

GEMCUTS PTY LTD

Date of Issue 25-10-2019

**SAFETY DATA SHEET
EPOXY 220A**

IMPORTANT NOTICE: This Safety Data Sheet (SDS) is issued by Gemcuts Pty Ltd in accordance with National Occupational Health and Safety Commission guidelines. The information contained in this document must not be added to, deleted or altered. Gemcuts Pty Ltd will issue a new SDS when there is a change in the product specifications and/or with the National Occupational Health and Safety Commission guidelines/ regulations. Gemcuts Pty Ltd will not accept any responsibility for any changes made to its SDS in content by any other person or organisation.

CLASSIFICATION OF MATERIAL

This material is hazardous according to health criteria of Worksafe Australia

1. IDENTIFICATION OF THE MATERIAL & SUPPLIER

Product	Epoxy 220A
Recommended Use	Epoxy Resin
Supplier/Importer	Gemcuts Pty Ltd
ABN	43 780 687 841
Manufacturer	Hughes Associates LLC
Address	36A Smith Drive, West Ballina NSW 2478
Telephone Number	02 66811686
Facsimile	N/A
Email	admin@gemcuts.com.au
Emergency Telephone	131126 Poisons Information Centre 0427012014

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2. HAZARDS IDENTIFICATION

Signal Word: WARNING

2.1 Hazards Classification: Hazardous substance. Dangerous Goods

Hazardous to the aquatic environment (chronic) – category 2

Skin sensitisation – category 1

Skin irritation – category 2

Eye irritation – category 2A

2.2 Hazard Phrases:

H315: Causes skin and eye irritation

H319: Causes serious eye irritation

H317: May cause an allergic skin reaction

H411: Toxic to aquatic life with long lasting effects

2.3 Precautionary Phrase(s)

P261: Avoid breathing dust/fumes/vapours

P264: Wash thoroughly after handling

P272: Contaminated work clothing should not be allowed out of the workplace

P273: Avoid release to the environment

P280: Wear protective gloves/clothing/eye protection/face protection

P302: IF ON SKIN

P352: Wash with plenty of water

P305/351/338: 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

P362+P364: Take off contaminated clothing and wash before reuse

P391: Collect spillage

Emergency Overview: Avoid contact with product and avoid product entering the waterways. 24-86% of the mixture consists of components of unknown long-term hazards to the aquatic environment.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product Description: Clear Liquid. Sweet odour.

3.2 Contents

Chemical Name	CAS Number	Proportion %
Bisphenol-A-(epichlorohydrin)	25068-38-6	75.14
Other components below reportable levels (trade secret)		24.86

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre,

Phone (Australia) 131 126

Inhalation: Remove promptly to fresh air. Medical attention should be sought if symptoms develop or persist.

Skin Contact: Immediately remove contaminated clothing. Wash skin with water and soap.

Launder contaminated clothing before re-use. If skin disorder develops seek medical attention.

Eye Contact: Flush eye with running water for a minimum of 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Seek medical attention promptly if irritation develops or persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Note to Doctor: Treat symptomatically. Symptoms can be acute and delayed.

5. FIRE FIGHTING MEASURES

5.1 Explosion Hazard: None noted.

5.2 Fire Fighting Advice: Full fire kit and breathing apparatus is required. If safe to do so, remove containers from path of fire.

5.3 Suitable Extinguishing Media: Water fog, foam, dry chemical or carbon dioxide.

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6. ACCIDENTAL RELEASE MEASURES

Emergency Action: Isolate the area and remove any persons not involved in the clean-up. Contain the spill for salvage or absorb in inert absorbent material (e.g. Soil, sand, vermiculite) for disposal by an approved method. Small spills can be picked up with a fleece cloth. Prevent run-off into drains and water ways. If contamination of sewers or waterways has occurred, advise the local emergency services.

Use appropriate personal protective measures (section 8) and keep area well ventilated.

Never return spills to the original container for reuse.

7. HANDLING & STORAGE

7.1 Handling Advice: Use in well ventilated areas. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor. Wash thoroughly after handling. Avoid release to the environment.

For PPE see section 8

7.2 Storage Advice: Store in original container closed tightly. Store away from incompatible materials. See Section 10

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational Exposure Limits: National Occupational Exposure Standard (NES), Safe Work Australia (formerly ASCC/NOHSC).

Bisphenol-A-(epichlorohydrin) 25068-38-6 Not Listed

Subsequent reference: Epichlorohydrin 106-89-8 TWA 7.6mg/m³

8.2 Engineering Control Measures: Ensure ventilation is adequate to maintain air quality.

Use with local exhaust ventilation and mechanical ventilation, wear an air purifying respirator if not able to do so.

