SAFETY DATA SHEET

Prepared according to USA OSHA Hazcom 2012 / Canada WHMIS 2015



Date Prepared: 12/21/2015

MSDS No: XE89_PART B_EPOXO 89 Plastic Surgery_ENG

XE89 Part B SURE SEAL Plastic Surgery - EPOXO 89

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: XE89 Part B SURE SEAL Plastic Surgery - EPOXO 89

Product Description: Part B EPOXO 89 SURE SEAL Plastic Surgery, 220 g / 7.75 oz

General Use : Curing Agent for Epoxy adhesive / sealant

Product Stock/Code : XE89 / 4019 (Kit: 440 g / 15.5 oz)

Chemical Family: Mercaptan

Molecular Formula : Mixture / Mélange

Manufacturer / Supplier

Dominion Sure Seal Ltd. 6175 Danville Road, Mississauga

Ontario, Canada L5T 2H7 Fax: 905-670-5174

www.dominionsureseal.com

Customer Service: 905-670-5411

Emergency Telephone Numbers (24 hour)

CANUTEC : (613) 996-6666 CHEMTREC : (800) 424-9300

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Skin Irritation, Category 2 Eye Irritation, Category 2

Specific Target Organ Toxicity - Single Exposure, Category 3 (Respiratory Tract Irritation)

Carcinogenicity, Category 2

GHS LABEL

Hazardous components for labelling:

Mercaptan terminated polymer, 2,4,6-Tris(dimethylaminomethyl) phenol and Titanium dioxide.







Health hazard

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H315: Causes skin irritation.

H319: Causes serious eye irritation. H335: May cause respiratory irritation.

H351: Suspected of causing cancer.

PRECAUTIONARY STATEMENT(S)

Prevention:

P201: Obtain special instructions before use.

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

P261: Avoid breathing dust or vapours.

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

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves and eye protection.

Response:

P308+P313: IF exposed or concerned: Get medical advice/ attention.

P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice/attention.

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

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

Storage:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal:

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

Emergency Overview

Immediate Concerns:

Causes serious eye irritation. Causes skin irritation. May cause respiratory irritation. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting. Suspected of causing cancer by dust inhalation.

Hazards Not Otherwise Classified:

May be harmful if swallowed or in contact with skin. (2,4,6-Tris(dimethylaminomethyl) phenol)

Comments:

<5 % of the mixture consists of an ingredient or ingredients of unknown acute toxicity.

See sections 9 and 10 for more detailed information on physicochemical effects.

See section 11 for more detailed information on health effects.

See sections 12 for more detailed information on environmental effects.

This product is a consumer product and is labeled in accordance with the Canadian Consumer Chemicals and Containers Regulations and US Consumer Product Safety Commission regulations which take precedence over Canadian WHMIS 2015 and OSHA Hazcom 2012 Hazard Communication labeling. The actual container label will not include the above label elements. The labeling above applies to products used solely for industrial / professional use.

3. COMPOSITION / INFORMATION ON INGREDIENTS

XE89 Part B SURE SEAL Plastic Surgery - EPOXO 89

Chemical Name	Wt.%	CAS No.
Mercaptan terminated polymer	38 - 40	101359-87-9
Talc	28 - 31	14807-96-6
Barium sulfate	16 - 18	7727-43-7
Calcium carbonate	5 - 5.5	1317-65-3
2,4,6-Tris(dimethylaminomethyl) phenol	3 - 5	90-72-2
Titanium dioxide	2 - 3	13463-67-7

Comments: There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the product and hence require reporting in this section.

4. FIRST AID MEASURES

Eye Contact:

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention, if irritation persists.

Skin Contact

Wash with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing and wash before reuse.

Ingestion:

Do not induce vomiting. Rinse mouth with water. Give 1 to 2 glasses of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

Inhalation:

No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If you experience eye watering, headaches or dizziness, increase fresh air or leave the area.

Signs and Symptoms of Overexposure

Eye Contact:

Contact causes serious eye irritation. Symptoms may include pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

Skin Contact:

Causes skin irritation. Prolonged contact with this product can cause reddening, swelling, rash scaling or blistering.

Ingestion:

Substance may be harmful if swallowed. May cause irritation. Symptoms of ingestion may include abdominal pain, nausea, vomiting and diarrhea.

Inhalation:

May be irritating to the eyes, nose, throat, and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting.

