



Tradesmans Warehouse High Solids Epoxy Part A

Version No: 2.1.1.1
 Safety Data Sheet according to WHS and ADG requirements
 Issue Date: 11th April 2018

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

Product Identifier

Product name	Tradesmans Warehouse High Solids Epoxy Part A
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A/ diglycidyl ether resin, liquid)
Other means of Identification	Not Available

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

Relevant identified uses	Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. Do not return the mixed material to the original containers Base component of epoxy floor coating.
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Details of the supplier of the safety data sheet

Registered company name	Tradesmans Warehouse Pty Ltd
Address	4A Progress Street, Yatala Qld 4207 Australia
Telephone	+ 61 7 3297 4444
Fax	+61 7 3807 2030
Website	Not available
Email	Not available

Emergency telephone number

Association / Organisation	Tradesmans Warehouse 24/7
Emergency telephone numbers	1800 204 607
Other emergency telephone numbers	Not Available

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammability	1
Toxicity	1
Body Contact	2
Reactivity	1
Chronic	2

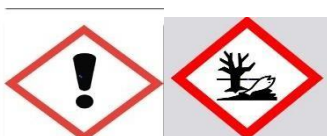
0 = Minimum
 1 = Low
 2 = Moderate
 3 = High
 4 = Extreme

Poisons Schedule	S5
Classification [1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1, Acute Aquatic Hazard Category 2, Chronic Aquatic Hazard Category 2

Legend	1. Classified by Tradesmans Warehouse ; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
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Label elements

Hazard pictogram(s)



SIGNAL WORD

WARNING

Hazard statement(s)

H315	Causes skin irritation
H319	Causes serious eye irritation
H317	May cause an allergic skin reaction
H411	Toxic to aquatic life with long lasting effects

Precautionary statement(s) Prevention

P280	Wear protective gloves/protective clothing/eye protection/face protection
P261	Avoid breathing mist/vapours/spray
P273	Avoid release to the environment
P272	Contaminated work clothing should not be allowed out of the workplace

Precautionary statement(s) Response

P362	Take off contaminated clothing and wash before reuse.
P302+P352	IF ON SKIN: Wash with plenty of water
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P337+P313	If eye irritation persists: Get medical advice/attention.
P391	Collect spillage.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	% [weight]	Name
25068-38-6	30-60	Bisphenol A/ diglycidyl ether resin, liquid
55492-52-9	10-29	Bisphenol F/ epichlorohydrin copolymer
		Ecolab Solid Soft Plus
	balance	Ingredients determined not to be hazardous

SECTION 4 FIRST AID MEASURES**Description of first aid measures**

Eye Contact	<p>If this product comes into contact with the eyes:</p> <ul style="list-style-type: none"> ➤ 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 professional.
Skin Contact	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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	<ul style="list-style-type: none"> ➤ 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. being unconscious. ➤ Give water to rinse out mouth

Indication of any immediate medical attention and special treatment needed

Treat symptomatically

SECTION 5 FIREFIGHTING MEASURES**Extinguishing media**

- Wash spray or fog
- Alcohol stable foam
- Dry chemical powder
- Carbon dioxide

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
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Advice for firefighters

