GEMCUTS PTY LTD

Date of Issue 7-04-2020

SAFETY DATA SHEET OPTICON 224

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 Safe Work Australia

1. IDENTIFICATION OF THE MATERIAL & SUPPLIER

Product	Opticon 224
Recommended Use	Sealer
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

2. HAZARDS IDENTIFICATION

WARNING: Danger

2.1 Hazards Classification:

Flammable Liquid: Cat 4

Skin Corrosion/Irritant: Cat 2

Serious Eye Damage/Irritant: Cat 2A

Skin Sensitization: Cat 1

Germ Cell Mutagenicity: Cat 2

Carcinogenicity: Cat 2

STOT Single Exposure (eyes): Cat 2

STOT Repeated Exposure (skin, respiratory tract): Cat 1

2.2 Hazard Category:

Hazardous Substance, Dangerous Good.

2.3 Hazard Phrase(s):

H227: Combustible liquid

H315: Causes skin irritation

H317: May cause an allergic skin reaction

H319: Causes serious eye irritation

H341: Suspected of causing genetic defects

H351: Suspected of causing Cancer

H371: May cause damage to organs (eyes)

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

2.4 Precautionary Phrase(s):

P201: Obtain special instructions before use.

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

P210: Keep away from heat/sparks/open flames/Hot surfaces – No smoking.

P260: Do not breathe dust/fumes/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 attention if you feel unwell

P311: Call a POISON CENTRE or doctor

P302: IF ON SKIN

Hazards Classification Continued...

P352: Wash with plenty of soap and water

P362: Take off contaminated clothing and wash before reuse

P333+P313: If skin irritation/rash occur get medical attention

P305: IF IN EYES

P351: Rinse cautiously with water for several minutes

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

P337+P313: If eye irritation persists get medical attention

P405: Store locked up

P403: Store in a well-ventilated area

P235: Keep cool

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

Emergency Overview: Always seek medical attention if unwell or irritated using this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Product Description: Mixture

3.2 Contents

Chemical Name	CAS Number	Proportion %
4,4'-Isopropylidenediphenol- Epichlorohydrin Copolymer	25068-38-6	70-90
Oxirane, 2 Butoxy methyl	2426-08-6	12.5-15

No further chemicals Known to the supplier 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: If inhaled, remove from area to fresh air and keep at rest in a comfortable position.

Administer artificial respiration if not breathing. Get medical attention.

If unconscious place in recovery position and get medical attention.

Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Skin Contact: Wash contaminated clothing immediately then remove and wash skin with soap and water for at least 10mins. Wash clothes before reuse. Seek medical attention if needed or concerned.

Eye Contact: Rinse thoroughly with plenty of water and occasionally lifting the eye lids for at least 10 minutes and get medical attention.

Ingestion: Do not induce vomiting. Remove victim to fresh air and keep at rest. If conscious give small amounts of water. Stop if exposed person is feeling sick as vomiting can be dangerous. Seek medical attention. Never give anything by mouth to an unconscious person If spontaneous vomiting occurs, hold the victim's head lower than hips to prevent aspiration. Loosen clothing such as a tie, collar or belt.

Seek immediate medical assistance if symptoms persist or in the case of over exposure.

Notes to Doctor: Treat symptomatically. Contact Poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE FIGHTING MEASURES

- **5.1** Explosion Hazard: Combustible liquid. In a fire or if heated, pressure increase will occur and the container may burst with a risk of subsequent explosion. The vapour is heavier than air and will spread along the ground
- 5.2 Fire Fighting Advice: Fire fighters should use self-contained breathing apparatus.
- **5.3** Suitable Extinguishing Media: Carbon dioxide, Dry chemical, foam. Do not use water jet.

6. ACCIDENTAL RELEASE MEASURES

Emergency Action: Avoid breathing vapours, touching the chemical and evacuate surrounding area if not an emergency responder.

Wear appropriate PPE and remove all ignition sources.

Prevent spill from entering drainage/sewer systems, waterways and surface water.

For small spills: Absorb with an inert dry material and dispose of appropriately

For large spills: Stop leak if without risk. Move containers from spill area. Wash spillage into effluent treatment plant or absorb material with sand, earth or vermiculite and dispose of with local regulations.

