

SAFETY DATA SHEET

CODE: ADH450

ISSUE DATE: 07/10/2024 REVISION: 1.1



adhesivetech

1.0 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE SUPPLIER

Product Name:	ADH450 Epoxy Hardener
Product Code:	ADH450
Recommended use:	Epoxy hardener used for curing epoxy resin systems. Used for construction of fibre reinforced equipment and fittings. Suitable for construction of recreational water craft. 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	07/10/2024
Version	1.1

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2.0 HAZARDS IDENTIFICATION

Hazard Classification

Flammable Liquids:	Category 2
Skin Corrosion/Irritation:	Category 1B
Skin Sensitisation:	Category 1
Aspiration Toxicity:	Category 1
Reproductive Toxicity:	Category 2
Specific Target Organ Toxicity (single exposure):	Category 2
Specific Target Organ Toxicity (repeat exposure):	Category 2
Aquatic Toxicity (acute):	Category 1

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



Signal Word: DANGER

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Precautionary Statements

Hazards Statement

H225	Highly flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H304	May be fatal if swallowed and enters air ways
H361	Suspected of damaging fertility or the unborn child
H335+H336	May cause respiratory irritation or may cause drowsiness or dizziness
H371	May cause damage to organs
H400	Very toxic to aquatic life
H412	Harmful to aquatic life with long-lasting effects

Prevention

P210	Keep away from heat, hot surface, sparks, open flames, and other ignition source
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/.../] equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P203	Obtain, read, and follow all safety instructions before use.

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P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

Response

P370+P378 IN CASE OF FIRE: Use sand, carbon dioxide or powder extinguisher for extinction.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.

P301+P316 IF SWALLOWED: Get emergency medical help immediately.

P302+361+P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.

P303+P361+P353 IF ON SKIN (OR HAIR): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].

P333+317 IF SKIN irritation or rash occurs: Get medical help.

P363 Wash contaminated clothing before reuse.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P316 IF INHALED: Get emergency medical help immediately.

P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P318 If exposed or concerned, get medical advice.

P319 Get medical help if you feel unwell.

P391 Collect spillage.

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Storage

P405 Store locked up

Disposal

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

Other hazards

3.0 COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Hazardous Ingredients:

Chemical Name	CAS No.	Concentration (%)
Toluene	108-88-3	70 – 95
Nonylphenol	25154-52-3	0 – 20
2-piperazin-1-ylethylamine	140-31-8	0 – 20
Other non-hazardous components		to 100

4.0 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

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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.

5.0 FIRE FIGHTING MEASURES

Hazards from combustion: In case of fire, the following hazardous smoke fumes may be produced: Carbon Oxides, Nitrous gases, 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).

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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

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

Media:

Hazchem Code

2X

6.0 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, sawdust or Zorball. Place 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,

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sawdust or Zorball. Place in non-leaking container. Seal tightly for proper disposal. Flush is with water to remove trace residue.

7.0 HANDLING & 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

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8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients with workplace control measures

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.

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9.0 PHYSICAL & CHEMICAL PROPERTIES

Physical State	Liquid
Colour	Yellow
Odour	Sweet odour
Melting/Freezing Point	Not available
Boiling Point	110 – 111°C (literature (toluene))
Flammability	Not available
Flammability Limits	Not available
Flash Point	5°C (typical toluene)
Auto-ignition temperature	>500°C
pH	Not available
Viscosity:	Not available
Vapour density	>1 @ 20°C (air = 1)
Vapour pressure	7 kPa @ 38°C (toluene)
Density:	0.86 – 0.88 g cm ⁻³ @ 20°C
Solubility (water)	0.05 (toluene)

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10.0 STABILITY & REACTIVITY

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.
Incompatible materials:	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. Nitrites. Avoid contact with metals such as: Brass. Bronze. Copper. Copper alloys. Avoid contact with absorbent materials such as: Ground corn cobs. Moist organic absorbents. Peat moss. Sawdust.
Hazardous Decomposition Products:	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Ammonia. Ethylenediamine. Volatile amines.

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11.0 TOXICOLOGICAL INFORMATION**Information on toxicological effects****Ingestion:** May be fatal if swallowed and enters air ways**Eye contact:** Severe eye damage**Skin contact:** Severe skin burns**Inhalation:** No data is available on the product itself.**Acute Health Effects Toluene**

Test	Species	Result	Exposure
LD50 Oral	Rat	636 mg/Kg	-
LC50 Inhalation	Rat	12.5 mg/L	4 h
LD50 Dermal	Rabbit	> 2000 mg/kg	-

Skin Sensitization May cause an allergic skin reaction**Aspiration Toxicity** May be fatal if swallowed and enters air ways**Reproductive toxicity** Suspected of damaging fertility or the unborn child**STOT Single Exposure** May cause respiratory irritation or may cause drowsiness
or dizziness**STOT Repeat Exposure** May cause damage to organs**Carcinogenicity** No data is available on the product itself.**Mutagenicity** No data is available on the product itself.

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12.0 ECO-TOXICOLOGICAL INFORMATION

Toluene

Ecotoxicity

Aquatic toxicity Product is toxic to aquatic life.

Persistence/degradability This product is expected to biodegrade rapidly.
Does not bioaccumulate significantly.

Mobility Highly volatile, mobile in soil and will evaporate to
air if released into water.

Environmental Exposure Not set

Standards

13.0 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 minimised 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.

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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.

14.0 TRANSPORTATION & REGULATORY INFORMATION

Road, Rail, Sea and Air Transport

UN Number 2924

Proper Shipping name Flammable liquid, corrosive, n.o.s (contains Toluene).

DG Class 3 (8)

Packing Group II

HAZCHEM code 3YE

IMO/IMDG class 3

ICAO/IATA class 3

EMS code F – E, S – C

Marine pollutant Yes

15.0 REGULATORY INFORMATION

EPA Approval: The HSNO Approval Number for this Group Standard is HSR002663.

Group Standard: Surface Coatings and Colourants (Corrosive) Group Standard 2020

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16.0 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

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This version replaces all previous versions.

FOR FURTHER PRODUCT INFORMATION CALL ADHESIVE TECHNOLOGIES NZ LTD DURING BUSINESS HOURS

Product Information Manager (+64) 9 838 6961

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