8.3 Personal Protective Equipment:

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, APPROVED AIR RESPIRATOR.

Avoid eye contact by wearing chemical goggles with side-shields or face-shield (AS/NZS 1336) whenever exposed to vapour or mist or if there is a risk of splashing liquid in the eyes. Safety showers with eyewash should be provided in all areas where product is handled.

Protective clothing (gloves, coveralls, boots, etc.) should be worn to prevent skin contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. Contaminated clothing should not leave the workplace.

SAFETY DATA SHEET**9. PHYSICAL & CHEMICAL PROPERTIES**

Physical State:	Liquid
Colour:	Clear/Amber
Odour:	Ammonia
Solubility:	Not available
Density	Not available
Flash Point (°C):	93.3°C
Melting/Freezing Point (°C)	537.22°C

10. STABILITY & REACTIVITY

Chemical Stability: Stable

Conditions to Avoid: Heat, sparks and flame. Contact with incompatible material.

Hazardous Reactions: Hazardous polymerisation will not occur under normal conditions.

Incompatible Materials: Will react with strong oxidizing agents.

Hazardous Decomposition: None known

11. TOXICOLOGY INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Expected to be a low ingestion hazard.

Eye Contact: Causes serious eye irritation.

Skin Contact: Contact with skin may result in irritation and redness. May cause an allergic skin reaction.

Inhalation: No adverse effects due to inhalation are expected.

Acute Toxicity: May cause an allergic reaction.

Carcinogen: Not known to be

Mutagenicity: Not known to be

Reproductive Toxicity: Not expected to be

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12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Degradability: No data

Bio accumulative Potential: No data

Mobility in Soil: No Data

13 DISPOSAL CONSIDERATIONS

Product must be contained and not disposed to the sewerage systems, drains or waterways.
Dispose of in accordance with Local/State/Commonwealth regulations.

14. TRANSPORT INFORMATION

14.1 **Road and Rail Transport:** ADG

Not regulated

14.2 **Marine Transport:** IMDG

UN No.: 3082

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bisphenol-A Epichlorhydrin resin)

Class or division: 9

Packing group: III

EmS: F-A, S-F

Seawater pollutant: Marine pollutant

14.3 **Air Transport:** IATA

UN No.: 3082

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Bisphenol-A Epichlorhydrin resin)

Class or division: 9

Packing group: III

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15. REGULATORY INFORMATION

Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]

AS 1940 Storage and handling of flammable and combustible liquids

ASNZS 1715/16 Respiratory protective devices.

Safe Work Australia

IATA

IMDG

NES

16. OTHER INFORMATION

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Gemcuts Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Gemcuts Pty Ltd at the contact details on page 1.

Gemcuts Pty Ltd responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

GEMCUTS PTY LTD

Date of Issue 27-04-2019

SAFETY DATA SHEET**EPOXY 220B**

IMPORTANT NOTICE: This Safety Data Sheet (SDS) is issued by Gemcuts Pty Ltd in accordance with National Occupational Health and Safety Commission guidelines. The information contained in this document must not be added to, deleted or altered. Gemcuts Pty Ltd will issue a new SDS when there is a change in the product specifications and/or with the National Occupational Health and Safety Commission guidelines/ regulations. Gemcuts Pty Ltd will not accept any responsibility for any changes made to its SDS in content by any other person or organisation.

CLASSIFICATION OF MATERIAL

This material is hazardous according to health criteria of Worksafe Australia

1. IDENTIFICATION OF THE MATERIAL & SUPPLIER

Product	Epoxy 220B
Recommended Use	Curing Agent
Supplier/Importer	Gemcuts Pty Ltd
ABN	43 780 687 841
Manufacturer	Hughes Associates LLC
Address	36A Smith Drive, West Ballina NSW 2478
Telephone Number	02 66811686
Facsimile	N/A
Email	admin@gemcuts.com.au
Emergency Telephone	131126 Poisons Information Centre 0427012014

SAFETY DATA SHEET**2. HAZARDS IDENTIFICATION**

Signal Word: DANGER

2.1 Hazards Classification: Hazardous substance. Dangerous Goods

Skin corrosion/irritant – Cat 1A

Serious Eye damage/irritant – Cat 1

Respiratory sensitization – Cat 1

Skin Sensitization – Cat 1

Toxic to reproduction – Cat 2

STOT single eyes – Cat 1

STOT Chronic Skin, respiratory tract, liver kidney – Cat 1

2.2 Hazard Phrases:

H317: May cause an allergic skin reaction

H318: Causes serious eye damage

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

H361F: Suspected of damaging fertility

H361D: Suspected of damaging the unborn child

H370: Causes damage to organs (eyes)