7. HANDLING & STORAGE

- 7.1 **Handling Advice:** Use appropriate PPE. Avoid breathing vapours or mists. Avoid contact with the skin and the eyes. Wash thoroughly after handling. Ground container when pouring. Do not use near heat, sparks and open flame. Provide appropriate ventilation/respiratory protection. Read all safety instructions before handling. Do not reuse empty containers.
- **7.2 Storage Advice:** Store away from heat and ignition sources. Keep in a cool and dark place. Keep containers closed when not in use. Store in segregation in an approved area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Occupational Exposure Limits:

Oxirane, 2-butoxymethyl 2426-08-6 TWA 133mg/m3 STEL 2375mg/m3

8.2 Engineering Control Measures: Eye wash station. Local and mechanical exhaust ventilation as necessary to control any air contaminants to within their exposure limits. Use explosion proof ventilation equipment.

8.3 Personal Protective Equipment:

CHEMICAL RESISTANT GLOVES, CHEMICAL GOGGLES OR FACE SHIELD, APRON OR OVERALLS, ENCLOSED BOOTS, AIR RESPIRATOR

Complete personal protection from exposure of both contact and inhalation should be taken especially in prolonged contact.

Continue to have good industrial hygiene and wash up after using the chemical.

Contaminated clothing should be left onsite and washed before reuse.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Yellow
Odour:	Not Available
Size (millimetres)	Approx. 100mm x 150mm
Weight (grams)	400g
Solubility:	Negligible
Density	1.13
Boiling Point (°C):	Not Available
Flash Point (°C)	73°C

10. STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions and use.

Conditions to Avoid: Heat and ignition source. Do not allow vapour to accumulate in confined spaces.

Hazardous Reactions: Will not occur under normal use. **Incompatible Materials:** Avoid contact strong oxidizers.

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:

4,4'-Isopropylidenediphenol-Epichlorohydrin Copolymer 25068-38-6 LD50 Oral Rat 11400mg/kg LD50 Dermal Rat 2000mg/kg

Oxirane, 2-butoxymethyl 2426-08-6 LD50 Oral Rat 1660mg/kg LC50 Inhalation Rat 8hr

Potential Chronic Health Effects:

General: Causes damage to organs through prolonged or repeated exposure, Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels Carcinogenicity: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. Contains less than 0.1% of a chemical known to cause cancer. Mutagenicity: Suspected of causing genetic defects.

12. ECOLOGICAL INFORMATION

Bisphenol-A-(epichlorohydrin)

Acute LC50 1.3mg/L Acute Toxicity Fish 96H

Acute EC50 2.1mg/L Acute immobilisation and reproduction Aquatic Invertebrates 48H

Acute NOEC 0.3mg/L Reproduction Aquatic Invertebrates 21d

Acute LC50>11mg/L Aquatic Plants 72H

Butyl glycidyl ether

Acute EC50 3.9mg/L freshwater Aquatic Invertebrates 48H

Mobility in Soil: Not Available

13 DISPOSAL CONSIDERATIONS

Commonwealth, State and Local laws governing disposal of material can differ. Ensure proper disposal compliance with the proper authority before disposal.

Do not allow in waterways.

Care should be taken with emptied containers. Do not cut, weld or grind. Clean thoroughly.

14. TRANSPORT INFORMATION

ADG:

Proper shipping name: Combustible Liquid, N.O.S. (Oxirane, 2-Butoxymethyl-)

Technical name: N/A UN/ID Number: 1993 Packing group: III

IMDG: Not regulated **IATA:** Not regulated

15. REGULATORY INFORMATION

Work Health and Safety Regulation 2017 Chapter 3 Part 3.2 Division 7 Managing risks from airborne contaminants
Safe Work Australia HCIS

IMDG NTC

GHS

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 8-04-2020

SAFETY DATA SHEET OPTICON HARDENER

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 Safe Work Australia

1. IDENTIFICATION OF THE MATERIAL & SUPPLIER

Product	Opticon Hardener
Recommended Use	Curing Agent 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

2. HAZARDS IDENTIFICATION

WARNING: Danger

2.1 Hazards Classification:

Acute Toxicity, Oral: Cat 4

Acute Toxicity, Dermal: Cat 4

Skin Corrosion/Irritation: Cat 1A

Serious Eye Damage/Irritant: Cat 1

Respiratory Sensitization: Cat 1

Skin Sensitization: Cat 1

Toxic to reproduction: Cat 2

STOT Single Exposure (eyes): Cat 1

STOT Repeated Exposure (skin, kidneys, liver): Cat 1

Hazardous to the Aquatic environment (chronic) Cat 3

2.2 Hazard Category:

Hazardous Substance, Dangerous Good.

