ITW Polymers & Fluids

Chemwatch: 5375-07

Version No: 5.1

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

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

Product Identifier

Product name	Permatex 5 Min General Purpose Epoxy (Hardener)	
Chemical Name	Not Applicable	
Synonyms	PX84101	
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains pentaerythritol, propoxylated, mercaptoglycerol capped)	
Chemical formula	Not Applicable	
Other means of identification	Not Available	

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

Relevant identified uses	Epoxy curing agent.
Relevant identified uses	Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids	ITW Polymers & Fluids NZ
Address	100 Hassall New South Wales 2164 Australia	Unit 2/38 Trugood Drive 2013 New Zealand
Telephone	+61 2 9757 8800	+64 9272 1940
Fax	Not Available	Not Available
Website	Not Available	Not Available
Email	orders@itwpf.com.au	info@aamtech.co.nz

Emergency telephone number

Association / Organisation	Chemwatch	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	1800 951 288	+61 1800 951 288
Other emergency telephone numbers	+61 2 9186 1132	+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]	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3	
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	



Issue Date: 14/03/2024 Print Date: 14/03/2024

S.GHS.AUS.EN



Hazard statement(s)

H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H335	H335 May cause respiratory irritation.	

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.	
P102 Keep out of reach of children.		
P103 Read carefully and follow all instructions.		

Precautionary statement(s) Prevention

P271	Use only outdoors or in a well-ventilated area.	
P280 Wear protective gloves, protective clothing, eye protection and face protection.		
P261 Avoid breathing mist/vapours/spray.		
P264 Wash all exposed external body areas thoroughly after handling.		

Precautionary statement(s) Response

P302+P352	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.		

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
72244-98-5	60-100	pentaerythritol, propoxylated, mercaptoglycerol capped
90-72-2	7-13	2,4,6-tris[(dimethylamino)methyl]phenol
Legend:		atch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - on drawn from C&L: * EU IOELVs available

SECTION 4 First aid measures

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- Water 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
----------------------	---

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 course. Use water delivered as a fine spray to control fire and cool adjacent area. 		
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2) nitrogen oxides (NOx) sulfur oxides (SOx) hydrogen sulfide (H2S) 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

Minor Spills	 Slippery when spilt. Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
Major Spills	 Slippery when spilt. Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
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.

Conditions for safe storage, including any incompatibilities

Suitable container Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. 		
Storage incompatibility	 Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid strong bases. Avoid reaction with oxidising agents 	

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
2,4,6- tris[(dimethylamino)methyl]phenol	6.5 mg/m3	72 mg/m3		430 mg/m3
Ingredient	Original IDLH		Revised IDLH	
pentaerythritol, propoxylated, mercaptoglycerol capped	Not Available		Not Available	
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available		Not Available	

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit
pentaerythritol, propoxylated, mercaptoglycerol capped	E	≤ 0.1 ppm
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.	

Appropriate engineering controls	Use in a well-ventilated area General exhaust is adequate under normal operating conditions.		
Individual protection measures, such as personal protective equipment			
Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. 		
Skin protection	See Hand protection below		
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber Neoprene gloves 		
Body protection	See Other protection below		
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream. 		

Respiratory protection

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

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance Clear liquid with a mercaptan odour; does not mix with water.

Physical state	Liquid	Relative density (Water = 1)	1.13
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	1000-1600 mpas @ 20C
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	>95 (PMCC)	Taste	Not Available
Evaporation rate	Not Available	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)	0
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

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 of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.		
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting		
Skin Contact	his material can cause inflammation of the skin on contact in some persons. kin contact with the material may damage the health of the individual; systemic effects may result following absorption. ntry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. xamine the skin prior to the use of the material and ensure that any external damage is suitably protected. pen cuts, abraded or irritated skin should not be exposed to this material		
Eye	This material can cause eye irritation and damage in some persons.		
Chronic	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. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.		

