	30 kg G	

Sea transport (IMDG-Code / GGVSee)

UN number	3082	3082		
UN proper shipping name	ENVIRONMENTALLY	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
Transport hazard class(es)				
Packing group	II			
Environmental hazard	Marine Pollutant			
Special precautions for user	EMS Number Special provisions Limited Quantities	F-A, S-F 274 335 969 5 L		

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

Group

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

Product name

Product name	Group
bisphenol A/ diglycidyl ether resin, liquid	Not Available
benzyl alcohol	Not Available
phenol/ formaldehyde glycidyl ether copolymer	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
bisphenol A/ diglycidyl ether resin, liquid	Not Available
benzyl alcohol	Not Available
phenol/ formaldehyde glycidyl ether copolymer	Not Available

SECTION 15 Regulatory information

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

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)

benzyl alcohol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

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

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

Australian Inventory of Industrial Chemicals (AIIC)

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

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (bisphenol A/ diglycidyl ether resin, liquid; benzyl alcohol; phenol/ formaldehyde glycidyl ether copolymer)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (phenol/ formaldehyde glycidyl ether copolymer)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	Yes	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	
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	26/10/2022
Initial Date	24/10/2017

SDS Version Summary

Version	Date of Update	Sections Updated	
4.11	26/10/2022	Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Appearance, Chronic Health, Classification, Disposal, Environmental, Exposure Standard, First Aid (inhaled), First Aid (skin), First Aid (swallowed), Physical Properties, Supplier Information, Use	

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.

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit_\circ IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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Resene Paints (Australia) Limited

Version No: 6.10

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Chemwatch Hazard Alert Code: 4

Issue Date: 26/10/2022 Print Date: 26/10/2022 S.GHS.AUS.EN

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

Product Identifier

Product name	Altex Epoxy Glue Part B		
Synonyms	Not Available		
Proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)		
Other means of identification	Not Available		

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

Relevant identified uses

Part B of a two pack industrial epoxy glue

Details of the manufacturer or supplier of the safety data sheet

Registered company name	Resene Paints (Australia) Limited Altex Coatings Ltd		
Address	7 Production Avenue, Molendinar Queensland 4214 Australia 91-111 Oropi Road Tauranga 3112 New Zealand		
Telephone	+61 7 55126600 +64 7 541 1221		
Fax	+61 7 55126697 +64 7 541 1310		
Website	www.resene.com.au	www.altexcoatings.com	
Email	Not Available	neil.debenham@carboline.co.nz	

Emergency telephone number

Association / Organisation	AUSTRALIAN POISONS CENTRE	NZ POISONS (24hr 7 days)	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	131126	0800 764766	+61 1800 951 288
Other emergency telephone numbers	Not Available	Not Available	+61 3 9573 3188

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

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGER	ROUS GOODS. According to the WHS Regulations and the ADG Code.		
Poisons Schedule	Not Applicable		
Classification ^[1]	Skin Corrosion/Irritation Category 1C, Reproductive Toxicity Category 1A, Acute Toxicity (Dermal) Category 4, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Inhalation) Category 4, Acute Toxicity (Oral) Category 4, Sensitisation (Skin) Category 1, Specific Target Organ Toxicity - Repeated Exposure Category 1, Hazardous to the Aquatic Environment Long-Term Hazard Category 3		
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI		

Label elements

Hazard pictogram(s)

Hazard statement(s)

Signal word

Danger

H314	Causes severe skin burns and eye damage.
H360	May damage fertility or the unborn child.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.

H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention	
P260	Do not breathe mist/vapours/spray.
P264	Wash all exposed external body areas thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P310	Immediately call a POISON CENTER/doctor/physician/first aider.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P363	Wash contaminated clothing before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
2855-13-2	45-60	isophorone diamine
32610-77-8	20-30	formaldehyde/ phenol/ triethylenetetramine copolymer
112-24-3	5-10	triethylenetetramine
108-95-2	5-10	phenol
Legend: 1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available		

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.

Altex	Epoxy	Glue	Part B
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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, without delay. Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema. Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs). As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested. Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

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
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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 fire fighting procedures suitable for surrounding area. 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. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	Combustible. Will burn if ignited. Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) aldehydes nitrogen oxides (NOx) other pyrolysis products typical of burning organic material. May emit corrosive fumes.
HAZCHEM	2X

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing vapours/ aerosols/ or dusts and avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Place in a suitable, labelled container for waste disposal. Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks.
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Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Stop leak if safe to do so. Contain spill with sand, earth or verniculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.
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Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with moisture. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Safe handling 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. Launder contaminated clothing before re-use. 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 are maintained. Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Other information Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS. DO NOT store near acids, or oxidising agents No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT use aluminium or galvanised containers For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids (between 15 C deg. and 40 deg C.): Removable head packaging; Cans with friction closures and low pressure tubes and cartridges may be used.
Storage incompatibility	 Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air. Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid contact with copper, aluminium and their alloys. 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

