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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.adhesivetechnologies.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

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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.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

P305+P351+P338 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

Media: direct water stream. May spread fire

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 Use only with adequate ventilation. Use process enclosures, local exhaust

measures: 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 controlsUse 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.

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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9.0 PHYSICAL & CHEMICAL PROPERTIES

Physical stateLiquidAppearanceViscousColourColourless

Odour Mild

Odour thresholdNo data availablepHNo data availableMelting pointNo data availableFreezing pointNo data availableBoiling point> 400 °F (204 °C)Flash point251°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

SolubilityNo data availablePartition coefficient n-octanol/waterNo data availableAuto-ignition temperatureNo data availableDecomposition temperatureNo data available

Viscosity, kinematic 869.5 mm²/s @ 68 °F (20 °C)

Viscosity, dynamic

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

STOT-single exposure

STOT-repeated exposure

Aspiration hazard

Not classified.

Not classified.

Not classified.

WEST SYSTEM® 105 Epoxy Resin	
Viscosity, kinematic (calculated value) (40 °C)	869.5 mm ² /s @ 68 °F (20 °C)

Symptoms/injuries after inhalation Not a normal route of exposure. May cause respiratory tract irritation.

Symptoms/injuries after skin Causes skin irritation. Symptoms may include redness, edema, drying, contact defatting and cracking of the skin. May cause an allergic skin reaction.

defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/injuries after eyeCauses 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-	1.1
octanol/water	

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):

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

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