Permatex 5 Min General Purpose	TOXICITY	IRRITATION
Epoxy (Hardener)	Not Available	Not Available
	ΤΟΧΙΟΙΤΥ	IRRITATION
pentaerythritol, propoxylated, mercaptoglycerol capped	Dermal (rabbit) LD50: >10200 mg/kg ^[2]	Not Available
mercaptogryceror capped	Oral (Rat) LD50: 2600 mg/kg ^[2]	
	TOXICITY	IRRITATION
2,4,6-	dermal (rat) LD50: >973 mg/kg ^[1]	Eye (rabbit): 0.05 mg/24h - SEVERE [Rohm & Haas, Henkel]* [Ciba]
ris[(dimethylamino)methyl]phenol	Oral (Rat) LD50: 1200 mg/kg ^[2]	Eye: adverse effect observed (irreversible damage) ^[1]
		Skin (rabbit): 2 mg/24h - SEVERE
		Skin: adverse effect observed (corrosive) ^[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

PENTAERYTHRITOL, PROPOXYLATED, MERCAPTOGLYCEROL CAPPED Both the vitro skin corrosion test and the vivo skin irritation study did not show significant irritating properties A reliable in vivo eye irritation in rabbit is available, demonstrating no significant eye irritating properties. In a LLNA study it was shown that the material could elicit a SI =3. Based on this result, the material needs to be classified as a skin sensitiser, according to Regulation (EC) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures. A 90-day oral gavage study in rats was performed according to GLP and OECD 408 (1998). Based on decreased platelet count and increased incidence of follicular hypertrophy/hyperplasia in the thyroid glands in males at 250 mg/kg bw/d and above, the NOAEL was set at 75 mg/kg bw/d. Based on the available data on genetic toxicity, the substance needs not to be classified for genotoxicity according to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging to Regulation (EC) No. 1272/2008 on Classification, Labelling and Packaging of Substances and Mixture * REACh

	Dossier 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. Polyethers (such as ethoxylated surfactants and polyethylene glycols) are highly susceptible to being oxidized in the air. They then form complex mixtures of oxidation products. Animal testing reveals that whole the pure, non-oxidised surfactant is non-sensitizing, many of the oxidation products are sensitisers. The oxidization products also cause irritation.
2,4,6- TRIS[(DIMETHYLAMINO)METHYL]PHENOL	Overexposure to most of these materials may cause adverse health effects. Many amine-based compounds can cause release of histamines, which, in turn, can trigger allergic and other physiological effects, including constriction of the bronchi or asthma and inflammation of the cavity of the nose. Whole-body symptoms include headache, nausea, faintness, anxiety, a decrease in blood pressure, rapid heartbeat, itching, reddening of the skin, urticaria (hives) and swelling of the face, which are usually transient. There are generally four routes of possible or potential exposure: inhalation, skin contact, eye contact, and swallowing. Inhalation: Inhaling vapours may result in moderate to severe irritation of the tissues of the nose and throat and can irritate the lungs. Higher concentrations of certain amines can produce severe respiratory irritation, characterized by discharge from the nose, coughing, difficulty in breathing and chest pain. Chronic exposure via inhalation may cause headache, nausea, vomiting, drowsiness, sore throat, inflammation of the bronchi and lungs, and possible lung damage. No significant acute toxicological data identified in literature search. The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.
PENTAERYTHRITOL, PROPOXYLATED, MERCAPTOGLYCEROL CAPPED & 2,4,6- TRIS[(DIMETHYLAMINO)METHYL]PHENOL	Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia.

Acute Toxicity	×	Carcinogenicity	×
Skin Irritation/Corrosion	✓	Reproductivity	×
Serious Eye Damage/Irritation	×	STOT - Single Exposure	•
Respiratory or Skin sensitisation	×	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×

Data available to make classification

SECTION 12 Ecological information

Toxicity

Permatex 5 Min General Purpose Epoxy (Hardener)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
pentaerythritol, propoxylated, mercaptoglycerol capped	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	12mg/l	Not Available
	EC50(ECx)	48h	Crustacea	12mg/l	Not Available
	LC50	96h	Fish	87mg/l	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
0.4.0	EC50	48h	Crustacea	>100mg/l	2
2,4,6- tris[(dimethylamino)methyl]phenol	EC50	72h	Algae or other aquatic plants	2.8mg/l	2

	EC50(ECx)	24h	Crustacea	280mg/l	Not Available
	LC50	96h	Fish	1000mg/l	Not Available
-	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

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.

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,4,6- tris[(dimethylamino)methyl]phenol	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,4,6- tris[(dimethylamino)methyl]phenol	LOW (LogKOW = 0.773)

Mobility in soil

Ingredient	Mobility	
2,4,6- tris[(dimethylamino)methyl]phenol	LOW (Log KOC = 15130)	

SECTION 13 Disposal considerations

Waste treatment methods		
Product / Packaging disposal	 Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill. 	