TEEL-1

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA						
Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	phenol	Phenol	1 ppm / 4 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
triethylenetetramine	3 ppm	14 ppm		83 ppm
phenol	Not Available	Not Available		Not Available
Ingredient	Original IDLH		Revised IDLH	
isophorone diamine	Not Available		Not Available	
formaldehyde/ phenol/ triethylenetetramine copolymer	Not Available		Not Available	
triethylenetetramine	Not Available		Not Available	
phenol	250 ppm		Not Available	
Occupational Exposure Banding	I			
Ingredient	Occupational Exposure Band Rating		Occupational Expos	sure Band Limit
isophorone diamine	D	D		
formaldehyde/ phenol/ triethylenetetramine copolymer	D		> 0.1 to ≤ 1 ppm	
triethylenetetramine	E		≤ 0.1 ppm	
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands bas		nds 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 be highly effective in protecting workers and will typically be The basic types of engineering controls are: Process controls which involve changing the way a job acti Enclosure and/or isolation of emission source which keeps 'adds' and 'removes' air in the work environment. Ventilatio ventilation system must match the particular process and c Employers may need to use multiple types of controls to pr Local exhaust ventilation usually required. If risk of overexp protection. Supplied-air type respirator may be required in s An approved self contained breathing apparatus (SCBA) m Provide adequate ventilation in warehouse or closed storag velocities which, in turn, determine the 'capture velocities' of	e independent of worker interactions to pr vity or process is done to reduce the risk. a selected hazard 'physically' away from n can remove or dilute an air contaminant hemical or contaminant in use. event employee overexposure. posure exists, wear approved respirator. C special circumstances. Correct fit is esser ay be required in some situations. ge area. Air contaminants generated in the	ovide this high level of protection. the worker and ventilation that strated if designed properly. The design of a correct fit is essential to obtain adequa tial to ensure adequate protection. e workplace possess varying 'escape'	gically a ate
	Type of Contaminant:		Air Speed:	
	solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)			0-200
Appropriate engineering controls	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)			0-500
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).			nin.)
	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 point, 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. CARE: Use of a quantity of this material in confined space or poorly ventilated area, where rapid build up of concentrated atmosphere may occur, could require increased ventilation and/or protective gear			
Personal protection				

- Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.
- Eye and face protection
- Chemical goggles whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.
 Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.

	 Alternatively a gas mask may replace splash goggles and face shields. 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], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	 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. When handling liquid-grade epoxy resins wear chemically protective gloves , boots and aprons. The performance, based on breakthrough times ,of: Ethyl Vinyl Alcohol (EVAL laminate) is generally excellent Butyl Rubber ranges from excellent to good Nitrile Butyl Rubber (NBR) from excellent to fair. Neoprene from excellent to fair Polyvinyl (PVC) from excellent to poor As defined in ASTM F-739-96 Excellent breakthrough time > 20 min Good breakthrough time < 20 min Fair breakthrough time < 20 min Poor glove material degradation Gloves should be tested against each resin system prior to making a selection of the most suitable type. Systems include both the resin and any hardener, individually and collectively) DO NOT use cotton or leather (which absorb and concentrate the resin), natural rubber (latex), medical or polyethylene gloves (which absorb the resin). DO NOT use barrier creams containing emulsified fats and oils as these may absorb the resin; silicone-based barrier creams should be reviewed prior to use. Replacement time should be considered when selecting the most appropriate glove. It may be more effective to select a glove with lower chemical resistance but which is replaced frequently than to select a more resistant glove which is reused many times
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower.

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:

Altex Epoxy Glue Part B

Material	CPI
BUTYL	А
NEOPRENE	А
PE/EVAL/PE	А
VITON	А
BUTYL/NEOPRENE	C
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	C
NATURAL+NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
PVA	С
PVC	С
TEFLON	С
VITON/NEOPRENE	С

* CPI - (Chemwatch	Performance	Index
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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.