Fire Fighting	<p>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.</p>
Fire/Explosion Hazard	<p>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:</p> <ul style="list-style-type: none"> ' carbon dioxide (CO2) ' aldehydes ' other pyrolysis products typical of burning organic material.
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	<ul style="list-style-type: none"> ➤ 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. ➤ If irritating vapors are present, an approved air-purifying respirator with organic vapor canister is recommended for cleaning up spills and leaks. ➤ For small spills, reactive diluents should be absorbed with sand. <p>Environmental hazard - contain spillage.</p> <ul style="list-style-type: none"> ➤ Clean up all spills immediately. ➤ Avoid breathing vapours and 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. ➤ Wipe up. ➤ Place in a suitable, labelled container for waste disposal.
Major Spills	<p>Environmental hazard - contain spillage.</p> <p>Industrial spills or releases of reactive diluents are infrequent and generally contained. If a large spill does occur, the material should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements.</p> <p>An approved air-purifying respirator with organic-vapour canister is recommended for emergency work.</p> <p>Moderate hazard.</p> <ul style="list-style-type: none"> ➤ 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. ➤ No smoking, naked lights or ignition sources.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	<ul style="list-style-type: none"> <input type="checkbox"/> DO NOT allow clothing wet with material to stay in contact with skin <input type="checkbox"/> Avoid all personal contact, including inhalation. <input type="checkbox"/> Wear protective clothing when risk of exposure occurs. <input type="checkbox"/> Use in a well-ventilated area. <input type="checkbox"/> Prevent concentration in hollows and sumps. <input type="checkbox"/> DO NOT enter confined spaces until atmosphere has been checked. <input type="checkbox"/> Avoid smoking, naked lights or ignition sources.
Other information	<ul style="list-style-type: none"> <input type="checkbox"/> Store in original containers. <input type="checkbox"/> Keep containers securely sealed. <input type="checkbox"/> Store in a cool, dry, well-ventilated area. <input type="checkbox"/> Store away from incompatible materials and foodstuff containers. <input type="checkbox"/> Protect containers against physical damage and check regularly for leaks. <input type="checkbox"/> Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable container	<ul style="list-style-type: none"> ➤ Metal can or drum ➤ Packaging as recommended by manufacturer. ➤ Check all containers are clearly labelled and free from leaks
Storage incompatibility	<ul style="list-style-type: none"> <input type="checkbox"/> 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 the manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur. <input type="checkbox"/> This excess heat may generate toxic vapour. <input type="checkbox"/> Avoid reaction with amines, mercaptans, strong acids and oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
bisphenol A/ diglycidyl ether resin, liquid	Epoxy resin includes EPON 1001, 1007, 820, ERL-2795	90 mg/m3	990 mg/m3	5,900 mg/m3

Ingredient	Original IDLH	Revised IDLH
bisphenol A/ diglycidyl ether resin, liquid	Not available	Not available
bisphenol F/ epichlorohydrin copolymer	Not Available	Not Available

Exposure controls

Appropriate engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ➤ Safety glasses with side shields. ➤ Chemical goggles. ➤ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. 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.
Skin protection	See Hand protection below
Hands/feet protection	<p>NOTE:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 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. <input type="checkbox"/> Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. <p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to 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.</p> <p>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.</p> <p>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 dried thoroughly.</p> <ul style="list-style-type: none"> <input type="checkbox"/> When handling liquid-grade epoxy resins wear chemically protective gloves (e.g nitrile or nitrile-butadiene rubber), boots and aprons. <input type="checkbox"/> DO NOT use cotton or leather (which absorb and concentrate the resin), polyvinyl chloride, rubber or polyethylene gloves (which absorb the resin). <input type="checkbox"/> 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.
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ➤ Overalls. ➤ P.V.C. apron. ➤ Barrier cream. ➤ Skin cleansing cream. ➤ Eye wash unit.
Thermal hazards	Not Available

Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	Yellowish liquid with a weak characteristic odour; not miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	1.1
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	950 mPa.s @23C
Initial boiling point and boiling range (°C)	>200	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>150	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	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	<input type="checkbox"/> Unstable in the presence of incompatible materials. <input type="checkbox"/> Product is considered stable. <input type="checkbox"/> 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	<p>Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.</p> <p>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.</p> <p>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.</p>
Ingestion	<p>Accidental ingestion of the material may be damaging to the health of the individual.</p> <p>Animal testing showed that a single dose of bisphenol A diglycidyl ether (BADGE) given by mouth, caused an increase in immature sperm.</p> <p>Reactive diluents exhibit a range of ingestion hazards. Small amounts swallowed incidental to normal handling operations are not likely to cause injury.</p> <p>However, swallowing larger amounts may cause injury.</p> <p>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).</p>
Skin Contact	<p>The material may accentuate any pre-existing dermatitis condition</p> <p>Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.</p> <p>Bisphenol A diglycidyl ether (BADGE) may produce contact dermatitis characterized by redness and swelling, with weeping followed by crusting and scaling.</p> <p>A liquid resin with a molecular weight of 350 produced severe skin irritation when applied daily for 4 hours over 20 days.</p> <p>Skin contact with reactive diluents may cause slight to moderate irritation with local redness. Repeated or prolonged skin contact may cause burns.</p> <p>Open cuts, abraded or irritated skin should not be exposed to this material</p> <p>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.</p>
Eye	<p>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.</p> <p>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.</p>

Chronic	<p>Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.</p> <p>There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.</p> <p>Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.</p> <p>Based on experience with similar materials, there is a possibility that exposure to the material may reduce fertility in humans at levels which do not cause other toxic effects.</p> <p>Bisphenol A diglycidyl ethers (BADGEs) produce a sensitization dermatitis (skin inflammation) characterized by eczema with blisters and papules, with considerable itching of the back of the hand. This may persist for 10-14 days after withdrawal from exposure and recur immediately on re-exposure. The dermatitis may last longer following each exposure, but is unlikely to become more intense. Lower molecular weight species produce sensitization more readily.</p> <p>Animal testing has shown an increase in the development of some tumours.</p> <p>For some reactive diluents, prolonged or repeated skin contact may result in absorption of potentially harmful amounts or allergic skin reactions.</p> <p>Exposure to some reactive diluents (notably, neopentylglycol diglycidyl ether, CAS RN: 17557-23-2) has caused cancer in some animal testing.</p> <p>Bisphenol F, bisphenol A, fluorine-containing bisphenol A (bisphenol AF) and other diphenylalkanes were found to have oestrogen-like effects. Bisphenol F is present in the environment and as a contaminant of food, so humans may therefore be exposed to bisphenol. Testing shows bisphenol F has genetic toxicity as well as the ability to disrupt hormonal balance.</p> <p>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.</p>
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Tradesmans Warehouse High Solids Epoxy	TOXICITY Not Available	IRRITATION Not Available
bisphenol A/ diglycidyl ether resin, liquid	TOXICITY dermal (rat) LD50: >1200 mg/kg[2] Oral (rat) LD50: >1000 mg/kg[2]	IRRITATION Eye (rabbit): 100mg - Mild
bisphenol F/ epichlorohydrin copolymer	TOXICITY dermal (rat) LD50: >400 mg/kg[2] Oral (rat) LD50: >2000 mg/kg[1]	IRRITATION Not Available

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
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Tradesmans Warehouse High Solids Epoxy	<p>Bisphenol A diglycidyl ethers (BADGEs) produce a sensitization dermatitis (skin inflammation) characterized by eczema with blisters and papules, with considerable itching of the back of the hand. This may persist for 10-14 days after withdrawal from exposure and recur immediately on re-exposure. The dermatitis may last longer following each exposure, but is unlikely to become more intense. Lower molecular weight species produce sensitization more readily.</p> <p>Animal testing has shown an increase in the development of some tumours.</p> <p>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.</p> <p>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.</p> <p>For 1,2-butylene oxide (ethyloxirane):</p> <p>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.</p>
BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID	<p>The substance is classified by IARC as Group 3:</p> <p>NOT classifiable as to its Acute toxicity (any route of exposure) to humans.</p> <p>Evidence of Acute toxicity (any route of exposure) may be inadequate or limited in animal testing.</p> <p>Foetotoxicity has been observed in animal studies Oral (rabbit, female) NOEL 180 mg/kg (teratogenicity); NOEL (maternal) 60 mg/kg</p>
BISPHENOL F/ EPICHLOROXYDRIN COPOLYMER	<p>The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>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.</p> <p>Data for liquid polymer, ie for molecular weights generally less than 700 CAUTION: Epoxy resin products may contain sensitising glycidyl ethers, even when these are not mentioned in the information given for the product. Limited animal studies have indicated that bisphenol A diglycidyl ethers may be potential carcinogens. [CISDOC Patty]</p>
Tradesmans Warehouse High Solids Epoxy & BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID & BISPHENOL F/ EPICHLOROXYDRIN COPOLYMER	<p>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.</p>
Tradesmans Warehouse High Solids Epoxy & BISPHENOL F/ EPICHLOROXYDRIN COPOLYMER	No significant acute toxicological data identified in literature search.