H372: Causes damage to organs through prolonged or repeated exposure (skin, respiratory tract, kidneys, liver)

2.3 Precautionary Phrase(s)

P201: Obtain special instructions

P202: Do not handle until all safety precautions have been read and understood

P281: Use PPE as required

P280: Wear protective gloves/clothing/eye protection/face protection

P285: In case of inadequate ventilation wear respiratory protection

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P264: Wash hands thoroughly after handling

P272: Contaminated work clothing should not be allowed out of the workplace

P314: Get medical advice/attention if you feel unwell.

P307: IF exposed:

P311: Call a POISON CENTER or doctor

P304: IF INHALED:

P340: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Hazards Identification Continued...

P310: Immediately call a POISON CENTER or doctor/physician

P342: If experiencing respiratory symptoms:

P311: Call a POISON CENTER or doctor

P301: IF SWALLOWED:

P310: Immediately call a POISON CENTER or doctor/physician

P330: Rinse mouth

P331: Do NOT induce vomiting

P303: IF ON SKIN (or hair)

P353: Rinse skin with plenty of water

P363: Wash contaminated clothing before reuse

P310: Immediately call a POISON CENTER or doctor/physician

P302: IF ON SKIN:

P351: Rinse cautiously with water for several minutes

P338: Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a POISON CENTER or doctor/physician

P405: Store locked up

P501: Dispose of contents/container in accordance with local, regional, national and international regulations

Emergency Overview: If symptoms persist or you are concerned always seek medical attention.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.3 Product Description: Reddish-Brown Liquid. Amine odour.

3.4 Contents

Chemical Name	CAS Number	Proportion %
Epikure 3125	68410-23-1	Unknown
Triethylenetetramine	112-24-3	Unknown
Nonyl Phenol	84852-15-3	Unknown
Benzyl Alcohol	100-51-6	Unknown

The 220B curing agent is a mixture of the above four components. The percentage of each of these ingredients is Proprietary information There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment.

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre,

Phone (Australia) 131 126

Inhalation: Remove promptly to fresh air. Medical attention should be sought immediately. Keep at rest in a comfortable position for breathing. Rescuer should have appropriate breathing respirator if fumes are still present. If not breathing, artificial respiration should be given. If unconscious, place in the recovery position and get medical attention. Maintain an open airway, loosen clothing if required. In the case of inhalation of decomposition product in a fire, symptoms may be delayed. The exposed person should be kept under medical supervision for 48Hrs.

Skin Contact: Immediately remove contaminated clothing. Wash skin with water and soap. Contact a poisons centre and seek medical attention. Continue to rinse skin with water for another 10mins. Chemical burns should be treated promptly by a doctor. Launder contaminated clothing before re-use. If skin disorder develops seek medical attention.

Eye Contact: Flush eye with running water for a minimum of 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing lifting eye lids periodically. Seek medical attention promptly. Chemical burns must be treated by a doctor.

Ingestion: Rinse mouth. Get medical attention immediately. Call a poison centre. Remove dentures if any. Remove victim to fresh air and keep at rest in a comfortable position for breathing. If conscious, give small amounts of water to drink. Stop if victim feels unwell. Never give anything my mouth to an unconscious person. If unconscious, place in recovery position and seek medical

First Aid Measures Continued...

attention. Maintain an open airway.

Note to Doctor: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed persons may need to be kept under medical surveillance for 48Hrs.

5. FIRE FIGHTING MEASURES

5.3 Explosion Hazard: None noted. Heat may cause container to expand and burst.

5.4 Fire Fighting Advice: Full fire kit and breathing apparatus is required. If safe to do so, remove containers from path of fire.

5.3 Suitable Extinguishing Media: Use suitable extinguishing media for surrounding fire.

5.4 Hazardous Decomposition: Carbon dioxide, carbon monoxide and nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Emergency Action: Isolate the area and remove any persons not involved in the clean-up. Avoid breathing vapours. Contain the spill for salvage or absorb in inert absorbent material (e.g. Soil, sand, vermiculite) for disposal by an approved method. Small spills can be picked up with a dry material or vermiculite. Large spills need to be first contained then picked up with sand, earth or vermiculite. Prevent run-off into drains, water ways and soil. If contamination of sewers or waterways has occurred, advise the local emergency services.

Use appropriate personal protective measures (section 8) and keep area well ventilated. Be wary of confined spaces and fumes given off.