Respiratory protection

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

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

* - Negative pressure demand ** - Continuous flow

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical	and chemical properties		
Appearance	Amber paste		
Physical state	Free-flowing Paste	Relative density (Water = 1)	1.00
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	300
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	10	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	247	Molecular weight (g/mol)	Not Available
Flash point (°C)	110	Taste	Not Available
Evaporation rate	Not Available BuAC = 1	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	0.082	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (Not Available%)	Not Available
Vapour density (Air = 1)	>1	VOC g/L	0

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	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Inhalation hazard is increased at higher temperatures. Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful.
Ingestion	The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum. 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.
Skin Contact	Skin contact with the material may be harmful; systemic effects may result following absorption. Volatile amine vapours produce irritation and inflammation of the skin. Direct contact can cause burns. 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. The material can produce chemical burns following direct contact with the skin.
Eye	If applied to the eyes, this material causes severe eye damage. The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area. The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

1

Altex Epoxy Glue Part B

Chronic	Studies show that inhaling this substance for over a long period (e.g. in an occupational setting) may increase the risk of cancer. Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Based on experiments and other information, there is ample evidence to presume that exposure to this material can cause genetic defects that can be inherited. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. 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 exists that this material directly causes reduced fertility Ample evidence exists that developmental disorders are directly caused by human exposure to the material. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.
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Altex Epoxy Glue Part B	TOXICITY	IRRITA	TION		
Allex Epoxy Glue Fait D	Not Available	Not Ava	Not Available		
	ΤΟΧΙΟΙΤΥ			IRRITATION	
iaankanana diamina	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available			
isophorone diamine	Inhalation(Rat) LC50: >=1.07<=5.01 mg/l4h ^[1]				
	Oral (Rat) LD50; 1030 mg/kg ^[2]				
	ТОХІСІТҮ	IRRI	TATION		
formaldehyde/ phenol/ triethylenetetramine copolymer	Oral (Rat) LD50; >2200 mg/kg ^[2]	Eye	(rabbit): Severe		
		Skin	(rabbit): Moderate irritant		
	ΤΟΧΙΟΙΤΥ	IRRITATION			
	Dermal (rabbit) LD50: 805 mg/kg ^[2]	Eye (rab			
triethylenetetramine	Oral (Rat) LD50; 2500 mg/kg ^[2]	Eye (rabbit); 49 mg - SEVERE			
		Skin (rabbit): 490 mg open SEV		<u> </u>	
		Skin (rab	bit): 5 mg/24 SEVERE		
	TOXICITY	IRF	ITATION		
	Dermal (rabbit) LD50: 850 mg/kg ^[2]	Eye	e(rabbit): 100 mg rinse - mile	d	
phenol	Inhalation(Mouse) LC50; 0.177 mg/L4h ^[2]	Eye	e(rabbit): 5 mg - SEVERE	ERE	
	Oral (Rat) LD50; 317 mg/kg ^[2]	Ski	n(rabbit): 500 mg open -SE	VERE	
		Ski	n(rabbit): 500 mg/24hr - SE	VERE	
Legend:	1. Value obtained from Europe ECHA Registered Substa	nces - Acute toxicity 2. V	alue obtained from manufa	cturer's SDS_Unless other	

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	×	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	✓
Mutagenicity	×	Aspiration Hazard	×
		_ogo	ot available or does not fill the criteria for classification

Id: X − Data either not available or does not un ✓ − Data available to make classification

SECTION 12 Ecological information

Altex Epoxy Glue Part B	Endpoint	Test Duration (hr)		Species	Value		Source
	Not Available	Not Available		Not Available	Not Availab	le	Not Available
isophorone diamine	Endpoint BCF	Test Duration (hr)	Speci Fish	Species		Value	Sourc
	EC50	72h		Algae or other aquatic plants		37mg/l	1
	EC50	48h	Crusta	Crustacea		14.6-21.5mg	g/l 4
	NOEC(ECx)	72h	Algae	or other aquatic plants		1.5mg/l	1

formaldehyde/ phenol/	Endpoint		Test Duration (hr)	Species	Value		Sour	ce
triethylenetetramine copolymer	Not Available		Not Available		Not Available	Not Availa	ble	Not A	vailable
	Endpoint	Te	est Duration (hr)		Species		Valu	e	Source
triethylenetetramine	BCF	1(008h	F	Fish		<0.5		7
	EC50	72	2h	1	Algae or other aquatic plants		2.5m	ıg/l	1
	EC50	48	48h		Crustacea		31.1	mg/l	1
	ErC50	72	72h		Algae or other aquatic plants		2.5m	ıg/l	1
	EC10(ECx)	72	2h	1	Algae or other aquatic plants		0.67	mg/l	1
	LC50	96	δh	F	Fish		180r	ng/l	1
	Endpoint	Test	Duration (hr)	Specie	s	Val	ue		Source
	EC50(ECx)	36h		Fish 0.		0.0	008mg/L		4
	LC50	96h	16h Fis		Fish		2.809-5.554mg/L		4
phenol	EC50	96h	96h Algae		lgae or other aquatic plants		10.6mg/L		4
	EC50	72h	72h Alga		gae or other aquatic plants		48.937-57.407mg/L		4
	EC50	48h		Crusta	cea	3.1	mg/l		1

