



Section 1 – Chemical Product and Company Identification

ADR450 Epoxy Resin.

Product Name:

Product Code: ADR450.

Recommended use: Epoxy resin is suitable for construction of fibre reinforced equipment and fittings. Suitable for construction of recreational watercraft. Corrosion resistant flooring and coatings.

Supplier: Adhesive Technologies NZ Limited.

Street Address: 17 Corban Avenue, Henderson, Auckland.

Telephone Number: 0064 9 838 6961 (8.00am to 5.00pm, Monday to Friday).

Facsimile: 0064 9 836 4849.

Web Address <http://www.adhesivetech.co.nz/>

Emergency Telephone: 0064 3 479 7248 (From overseas).

National Poison Information Centre 0800 POISON (764 766) (within New Zealand).

New Zealand Fire Service 111

Date of issue 06/10/2025

Version 1.1



Section 2 – Hazards Identification

Hazard Classification

Flammable Liquids:	Category 2
Acute Toxicity (Dermal):	Category 1
Skin Corrosion/Irritation:	Category 2
Serious Eye Damage/Eye Irritation:	Category 2A
Skin Sensitizer:	Category 1
Specific Target Organ Toxicity (Acute):	Category 2
Aquatic Toxicity (Chronic):	Category 2

For the full text of the H-Statements mentioned in this Section, see Section 16.



Signal Word: DANGER



Precautionary Statements

Hazards Statement

H225	Highly Flammable liquid and vapour.
H303	May be harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H31G	Causes serious eye irritation.
H371	May cause damage to organs through prolonged or repeated exposure
H401	Toxic to aquatic life.

Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces-no smoking.
P233	Keep container tightly closed.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.



Response

P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P362	Take off contaminated clothing and wash before re-use.
P370 + P378	In case of fire: Use water fog or fine spray, foam, carbon dioxide fire extinguishers, or dry chemical fire extinguishers for extinction
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338	IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage

P405	Store locked up
-------------	-----------------

Disposal

P501	Dispose of contents/ container to an approved waste disposal plant. Restricted to professional users.
-------------	--

Other hazards



Section 3 – Composition/Information on Ingredients

Substance / Mixture: Mixture

Hazardous Ingredients:

Chemical Name	CAS No.	Concentration (%)
Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxiran]e (DGEBA-based)	25036-25-3	50-60
Acetone	67-64-1	20-30
Xylene	1330-20-7	1-20
Ethylbenzene	100-41-4	1-20
Other non-hazardous components		to 100



Section 4 – First Aid Measures

If poisoning occurs, contact a doctor or Poisons Information Centre Phone 0800 764 766.

- Ingestion:** Do not induce vomiting. Rinse mouth with water. Give plenty of water to drink.
- Inhalation:** Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention.
- Skin Contact:** Remove contaminated clothing/shoes and wipe excess from skin. Flush skin with water. Follow by washing with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. Contaminated leather articles, including shoes, cannot be decontaminated, and should be destroyed to prevent reuse.
- Eye Contact:** Flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention.
- Notes to physician:** Treat symptomatically.

Section 5 – Fire Fighting Measures

- Hazards from combustion:** In case of fire, the following hazardous smoke fumes may be produced: Carbon Oxides, Nitrous gases, and ammonia.
- Suitable extinguishing media**
- Alcohol-resistant foam.
 - Carbon dioxide (CO₂).
 - Dry chemical.
 - Dry sand.
 - Limestone powder.

**Fire-fighting advice:**

Clear fire area of all non-emergency personnel. Isolate fire and deny unnecessary entry. Cool fire exposed containers with water. Irritating fumes are released in fire situations. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Do not allow material or run-off to enter waterways. Stay upwind, keep out of low areas. Wear positive- pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves).

Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location.

Suitable Extinguishing Media:

Use water fog, foam, dry chemical, or carbon dioxide. Do not use direct water stream. May spread fire.

Hazchem Code

*2YE.