SECTION 14 Transport information

Labels Required

Marine Pollutant	NO
HAZCHEM	•3Z

Land transport (ADG)

14.1. UN number or ID number	3082	
14.2. UN proper shipping name	ENVIRONMENTALLY capped)	HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains pentaerythritol, propoxylated, mercaptoglycerol
14.3. Transport hazard class(es)	Class Subsidiary Hazard	9 Not Applicable
14.4. Packing group	Ш	

14.6. Special precautions Special provisions 274 331 335 375 AU01	14.5. Environmental hazard	Not Applicable	
for user 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)

• •	·			
14.1. UN number	3082			
14.2. UN proper shipping name	Environmentally hazardous substa	nce, liquid, n.o.s. (contains p	entaerythritol, propoxylated	d, mercaptoglycerol capped)
	ICAO/IATA Class	9		
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard Not Applicable			
01035(03)	ERG Code	9L		
14.4. Packing group	Ш			
14.5. Environmental hazard	Not Applicable			
	Special provisions		A97 A158 A197 A215	
	Cargo Only Packing Instructions		964	
	Cargo Only Maximum Qty / Pack		450 L	
14.6. Special precautions for user	Passenger and Cargo Packing Instructions		964	
.51 4001	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)

14.1. UN number	3082		
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains pentaerythritol, propoxylated, mercaptoglycerol capped)		
14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Ha	9 Iry Hazard Not Applicable	
14.4. Packing group	Ш		
14.5 Environmental hazard	Not Applicable		
14.6. Special precautions for user	EMS Number Special provisions Limited Quantities	F-A , S-F 274 335 969 5 L	

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

Not Applicable

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

Product name	Group
pentaerythritol, propoxylated, mercaptoglycerol capped	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
pentaerythritol, propoxylated, mercaptoglycerol capped	Not Available
2,4,6- tris[(dimethylamino)methyl]phenol	Not Available

SECTION 15 Regulatory information

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

pentaerythritol, propoxylated, mercaptoglycerol capped is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

2,4,6-tris[(dimethylamino)methyl]phenol is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australian Inventory of Industrial Chemicals (AIIC)

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	/es	
Canada - NDSL	No (pentaerythritol, propoxylated, mercaptoglycerol capped; 2,4,6-tris[(dimethylamino)methyl]phenol)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	No (pentaerythritol, propoxylated, mercaptoglycerol capped)	
Japan - ENCS	lo (pentaerythritol, propoxylated, mercaptoglycerol capped)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (pentaerythritol, propoxylated, mercaptoglycerol capped)	
Vietnam - NCI	Yes	
Russia - FBEPH	No (pentaerythritol, propoxylated, mercaptoglycerol capped)	
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	14/03/2024
Initial Date	25/10/2019

SDS Version Summary

Version	Date of Update	Sections Updated
4.1	23/12/2022	Classification review due to GHS Revision change.
5.1	14/03/2024	Name

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.

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.



ITW Polymers & Fluids

Chemwatch: **5074-30** Version No: **14.1**

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

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

Product Identifier

Product name	Permatex 5 Min General Purpose Epoxy Resin		
Chemical Name	bisphenol A diglycidyl ether		
Synonyms	PX84101		
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether)		
Chemical formula Not Applicable Other means of identification Not Available			

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

Relevant identified uses	Epoxy resin.
	Use according to manufacturer's directions.

Details of the manufacturer or supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids	ITW Polymers & Fluids NZ
Address	100 Hassall New South Wales 2164 Australia	Unit 2/38 Trugood Drive 2013 New Zealand
Telephone	+61 2 9757 8800	+64 9272 1940
Fax Not Available		Not Available
Website Not Available		Not Available
Email	orders@itwpf.com.au	info@aamtech.co.nz

Emergency telephone number

Association / Organisation	Chemwatch	CHEMWATCH EMERGENCY RESPONSE (24/7)
Emergency telephone numbers	1800 951 288	+61 1800 951 288
Other emergency telephone numbers	+61 2 9186 1132	+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	S5
Classification [1]	Skin Corrosion/Irritation Category 2, Sensitisation (Skin) Category 1, Serious Eye Damage/Eye Irritation Category 2A
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Chemwatch Hazard Alert Code: 2

Issue Date: 14/03/2024

Print Date: 14/03/2024

S.GHS.AUS.EN

Hazard pictogram(s)	
Signal word	Warning

Hazard statement(s)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary statement(s) Prevention

P280	Wear protective gloves, protective clothing, eye protection and face protection.
P261	Avoid breathing mist/vapours/spray.
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

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.	
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.	
P337+P313	If eye irritation persists: Get medical advice/attention.	

