

SAFETY DATA SHEET

CODE: R105

ISSUE DATE: 08/10/2024 REVISION: 1.1



adhesivetech

**WEST
SYSTEM®**

1.0 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE SUPPLIER

Product Name:	WEST SYSTEM® 105 Epoxy Resin
Product Code:	R105
Recommended use:	Epoxy resin suitable 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.adhesivetechtechnologies.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	08/10/2024
Version	1.1

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2.0 HAZARDS IDENTIFICATION

Hazard Classification

Acute Toxicity (Inhalation):	Category 2
Skin Corrosion/Irritation:	Category 2
Serious Eye Damage/Eye Irritation:	Category 2
Skin Sensitiser:	Category 1
Specific Target Organ Toxicity (Chronic):	Category 2
Aquatic Toxicity (Chronic):	Category 2

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



Signal Word: WARNING

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Precautionary Statements

Hazards Statement

H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long-lasting effects
H302	Harmful if swallowed
H332	Harmful if inhaled
H335	May cause respiratory irritation

Prevention

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352	IF ON SKIN: wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P330	Rinse mouth.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/... if you feel unwell.

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P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

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 (%)
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	25085-99-8	60-70
Phenol-Formaldehyde Polymer Glycidyl Ether	28064-14-4	15-20
Benzyl alcohol	100-51-6	15-20
Ethylene Glycol Monobutyl ether	111-76-2	<0.5
Poly(dimethylsiloxane-co-ethylene oxide), AB block copolymer	68937-54-2	<0.2
Other non-hazardous components		to 100

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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 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

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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

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

Media:

Hazchem Code

3Z

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.

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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, 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.

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

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredients with workplace control measures

Workplace Exposure Standards None established

Engineering controls 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 Protection **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.

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9.0 PHYSICAL & CHEMICAL PROPERTIES

Physical state	Liquid
Appearance	Viscous
Colour	Colourless
Odour	Mild
Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	> 400 °F (204 °C)
Flash point	251°C (closed cup)
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	Heavier than air (estimated based on ingredient data)
Relative density	1.15
Solubility	No data available
Partition coefficient n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	869.5 mm ² /s @ 68 °F (20 °C)
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	: No data available
Other information	
Bulk density	: 9.6 lb/gal (1.15 kg/L)

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10.0 STABILITY & 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. 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.

11.0 TOXICOLOGICAL INFORMATION**Information on toxicological effects**

Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8)	
LD50 oral rat	> 15000 mg/kg
LD50 dermal rabbit	> 23000 mg/kg

Benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg
LC50 inhalation rat	4.18 mg/l/4h

Phenol, polymer with formaldehyde, glycidyl ether (28064-14-4)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	2000 mg/kg

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Acute toxicity (oral)	Not classified.
Acute toxicity (dermal)	Not classified.
Acute toxicity (inhalation)	Not classified.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified. No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA, NTP or IARC.
Reproductive toxicity	Not classified.
STOT-single exposure	Not classified.
STOT-repeated exposure	Not classified.
Aspiration hazard	Not classified.

WEST SYSTEM® 105 Epoxy Resin

Viscosity, kinematic (calculated value) (40 °C)	869.5 mm ² /s @ 68 °F (20 °C)
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Symptoms/injuries after inhalation	Not a normal route of exposure. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	Causes serious eye irritation. Symptoms may include discomfort or pain excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	May be harmful if swallowed. May cause stomach distress, nausea or vomiting.
Other information	Likely routes of exposure: ingestion, inhalation, skin and eye.

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12.0 ECO-TOXICOLOGICAL INFORMATION

Toxicity**Ecology - general**

Toxic to aquatic life with long lasting effects.

Benzyl alcohol (100-51-6)	
LC50 fish 1	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	23 mg/l (Exposure time: 48 h - Species: water flea)
LC50 fish 2	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Persistence and degradability

WEST SYSTEM® 105 Epoxy Resin	
Persistence and degradability	Not established.

Bioaccumulative potential

WEST SYSTEM® 105 Epoxy Resin	
Bioaccumulative potential	Not established.

Benzyl alcohol (100-51-6)	
Partition coefficient n-octanol/water	1.1

Mobility in soil

No additional information available

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Other adverse effects

Effect on the global warming

No known effects from this product.

Name	Product identifier	Ecotoxicity Classification Information
Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer	(CAS No) 25085-99-8	Aquatic Chronic Cat. 2
Benzyl alcohol	(CAS No) 100-51-6	Not Classified
Phenol, polymer with formaldehyde, glycidyl ether	(CAS No) 28064-14-4	Aquatic Chronic Cat. 2

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

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT and TDG Not regulated

Transport by sea

In accordance with IMDG

UN-No. (IMDG): 3082

Proper Shipping Name (IMDG): ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin Mixture)

Class (IMDG): 9

Packing group (IMDG): III

HAZCHEM: 3Z

EmS Number : F-A, S-F

Marine Pollutant: Yes

Transport by air

In accordance with IATA

UN-No. (IATA): 3082

Proper Shipping Name (IATA): Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin Mixture)

Class (IATA): 9

Packing group (IATA): III

HAZCHEM: 3Z

Marine Pollutant: Yes

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15.0 REGULATORY INFORMATION

EPA Approval: The HSNO Approval Number for this Group Standard is HSR002670.
Group Standard: Surface Coatings and Colourants (Corrosive) Group Standard 2020

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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