2.3 Hazard Phrase(s):

H302: Harmful if swallowed

H312: Harmful in contact with skin

H314: Causes severe skin burns and eye damage

H318: Causes serious eye damage

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

H317: May cause an allergic skin reaction

H361: Suspected of damaging fertility or the unborn child

H361d: Suspected of damaging the unborn child

H370: Causes damage to organs (eyes)

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

H412: Harmful to the aquatic life with long-lasting effects

2.4 Precautionary Phrase(s):

P201: Obtain special instructions before use.

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

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

Hazard Identification Continued...

P281: Use PPE as required

P285: In case of inadequate ventilation wear respiratory protection

P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P264: Wash Hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product

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

P314: Get medical attention if you feel unwell

P311: Call a POISON CENTRE or doctor

P304: IF INHALED

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

P310: Immediately call a POISON CENTRE or doctor

P342: If experiencing respiratory symptoms:

P311: Call a POISON CENTRE or doctor

P310: IF SWALLOWED:

P310: Immediately call a POISON CETNRE or doctor

P330: Rinse Mouth

P331: Do NOT induce vomiting

P302: IF ON SKIN (or hair):

P361: Take off immediately all contaminated clothing

P353: Rinse skin with water (or shower)

P363: Wash contaminated clothing before re-use

P310: Immediately call a POISON CETNRE or doctor

P302: IF ON SKIN:

P352: Wash with plenty of soap and water

P312: Call a POSION CENTRE or doctor if you feel unwell

P333+P313: If skin irritation/rash occur get medical attention

P305: IF IN EYES

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 CETNRE or doctor

P405: Store locked up

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

Emergency Overview: Always seek medical attention if unwell or irritated using this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.3 **Product Description:** Substance

3.4 Contents

Chemical Name	CAS Number	Proportion %
Triethylenetetramine	112-24-3	100

No further chemicals Known to the supplier are classified as hazardous to health or the environment

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre,

Phone (Australia) 131 126

First respondent/rescuer: If suspected fumes are still present then use of an appropriate respirator is highly recommended. Wash contaminated clothing and wear gloves if possible.

Inhalation: If inhaled, Get medical attention immediately. Remove from area to fresh air and keep at rest in a comfortable position. Administer artificial respiration if not breathing.

If unconscious place in recovery position and get medical attention.

Get medical attention if respiratory irritation develops or if breathing becomes difficult.

Maintain a open airway. Expose persons may need to be kept under medical surveillance for 48hrs.

Skin Contact: Get medical attention immediately, Call a poison centre. Wash contaminated clothing immediately then remove and wash skin with soap and water for at least 10mins. Chemical burns must be treated promptly. Wash clothes before reuse.

Eye Contact: Get medical attention immediately. Immediately Rinse thoroughly with plenty of water and occasionally lifting the eye lids for at least 10 minutes. Chemical burns must be treated by a doctor promptly.

Ingestion: Get medical attention immediately. Call a Poison centre. Wash out mouth with water. Remove dentures if any. Do not induce vomiting. Remove victim to fresh air and keep at rest. If conscious give small amounts of water. Stop if exposed person is feeling sick as vomiting can be dangerous. Seek medical attention. Never give anything by mouth to an unconscious person If spontaneous vomiting occurs, hold the victim's head lower than hips to prevent aspiration. Loosen clothing such as a tie, collar or belt.

Seek immediate medical assistance if symptoms persist or in the case of over exposure.

Notes to Doctor: Treat symptomatically. Contact Poison treatment specialist immediately if large

First Aid Measures Continued...

quantities have been ingested or inhaled.

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

5. FIRE FIGHTING MEASURES

- **5.4** Explosion Hazard: In a fire or if heated, pressure increase will occur, and the container may burst.
- **5.5** Fire Fighting Advice: Fire fighters should use self-contained breathing apparatus.
- **5.6** Suitable Extinguishing Media: Use an extinguishing agent suitable to the surrounding fire.
- **5.7** Hazardous Thermal Decomposition: May include carbon dioxide, carbon monoxide and nitrogen oxides

6. ACCIDENTAL RELEASE MEASURES

Emergency Action: Avoid breathing vapours, touching the chemical and evacuate surrounding area if not an emergency responder.

Wear appropriate PPE and remove all ignition sources.

Prevent spill from entering drainage/sewer systems, waterways, surface water and soil. If product has caused environmental pollution, contact the relevant authorities.

For small spills: Absorb with an inert dry material and dispose of appropriately

For large spills: Stop leak if without risk. Move containers from spill area. Wash spillage into effluent treatment plant or absorb material with sand, earth or vermiculite and dispose of according to local regulations.