Additional Information:

No data available.

5. FIRE FIGHTING MEASURES

Flammable Properties:

Will burn if involved in a fire.

Extinguishing Media:

Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material. Use an extinguishing agent suitable for the surrounding fire.

Hazardous Combustion Products:

During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Fire Fighting Procedures:

Containers can build up pressure if exposed to heat (fire).

Fire Fighting Equipment:

As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

Sensitivity to Static Discharge:

Product is not sensitive to static discharge.

Sensitivity to Mechanical Impact:

Product is not sensitive to mechanical impact.

6. ACCIDENTAL RELEASE MEASURES

Small Spill:

Ensure adequate ventilation. Cover spill area with suitable absorbent material (e.g., sand, earth, sawdust, vermiculite, Oil-Dri, Kitty Litter, etc.). Sweep up material being careful not to raise dust. Place in an appropriate disposal container and seal tightly. Avoid contact with eyes, skin, and clothing.

Environmental Precautions

Water Spill:

Do not flush to sewer.

Land Spill:

Avoid runoff into storm sewers and ditches which lead to waterways.

Special Protective Equipment:

Clean up spills immediately, observing precautions in Protective Equipment section 8.

7. HANDLING AND STORAGE

General Procedures:

Ensure thorough ventilation of stores and work areas.

Handling:

Use only with adequate ventilation. Avoid breathing vapour. Avoid contact with eyes, skin, and clothing. Wear recommended personal protective equipment. After handling, always wash hands thoroughly with soap and water.

Storage:

Store away from heat, sparks, open flames, strong oxidizing agents and direct sunlight. Protect from physical damage. Keep containers tightly closed, when not in use. Store in a cool place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		Occupational Exposure Limits					
		OSHA PEL		ACGIH TLV		NIOSH REL	
Chemical Name		ppm	mg/m³	ppm	mg/m³	ppm	mg/m³
Mercaptan terminated polymer	TWA	[1]	[1]	[1]	[1]	[1]	[1]
Talc	TWA	[2]	2 [2]	[2]	2 [2]	[2]	2 [2]
Barium sulfate	TWA	[3]	5 [3]	[2]	5 [2]	[4]	5 [4]
Calcium carbonate	TWA	[5]	15 ^[5]	[5]	10 [5]	[1]	[1]
2,4,6-Tris(dimethylaminomethyl) phenol	TWA	[1]	[1]	[1]	[1]	[1]	[1]
Titanium dioxide	TWA	[5]	15 ^[5]	[5]	10 [5]	[1]	[1]

Footnotes:

- 1. NL: This material does not have established exposure limits.
- 2. Dust respirable fraction.
- 3. Dust respirable fraction (15 mg/m³ total inhalable).
- **4.** Dust respirable fraction (10 mg/m³ total inhalable).
- 5. Dust total fraction.

Engineering Controls:

Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits. If user operations generate dust during sanding of this product, use ventilation to keep exposure to airborne dust below the above exposure limits. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Personal Protective Equipment

Eves and Face:

Wear safety glasses with side shields (or goggles). Contact lenses should not be worn when working with this product. Eye wash fountains should be readily available to areas of use and handling.

Skin Contact:

Wear chemical resistant gloves.

Respiratory:

In case of insufficient ventilation, wear suitable respiratory equipment. NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Protective Clothing:

Wear protective clothing as necessary to prevent contact.

Work Hygienic Practices:

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled dothing/wash thoroughly before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Liquid

Odor : Mercaptan odor, stench

Odor Threshold : No data available.

Appearance: Viscous thixotropic paste

Color : Beige, off-white

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pH : No data available.

% Volatiles : < 0.2% w/w

Flash Point and Method : > 124 °C Closed Cup

Flammable Limits: No data available.

Autoignition Temperature: No data available.

Vapor Pressure: No data available.

Vapor Density: No data available.

Boiling Point : No data available.

Freezing Point : No data available.

Melting Point : Not Applicable

Solubility in Water: Practically insoluble

Evaporation Rate

(n-butyl acetate = 1) : No data available.

Density : 1.55 ± 0.03 g/ml at 20°C

Viscosity :> 200000 cps at 20°C

VOC Content : Summarized below.