Tradesmans Warehouse High Solids Epoxy & 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: Consumer exposure to BADGE is almost exclusively from migration of BADGE from can coatings into food.
Tradesmans Warehouse High Solids Epoxy FEPHS500A & BISPHENOL	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
A/ DIGLYCIDYL ETHER RESIN, LIQUID & BISPHENOL F/ EPICHLOROHYDRIN COPOLYMER	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.

Acute Toxicity	N/A	Acute toxicity (any route of exposure)	<#ToxCatAcute toxicity (any route of exposure)>
Skin Irritation/Corrosion	Yes	Reproductivity	N/A
Serious Eye Damage/Irritation	Yes	STOT - Single Exposure	N/A
Respiratory or Skin sensitisation	Yes	STOT - Repeated Exposure	N/A
Mutagenicity	N/A	Aspiration Hazard	N/A

Legend – Yes - Data available to make classification
N/A - Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Tradesmans Warehouse High Solids Epoxy	Not Available	Not Available	Not Available	Not Available	Not Available
bisphenol A/ diglycidyl ether resin, liquid	LC50 EC50 NOEC	96 72 72	Fish Algae or other aquatic plants Algae or other aquatic plants	1.2mg/L 9.4mg/L 2.4mg/L	2 2 2
bisphenol F/ epichlorohydrin copolymer	EC50 EC50 EC50	96 48 72	Fish Crustacea Algae or other aquatic plants	0.55mg/L 1.6mg/L >1.8mg/L	2 2 2

Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data
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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.

Reactive diluents generally have a low to moderate potential for bioconcentration (tendency to accumulate in the food chain) and a high to very high potential for mobility in soil. Small amounts that escape to the atmosphere will photodegrade.

They would not be expected to persist in the environment.

Most reactive diluents should be considered slightly to moderately toxic to aquatic organisms on an acute basis while some might also be considered harmful to the environment.

For bisphenol A and related bisphenols:

Environmental fate:

Biodegradability (28 d) 89% - Easily biodegradable

Bioconcentration factor (BCF) 7.8 mg/l

Bisphenol A, its derivatives and analogues, can be released from polymers, resins and certain substances by metabolic products

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII

As an environmental contaminant, bisphenol A interferes with nitrogen fixation at the roots of leguminous plants associated with the bacterial symbiont *Sinorhizobium meliloti*. Despite a half-life in the soil of only 1-10 days, its ubiquity makes it an important pollutant. According to Environment Canada, "initial assessment shows that at low levels, bisphenol A can harm fish and organisms over time. Studies also indicate that it can currently be found in municipal wastewater." However, a study conducted in the United States found that 91-98% of bisphenol A may be removed from water during treatment at municipal water treatment plants.

Ecotoxicity:

Fish LC50 (96 h): 4.6 mg/l (freshwater fish); 11 mg/l (saltwater fish); NOEC 0.016 mg/l (freshwater fish- 144 d); 0.064 mg/l (saltwater fish 164 d)

Fresh water invertebrates EC50 (48 h): 10.2 mg/l; NOEC 0.025 mg/l - 328 d)

Marine water invertebrate EC50 (96 h): 1.1 mg/l; NOEC 0.17 mg/l (28 d)

Freshwater algae (96 h): 2.73 mg/l

Marine water algae (96 h): 1.1 mg/l

Fresh water plant EC50 (7 d): 20 mg/l; NOEC 7.8 mg/l

In general, studies have shown that bisphenol A can affect growth, reproduction and development in aquatic organisms.