7. HANDLING & STORAGE

7.3 **Handling Advice:** Use appropriate PPE. Do not breath vapours or mists. Avoid contact with the skin and the eyes. Avoid exposure during pregnancy. Do not ingest. Wash thoroughly after handling. Provide appropriate ventilation/respiratory protection. Read all safety instructions before handling. Do not reuse empty containers.

Any persons with a history of asthma, skin sensitization or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

No eating, drinking and smoking in areas used for handling this material. Go industrial hygiene is essential.

7.4 Storage Advice: Keep in a cool and dark place that is well ventilated away from incompatible material. Keep containers closed when not in use. Store in segregation in an approved area. Store locked up. Do not store in an unlabelled container. Carefully re-seal container and keep upright when storing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.4 Occupational Exposure Limits:

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: Eye wash station. Local and mechanical exhaust ventilation as necessary to control any air contaminants. An approved self-contained breathing apparatus (SCBA) may be required in some situations.

8.6 Personal Protective Equipment:

CHEMICAL RESISTANT GLOVES, CHEMICAL GOGGLES OR FACE SHIELD, APRON OR OVERALLS, ENCLOSED BOOTS, AIR RESPIRATOR

Complete personal protection from exposure of both contact and inhalation should be taken especially in prolonged contact.

Continue to have good industrial hygiene and wash up after using the chemical.

Contaminated clothing should be left onsite and washed before reuse.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Yellow
Odour:	Amine
PH	10-12
Size (millimetres)	Approx. 70mm x 20mm
Weight (grams)	60g
Solubility:	Soluble
Density	0.98
Vapour Density	5
Boiling Point (°C)	277°C
Flash Point (°C)	122°C Closed Cup

10. STABILITY & REACTIVITY

Chemical Stability: Stable under normal conditions and use.

Conditions to Avoid: Heat and ignition source. Exposure to water vapour. Do not allow vapour to accumulate in confined spaces.

Hazardous Reactions: Will not occur under normal use.

Incompatible Materials: No Specific Data.

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:

Triethylenetetramine 112-24-3 LD50 Oral Rat 2500mg/kg

STOT Single Cat 1 eyes
STOT Repeated Cat1 Respiratory tract
Cat2 Skin, Liver and Kidneys

Potential Acute Health Effects:

Eyes: Serious eye damage.

Inhalation: Vapour may be irritating or corrosive to the respiratory system. Serious effects may be delayed. Reduced foetal weight

Skin: Causes inflammation and severe burns in contact. Blisters and redness. Increase in fetal deaths.

Ingestion: Can cause burns to the mouth and harmful if swallowed. Stomach pains. Reduced foetal weight, increase in foetal deaths and skeletal malformations.

Potential Chronic Health Effects:

General: Causes damage to organs through prolonged or repeated exposure. Once sensitized, a sever allergic reaction may occur subsequently exposed to very low levels.

Carcinogenicity, No known significant effects Mutagenicity, No known significant effects Teratogenicity, Suspected of damaging the unborn child Fertility, Suspected of damaging fertility Developmental, No know significant effects

12. ECOLOGICAL INFORMATION

3,6-diazaoctanethylenediamin

Acute LC50 33.9mg/L Fresh water Aquatic invertebrates, Water flea 48H Acute EC50 3.7mg/L Fresh water Aquatic plants, green algae 96H

Bio accumulative potential: Low Mobility in Soil: Not Available

13 DISPOSAL CONSIDERATIONS

Generation of waste should be minimised.

Commonwealth, State and Local laws governing disposal of material can differ. Ensure proper disposal compliance with the proper authority before disposal.

Do not allow in waterways or soil.

Care should be taken with emptied containers that haven't been cleaned or rinsed out.

14. TRANSPORT INFORMATION

ADG:

Proper shipping name: Triethylenetetramine

UN/ID Number: 2259 Packing group: II

Class: 8

IMDG:

Proper shipping name: Triethylenetetramine

UN/ID Number: 2259 Packing group: II

Class: 8

IATA:

Proper shipping name: Triethylenetetramine

UN/ID Number: 2259 Packing group: II

Class: 8

15. REGULATORY INFORMATION

Work Health and Safety Regulation 2017 Chapter 3 Part 3.2 Division 7

Managing risks from airborne contaminants

Safe Work Australia HCIS

IMDG

NTC

GHS

AICS

16. OTHER INFORMATION

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