Section 6 – Accidental Release Measures

General Precautions:	Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.
Personal Precautions:	Use cautious judgement when cleaning up spills. Shut off leaks, if possible, without personal risk.
Environ-mental Precautions:	Dike and contain. Contain run-off and dispose of properly. Remove contaminated soil to remove contaminated trace residues. Prevent from entering drains, ditches, or rivers.
Clean-up Methods (small):	Soak up with an absorbent material such as clay, sand, or Zorball. Place it in non-leaking container. Seal tightly for proper disposal.
For Large Spills:	Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent material such as clay, sand, or Zorball. Place it in non-leaking container. Seal tightly for proper disposal. Flush is with water to remove trace residue.



Section 7 - Handling and Storage

Workplace Exposure Standards: Not established.

Engineering control measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants as low as possible and/or below any recommended or statutory limits. Use explosion-proof ventilation equipment.

Personal protective equipment:

Respiratory - Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Skin - Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Eye - Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts.

Hand - Recommended: polyvinyl alcohol (PVA), Butyl rubber, EVAL, Neoprene.



Section 8 – Exposure Controls, Personal Protection

Ingredients with workplace control measures

Workplace Exposure Standards: Xylene	TWA 100 ppm BEI, 217 mg/m ³ 50 ppm
	STEL 150 ppm BEI
Ethylbenzene	TWA 20 ppm BEI, 434 mg/m ³ 100 ppm
	STEL 543 mg/m ³ 125 ppm
Acetone	TWA 500 ppm 1185 mg/m ³
	STEL 1000 ppm 2375 mg/m ³

Engineering controls: Ventilation: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Personal Protection: **Eye/Face Protection:** Use safety glasses (with side shields). If exposure causes eye discomfort, use a full-face respirator.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include Polyethylene, Ethyl vinyl alcohol laminate ("EVAL"), Polyvinyl alcohol ("PVA") and Viton. Examples of acceptable glove barrier materials include: Butyl rubber,



Neoprene, Natural rubber ("latex"), Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR").

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to AS/NZS 2161.10) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. The following should be effective types of air purifying respirators: Organic vapour cartridge.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.



Section 9 – Physical & Chemical Properties

Physical State	Liquid
Colour	Yellow
Odour	Aromatic
Melting/Freezing Point	Not available
Boiling Point	138 °C Literature (xylene).
Flammability	Not available
Flammability Limits	Lower: 1 - 3%(V) Literature (xylene/acetone) Upper: 7.0 %(V) Literature (xylene/acetone)
Flash Point	-20°C
Auto-ignition temperature	465 °C Literature (xylene)
pH	Not available
Viscosity:	Not available
Vapour density	3.7 Literature (xylene)
Vapour pressure	9.5 mmHg @ 20 °C Literature (xylene)
Density:	1.09 – 1.10 g cm ⁻³ @ 20°C
Solubility (water)	Slightly soluble in water



Section 10 – Stability and Reactivity

- Chemical Stability:** Stable under recommended storage conditions.
- Conditions to avoid:** Avoid temperatures above 300°C. Potentially violent decomposition can occur, causing gas generation and pressure increases in closed systems.
- Materials to avoid:** Heat is generated when mixed with water. Spattering and boiling can occur. Avoid contact with oxidizing materials. Avoid contact with: Acids, Acrylates, Alcohols, Aldehydes, Halogenated hydrocarbons, Ketones and Nitrites. Avoid contact with metals such as: Brass, Bronze, Copper and Copper alloys. Avoid contact with absorbent materials such as: Ground corn cobs, moist organic absorbents, peatmoss and Sawdust.

Section 11 – Toxicological Information

Information on toxicological effects

Potential Health effects:	
Inhalation:	Vapour concentrations are attainable which could be hazardous on single exposure. May cause respiratory irritation and central nervous system depression. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.
Ingestion:	Low toxicity if swallowed. Swallowing may result in gastrointestinal irritation or ulceration. As product: Single dose oral LD50 has not been determined.
Skin:	Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Vapour may cause skin irritation. May cause drying and flaking of the skin. The data presented are for the following material: Epoxy resin. Has caused allergic skin reactions when tested in guinea pigs.