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites. Prevent, by any means available, spillage from entering drains or water courses.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
isophorone diamine	HIGH	HIGH
triethylenetetramine	LOW	LOW
phenol	LOW (Half-life = 10 days)	LOW (Half-life = 0.95 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
isophorone diamine	LOW (BCF = 3.4)
triethylenetetramine	LOW (BCF = 5)
phenol	LOW (BCF = 17.5)

Mobility in soil

Ingredient	Mobility
isophorone diamine	LOW (KOC = 340.4)
triethylenetetramine	LOW (KOC = 309.9)
phenol	LOW (KOC = 268)

SECTION 13 Disposal considerations

Waste treatment methods	
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. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to 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. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurrying in water; Neutralisation followed by: burial

	 in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material) Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
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SECTION 14 Transport information

Labels Required



HAZCHEM 2X

Land transport (ADG)

1 ,	
UN number	3066
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Transport hazard class(es)	Class 8 Subrisk Not Applicable
Packing group	III
Environmental hazard	Not Applicable
Special precautions for user	Special provisions163 223 367Limited quantity5 L

Air transport (ICAO-IATA / DGR)

UN number	3066					
UN proper shipping name		Paint related material corrosive (including paint thinning or reducing compounds); Paint corrosive (including paint, lacquer, enamel, stain, shellac rarnish, polish, liquid filler and liquid lacquer base)				
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	8 Not Applicable 8L				
Packing group	111	 I				
Environmental hazard	Not Applicable	Not Applicable				
	Special provisions Cargo Only Packing Instructions		A3 A72 A192 A803 856			
	Cargo Only Maximum Qty / Pack		60 L			
Special precautions for user	Passenger and Cargo Packing Instructions		852			
	Passenger and Cargo Maximum Qty / Pack		5 L			
	Passenger and Cargo	Limited Quantity Packing Instructions	Y841			
	Passenger and Cargo	Limited Maximum Qty / Pack	1 L			

Sea transport (IMDG-Code / GGVSee)

UN number	3066
UN proper shipping name	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound)
Transport hazard class(es)	IMDG Class 8 IMDG Subrisk Not Applicable
Packing group	Ш
Environmental hazard	Not Applicable
Special precautions for user	EMS NumberF-A, S-BSpecial provisions163 223 367Limited Quantities5 L

Transport in bulk according to Annex II of MARPOL and the IBC code Not Applicable

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

Product name	Group
isophorone diamine	Not Available
formaldehyde/ phenol/ triethylenetetramine copolymer	Not Available
triethylenetetramine	Not Available
phenol	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
isophorone diamine	Not Available
formaldehyde/ phenol/ triethylenetetramine copolymer	Not Available
triethylenetetramine	Not Available
phenol	Not Available

SECTION 15 Regulatory information

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

isophorone diamine 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

formaldehyde/ phenol/ triethylenetetramine copolymer is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

triethylenetetramine 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 4 $\,$

phenol 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 2

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

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

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

Australian Inventory of Industrial Chemicals (AIIC)

Australian Inventory of Industrial Chemicals (AIIC)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule ${\bf 6}$

Australian Inventory of Industrial Chemicals (AIIC)

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

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (formaldehyde/ phenol/ triethylenetetramine copolymer; triethylenetetramine; phenol)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (formaldehyde/ phenol/ triethylenetetramine copolymer)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (formaldehyde/ phenol/ triethylenetetramine copolymer)	
Vietnam - NCI	No (formaldehyde/ phenol/ triethylenetetramine copolymer)	
Russia - FBEPH	No (formaldehyde/ phenol/ triethylenetetramine copolymer)	
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	26/10/2022
Initial Date	30/05/2018

Version	Date of Update	Sections Updated
5.10	26/10/2022	Acute Health (eye), Acute Health (inhaled), Acute Health (skin), Acute Health (swallowed), Advice to Doctor, Chronic Health, Classification, Exposure Standard, Personal Protection (Respirator), Personal Protection (eye), Physical Properties, Storage (storage incompatibility), Supplier Information, Use

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.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted Average PC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit。 IDLH: Immediately Dangerous to Life or Health Concentrations ES: Exposure Standard OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index AIIC: Australian Inventory of Industrial Chemicals DSL: Domestic Substances List NDSL: Non-Domestic Substances List IECSC: Inventory of Existing Chemical Substance in China EINECS: European INventory of Existing Commercial chemical Substances ELINCS: European List of Notified Chemical Substances NLP: No-Longer Polymers ENCS: Existing and New Chemical Substances Inventory KECI: Korea Existing Chemicals Inventory NZIoC: New Zealand Inventory of Chemicals PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act TCSI: Taiwan Chemical Substance Inventory INSQ: Inventario Nacional de Sustancias Químicas NCI: National Chemical Inventory FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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