Precautionary statement(s) Storage

Not Applicable

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
1675-54-3	100	bisphenol A diglycidyl ether
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

Description of first aid measures

Eye Contact

	Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention.
Ingestion	 If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Extinguishing media

- Water 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 Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Avoid strong bases.
----------------------	--

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 course. Use water delivered as a fine spray to control fire and cool adjacent area.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO2) 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	Slippery when spilt. Remove all ignition sources. Clean up all spills immediately.
	 Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

	Slippery when spilt. Moderate hazard.
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.

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

SECTION 7 Handling and storage

Precautions for safe handling

Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area.

Conditions for safe storage, including any incompatibilities

Suitable container	 Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
Storage incompatibility	 Avoid reaction with amines, mercaptans, strong acids and oxidising agents Avoid strong bases.

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	39 mg/m3	430 mg/m3	2,600 mg/m3
bisphenol A diglycidyl ether	90 mg/m3	990 mg/m3	5,900 mg/m3
Ingredient	Original IDLH	Revised	

Ingredient	Original IDLH	Revised IDLH
	Not Available	Not Available

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit		
bisphenol A diglycidyl ether	E ≤ 0.1 ppm			
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.			

Exposure controls

Appropriate engineering controls

Individual protection measures, such as personal protective equipment Use in a well-ventilated area General exhaust is adequate under normal operating conditions.



Eye and face protection	 Safety glasses with side shields. Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent] Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber Neoprene gloves
Body protection	See Other protection below
Other protection	 Overalls. P.V.C apron. Barrier cream. Skin cleansing cream.

Respiratory protection

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

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear viscous liquid with a slight odour; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	1.16
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature (°C)	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	11000-14000 @25C
Initial boiling point and boiling range (°C)	>260 C	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	252 C (PMCC)	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)	0 (VOC - by wt)
Vapour pressure (kPa)	0.03 kPa @ 77C	Gas group	Not Available
Solubility in water	Immiscible	pH as a solution (1%)	Not Applicable
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	Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual. There is some evidence to suggest that the material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Ingestion may result in nausea, abdominal irritation, pain and vomiting
Skin Contact	This material can cause inflammation of the skin on contact in some persons. 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. Open cuts, abraded or irritated skin should not be exposed to this material
Eye	This material can cause eye irritation and damage in some persons.
Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. Sensitisation may give severe responses to very low levels of exposure, i.e. hypersensitivity. Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities.

	TOXICITY	IRRITATION	
Permatex 5 Min General Purpose Epoxy Resin	Dermal (Rabbit) LD50: 20000 mg/kg ^[2]	Not Available	
т прозе сроку кезін	Oral (Rat) LD50: 11300 uL/kg ^[2]		
	ΤΟΧΙΟΙΤΥ	IRRITATION	
	dermal (rat) LD50: >2000 mg/kg ^[1]	Eye (rabbit): 2 mg/24h - SEVERE	
bisphenol A diglycidyl ether	Oral (Rat) LD50: >2000 mg/kg ^[1]	Eye: adverse effect observed (irritating) ^[1]	
Chici		Skin (rabbit): 500 mg - mild	
		Skin: adverse effect observed (irritating) ^[1]	
Legend:	 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 		

Skin Irritation/Corrosion	✓	Reproductivity	×	
Acute Toxicity	×	Carcinogenicity	×	
BISPHENOL A DIGLYCIDYL ETHER	skin reactions, e.g. contact urticaria, involve antib Animal testing over 13 weeks showed bisphenol / the skin. Reproductive and Developmental Toxicity: Anima weight but had no reproductive effects. Cancer-causing potential: It has been concluded to causing potential in humans. Genetic toxicity: Laboratory tests on genetic toxic Immunotoxicity: Animal testing suggests regular in Consumer exposure: Comsumer exposure to BAI food. Testing has not found any evidence of horm Bisphenol A may have effects similar to female se foetus. It may also damage male reproductive org Glycidyl ethers can cause genetic damage and ca Oxiranes (including glycidyl ethers and alkyl oxide toxicology. One such oxirane is ethyloxirane; data For 1,2-butylene oxide (ethyloxirane): In animal testing, ethyloxirane increased the incid tumours were not observed in mice chronically ex and methyloxirane (propylene oxide), which are a 55badger The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to huma Evidence of carcinogenicity may be inadequate o	A diglycidyl ether (BADGE) cause I testing showed BADGE given ov that bisphenol A diglycidyl ether c ity of BADGE have so far been ne njections of diluted BADGE may r DGE is almost exclusively from mi tonal disruption. ex hormones and when administer gans and sperm. ancer. es, and epoxides) share many cor a presented here may be taken as lence of tumours of the airways in sposed via skin. Two structurally re ulso direct-acting alkylating agents	ver several months caused reduction in body annot be classified with respect to its cancer- egative. esult in sensitization. igration of BADGE from can coatings into red to pregnant women, may damage the mmon characteristics with respect to animal representative. animals exposed via inhalation. However, elated substances, oxirane (ethylene oxide)	
	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			