Eye:	May cause slight eye irritation. May cause slight temporary corneal injury. Vapour may cause eye irritation experienced as mild discomfort and redness.		
Acute Health Effects			
(Estimated. Solvents)			
Test	Species	Result	Exposure
LD50 Oral	Rat	>2000 mg/kg	-
LC50 Inhalation	Rat	>4000 ppm	4h
LD50 Dermal	Rabbit	>2000 mg/kg	-
Systemic Effects:	Based on information for component(s): In animals, effects have been reported on the following organs: Blood. Kidney. Liver. Lung. Xylene is reported to have caused hearing loss in laboratory animals upon exposure to high concentrations; such effects have not been reported in humans. Although one early inhalation study on ethylbenzene reported an adverse effect on the testes, recent, more comprehensive studies have not shown this effect.		
Carcinogenicity:	Ethylbenzene has been shown to cause cancer in laboratory animals. Xylene was not found to be carcinogenic in a National Toxicology Program bioassay in rats and mice. Similar epoxy resin did not cause cancer in long-term animal studies.		
Mutagenicity:	Exaggerated doses of xylene given orally to pregnant mice resulted in an increase in cleft palate, a common developmental abnormality in mice.		



	In animal inhalation studies, xylene caused toxicity to the foetus but did not cause birth defects. Available data are inadequate for evaluation of maternal toxicity. The data presented are for the following material: Ethylbenzene. It has caused birth defects in laboratory animals only at doses toxic to the mother. Has been toxic to the fetus in lab animals at doses nontoxic to the mother. Some similar resins have shown genetic toxicity in in vitro tests, while others have not. The data presented are for the following material Xylene. Ethylbenzene. In vitro genetic toxicity studies were negative. For the component(s) tested: Animal genetic toxicity studies were negative.
Reproductive toxicity - Assessment:	Based on information for component(s): Xylene. In animal studies, did not interfere with reproduction.

Section 12 – Eco-toxicological Information

(Xylene)			
Ecotoxicity	Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).		
	Species	Period	Result
LC50	Oncorhynchus mykiss (rainbow trout)	96 h	2.6 mg/l
IC50	Daphnia magna (Water flea)	24 h	1 - 4.7 mg/l
ErC50	Pseudokirchneriella subcapitata (green algae)	73 h	4.36 mg/l
Degradability	Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.		
Bioaccumulation	Bioconcentration potential is low (BCF < 100 or Log Pow < 3). Partition coefficient, n-octanol/water (log Pow): 3.12 Measured		
Legact HSNO Classification	G.1D	Slightly harmful in the aquatic environment or are otherwise designed for biocidal action (fish).	



Section 13 – Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must follow all Federal, State/Provincial, and local laws and regulations.

FOR UNUSED AND UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator, or other destruction device.

General information: The generation of waste should be minimized or avoided wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods: Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Do not discharge into drains or watercourses or onto the ground.



Section 14 – Transportation & Regulatory Information

Road, Rail, Sea and Air Transport

UN Number	1992
Proper Shipping Name	Flammable liquid, Toxic, n.o.s. (contains hydrocarbons)
DG Class	3
Subsidiary Class	6.1
Packing Group	II
HAZCHEM code	3WE
IMO/IMDG class	3
ICAO/IATA class	3
EMS code	F – E, S – D
Marine pollutant	Yes

Section 15 – Regulatory Information

EPA Approval:	The HSNO Approval Number for this Group Standard is HSR002662.
Group Standard:	Surface Coatings and Colourants (Corrosive) Group Standard 2020.



Section 16 – Other Information

References

<https://echa.europa.eu/information-on-chemicals/cl-inventory-databas> <https://www.epa.govt.nz/database-search/chemical-classification-and-information-database-ccid/> <https://www.epa.govt.nz/>

RCNZ Approved HSNO CoP Preparation of Safety Data Sheets

https://www.epa.govt.nz/assets/Uploads/Documents/Hazardous-Substances/GHS2/Guide_to_Classifying_Hazardous_Substances_in_NZ.pdf

The information provided in this safety data sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in text. If clarification or further information is needed, the user should contact Adhesive Technologies NZ Limited

Product Information Manager on 0064 9 838 6961 (8.00 am to 5.00 pm – Monday to Friday)

While Adhesive Technologies NZ Limited believes that the information contained herein is based on data considered accurate, no warranty or representation is expressed or implied for which Adhesive Technologies NZ Limited assumes legal responsibility.

This version replaces all previous versions.

END OF SDS