Never return spills to the original container for reuse.

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7. HANDLING & STORAGE

7.1 Handling Advice: Use in well ventilated areas or use appropriate respirator if unable to do so. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor. Wash thoroughly after handling. Avoid release to the environment. Do not eat, smoke or drink around the area where it is handled.

For PPE see section 8

If any history of asthma, respiratory disease, skin sensitization or pregnant should not be employed to handle this product.

Do not handle unless all safety precautions have been read and understood.

Empty containers contain residue which can be hazardous. Do not reuse container.

7.2 Storage Advice: Store in original container closed tightly. Store away from sunlight in a dry, cool and well-ventilated area away from incompatible materials. See Section 10. Do not store in an unlabelled container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.4 Occupational Exposure Limits: National Occupational Exposure Standard (NES), Safe Work Australia (formerly ASCC/NOHSC).

Triethylenetetramine(3,6-diazaoctanethylenediamin) 112-24-3 Safework Australia has no exposure standards set at time of publication.

CEL TWA: 1 ppm, 6 mg/m³; STEL: 2 ppm, 12 mg/m³ [compare OEL TWA (Sweden): 1 ppm, 6 mg/m³; STEL: 2 ppm, 12 mg/m³ Sensitiser]

8.5 Engineering Control Measures: Ensure ventilation is adequate to maintain air quality.

Use with local exhaust ventilation and mechanical ventilation, wear an air purifying respirator if not able to do so.

8.6 Personal Protective Equipment:

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, APPROVED AIR RESPIRATOR.

Avoid eye contact by wearing chemical goggles with side-shields or face-shield (AS/NZS 1336) whenever exposed to vapour or mist or if there is a risk of splashing liquid in the eyes. Safety showers with eyewash should be provided in all areas where product is handled.

Protective clothing (gloves, coveralls, boots, etc.) should be worn to prevent skin contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. Contaminated clothing should not leave the workplace.

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9. PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Reddish/Brown
Odour:	Amine
Solubility:	Not available
Density	0.97
Flash Point (°C):	220°C
Melting/Freezing Point (°C)	Not available
Vapour Density (Air=1)	1

10. STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Extreme temperatures and direct sunlight.

Hazardous Reactions: Hazardous polymerisation will not occur under normal conditions.

Incompatible Materials: Will react with strong oxidizing agents.

Hazardous Decomposition: None produced under normal storage and use.

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11. TOXICOLOGY INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Toxicity: Fatty Acids, C18-unsat, dimers, reaction products with polyethylene polyamines.

LD50 Oral Rat >5000mg/kg

Triethylenetetramine

LD50 Oral Rat 2500mg/kg

Ingestion: Causes severe burns to the mouth, throat and stomach.

Eye Contact: Causes serious eye damage.

Skin Contact: Contact with skin may result in irritation and redness. May cause an allergic skin reaction.

Inhalation: Can be irritating or corrosive to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties. Serious effects may be delayed following exposure.

Chronic Exposure: May cause damage to organs through prolonged or repeated exposure. Once sensitized an allergic reaction may occur with exposure to very low levels.

Carcinogen: Not known to be

Mutagenicity: Not known to be

Reproductive Toxicity: Suspected of damaging the unborn child. Reduced foetal weight and increase in foetal deaths,

12. ECOLOGICAL INFORMATION

Ecotoxicity:

3,6-diazaoctanethylenediamin

Acute LC50 33.9mg/L Fresh water Aquatic Vertebrates, Water flea 48H

Acute EC50 3.7mg/L Fresh water Aquatic plants, Green Algae 96H

Degradability: No data

Bio accumulative Potential: Epikure LogPow 3 High Potential

Mobility in Soil: No Data

13 DISPOSAL CONSIDERATIONS

Waste should be minimised.

Care should be taken in handling emptied containers.

Product must be contained and not disposed to the sewerage systems, drains or waterways.

Dispose of in accordance with Local/State/Commonwealth regulations.

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14. TRANSPORT INFORMATION

14.3 **Road and Rail Transport:** ADG
Not Regulated

14.4 **Marine Transport:** IMDG
Not Regulated

14.3 **Air Transport:** IATA
Not Regulated

15. REGULATORY INFORMATION

Australian Dangerous Goods Code, No. 6 [National Road Transport Commission]
Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]

ASNZS 1715/16 Respiratory protective devices.

Safe Work Australia

IATA

IMDG

NES

16. OTHER INFORMATION

This MSDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Gemcuts Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact Gemcuts Pty Ltd at the contact details on page 1.

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