Among freshwater organisms, fish appear to be the most sensitive species.

Significant environmental findings are limited. Oxiranes (including glycidyl ethers and alkyl oxides, and epoxides) exhibit common characteristics with respect to environmental fate and ecotoxicology. One such oxirane is ethyloxirane and data presented here may be taken as representative.

For 1,2-Butylene oxide (Ethyloxirane):

log Kow values of 0.68 and 0.86. BAF and BCF : 1 to 17 L./kg.

Aquatic Fate - Ethyloxirane is highly soluble in water and has a very low soil-adsorption coefficient, which suggests that, if released to water, adsorption of ethyloxirane to sediment and suspended solids is not expected. Volatilization of ethyloxirane from water surfaces would be expected. Ethyloxirane is hydrolysable, with a half-life of 6.5 days, and biodegradable up to 100% degradation and is not expected to persist in water. Models have predicted a biodegradation half-life in water of 15 days.

Environmental toxicity is a function of the n-octanol/water partition coefficient (log Pow, log Kow). Compounds with log Pow >5 act as neutral organics, but at a lower log Pow, the toxicity of epoxide-containing polymers is greater than that predicted for simple narcotics.

Reactive diluents which are only slightly soluble in water and do not evaporate quickly are expected to sink to the bottom or float to the top, depending on the density, where they would be expected to biodegrade slowly.

DO NOT discharge into sewer or waterways.

Persistence and degradability

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

Bioaccumulative potential

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

Mobility in soil

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

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal

- 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:

- Reduction
- Reuse
- 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. Shelf life considerations should also be applied in making decisions of this type.

- DO NOT allow wash water from cleaning or process equipment to enter drains.**
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Authority for disposal.
- Bury or incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	
HAZCHEM	+3Z

Land transport (ADG)

UN number	3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A/ diglycidyl ether resin, liquid)
Transport hazard class(es)	Class 9 Subrisk Not Applicable
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Special provisions 274 331 335 375 AU01 Limited quantity 5 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)

UN number	3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. * (contains bisphenol A/ diglycidyl ether resin, liquid)
Transport hazard class(es)	ICAO/IATA Class 9 ICAO / IATA Subrisk Not Applicable ERG Code 9L
Packing group	III
Environmental hazard	Environmentally hazardous
Special precautions for user	Special provisions A97 A158 A197 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
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A/ diglycidyl ether resin, liquid)
Transport hazard class(es)	IMDG Class 9 IMDG Subrisk Not Applicable
Packing group	III
Environmental hazard	Marine Pollutant
Special precautions for user	EMS Number F-A , S-F Special provisions 274 335 969 Limited Quantities 5 L

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

Not Applicable

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

BISPHENOL A/ DIGLYCIDYL ETHER RESIN, LIQUID(25068-38-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Hazardous Substances Information System - Consolidated Lists Australia Inventory of Chemical Substances (AICS)

BISPHENOL F/ EPICHLOROHYDRIN COPOLYMER(55492-52-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N(bisphenol F/ epichlorohydrin copolymer; bisphenol A/ diglycidyl ether resin, liquid)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	N (bisphenol F/ epichlorohydrin copolymer; bisphenol A/ diglycidyl ether resin, liquid)
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION**Other information****Ingredients with multiple cas numbers**

Name	CAS No
bisphenol A/ diglycidyl ether resin, liquid	25068-38-6, 25085-99-8
bisphenol F/ epichlorohydrin copolymer	55492-52-9, 58421-55-9, 9003-36-5

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
 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

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END OF SDS