Serious Eye Damage/Irritation	✓	STOT - Single Exposure	×
Respiratory or Skin sensitisation	*	STOT - Repeated Exposure	×
Mutagenicity	×	Aspiration Hazard	×
	Leg	end: X – Data either not avail ✓ – Data available to ma	able or does not fill the criteria for classification ake classification

SECTION 12 Ecological information

Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Permatex 5 Min General Purpose Epoxy Resin	Not Available		Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
bisphenol A diglycidyl ether	EC50	48h	Crustacea	1.1mg/l	2
	EC50	72h	Algae or other aquatic plants	9.4mg/l	2
	NOEC(ECx)	504h	Crustacea	0.3mg/l	2
	LC50	96h	Fish	1.2mg/l	2
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

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	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
bisphenol A diglycidyl ether	MEDIUM (LogKOW = 3.8446)

Mobility in soil

Ingredient	Mobility
bisphenol A diglycidyl ether	LOW (Log KOC = 1767)

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. 	

SECTION 14 Transport information

Marine Pollutant	
HAZCHEM	•3Z

Land transport (ADG)

14.1. UN number or ID number	3082		
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether)		
14.3. Transport hazard class(es)	Class9Subsidiary HazardNot Applicable		
14.4. Packing group	III		
14.5. Environmental hazard	Environmentally hazardous		
14.6. Special precautions for user	Special provisions Limited quantity	274 331 335 375 AU01 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)

	·				
14.1. UN number	3082				
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (contains bisphenol A diglycidyl ether)				
	ICAO/IATA Class	9			
14.3. Transport hazard class(es)	ICAO / IATA Subsidiary Hazard	Not Applicable			
Class(65)	ERG Code	ERG Code 9L			
14.4. Packing group	II				
14.5. Environmental hazard	Environmentally hazardous				
	Special provisions		A97 A158 A197 A215		
	Cargo Only Packing Instructions		964		
	Cargo Only Maximum Qty / Pack		450 L		
4.6. Special precautions for user	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 Ma	aximum Qty / Pack	30 kg G		

Sea transport (IMDG-Code / GGVSee)

14.1. UN number	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains bisphenol A diglycidyl ether)

14.3. Transport hazard class(es)	IMDG Class IMDG Subsidiary Ha	9 ard Not Applicable		
14.4. Packing group	Ш			
14.5 Environmental hazard	Marine Pollutant			
14.6. Special precautions for user	EMS Number Special provisions Limited Quantities	F-A , S-F 274 335 969 5 L		

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

Not Applicable

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

Product name	Group
bisphenol A diglycidyl ether	Not Available

14.7.3. Transport in bulk in accordance with the IGC Code

Product name	Ship Type
bisphenol A diglycidyl ether	Not Available

SECTION 15 Regulatory information

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

bisphenol A diglycidyl ether is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

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

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

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

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

Additional Regulatory Information

Not Applicable

National Inventory Status

National Inventory	Status	
Australia - AIIC / Australia Non-Industrial Use	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (bisphenol A diglycidyl ether)	
China - IECSC	es	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	Yes	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	Yes	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (bisphenol A diglycidyl ether)	
Vietnam - NCI	Yes	
Russia - FBEPH	Yes	

National Inventory	Status	
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	14/03/2024
Initial Date	16/12/2005

SDS Version Summary

Version	Date of Update	Sections Updated
13.1	23/12/2022	Classification review due to GHS Revision change.
14.1	14/03/2024	Name

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.

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH.

TEL (+61 3) 9572 4700.