Oxidizing Properties : None

Comments:

VOC Compliance Statement

Part B VOC Content: Less Exempts: < 2.5 g/l (< 0.021 lb/gal)

Total Material: < 2.5 g/l (< 0.021 lb/gal)

Part B Density: $1.55 \pm 0.05 \text{ g/ml}$

Part B Total Volatiles: < 0.2 % w/w

Part B Exempt Content: 0 % w/w; 0% v/v

VOC Regulation: CARB-California, OTC state, Canada proposed Consumer Product

Regulations

Coating Category: Sealant or Caulking Compound, Chemically Curing, non-

aerosol

Mixed Kit VOC Content: < 0.4 % w/w

Less Exempts: < 5.0 g/l (< 0.04 lb/gal)Total Material: < 5.0 g/l (< 0.04 lb/gal)

The product VOC content meets the current 3% w/w limit under the CARB Consumer Product Regulations for Sealant or Caulking Compound, Chemically Curing, non-aerosol. 50 State compliant.

Note: In California this product is exempt under Adhesives and Sealants district rules (meets small container exemption - packaged in ≤475 ml (16 fl oz) cartridges) but is covered by the CARB Consumer Product Regulation.

10. STABILITY AND REACTIVITY

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Reactive Hazard: No

Hazardous Polymerization:

Not expected to occur.

Stability:

Stable.

Conditions to Avoid:

Keep away from flames and any object that sparks.

Possibility of Hazardous Reactions:

No data available.

Hazardous Decomposition Products:

By fire and high heat: Carbon monoxide, Carbon dioxide, Oxides of nitrogen and other undetermined compounds.

Incompatible Materials:

Oxidizing materials.

11. TOXICOLOGICAL INFORMATION

Product Acute Toxicity

Chemical Name	ORAL LD ₅₀ mg/kg(rat)	DERMAL LD ₅₀ mg/kg(rabbit)	INHALATION LC ₅₀ mg/l
Mercaptan terminated polymer	> 2000 Based on similar compounds.	> 2000 Based on similar compounds.	>10(rat;4h) Based on similar compounds.
Talc	Not classified.	Not classified.	Not classified.
Barium sulfate	Not classified.	Not classified.	Not classified.
Calcium carbonate	Not classified.	Not classified.	Not classified.
2,4,6-Tris(dimethylaminomethyl) phenol	1200, 2500, 2169, 1673	1400(rbt), 1280(rat)	>0.5(rat;1h)
Titanium dioxide	> 10,000	No data available.	No data available.

Acute Toxicity - Dermal LD₅₀: The calculated ATE is >2000 mg/kg.

Notes:

Based on available ingredient data, the classification criteria for Acute Dermal Toxicity are not met for this mixture. Slightly toxic. May be harmful in contact with skin.

Acute Toxicity - Oral LD₅₀: The calculated ATE is >2000 mg/kg.

Notes:

Based on available data, the classification criteria for Acute Oral Toxicity are not met for this mixture. Slightly toxic. May be harmful if swallowed.

Acute Toxicity - Inhalation LC₅₀: Not Established

Notes:

The mixture is not classified due to inconclusive data. Some data exist, but the data are not sufficient for classification. An estimate based on component information. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting.

Toxicological Data:

< 5% of the mixture consists of an ingredient or ingredients of unknown acute toxicity. No additional toxicology information is available for this product itself. (See Component Toxicity Information).

Primary Routes of Entry:

Eye contact. Skin contact. Inhalation.

Eye Irritation / Serious Eye Damage:

Contains: Mercaptan terminated polymer and 2,4,6-Tris(dimethylaminomethyl) phenol. Contact causes serious eye irritation. The mixture is classified as: Eye Irritant, category 2, based on summation of ingredient data (>10% ingredients classified as eye irritant, category 2). Symptoms may include pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes.

Skin Irritation / Corrosion:

Contains: Mercaptan terminated polymer and 2,4,6-Tris(dimethylaminomethyl) phenol. Causes skin irritation. The mixture is classified as: Skin Irritant, category 2, based on summation of ingredient data (>10% ingredients classified as skin irritant, category 2). Prolonged contact with this product can cause reddening, swelling, rash scaling or blistering.

Carcinogenicity

Chemical Name	NTP Status	IARC Status	OSHA Status	Other
Mercaptan terminated polymer				
Talc		3		A4 (ACGIH)
Barium sulfate				
Calcium carbonate				
2,4,6-Tris(dimethylaminomethyl) phenol				
Titanium dioxide		2B		

Notes:

The mixture is classified as: Carcinogenicity, category 2 based on ingredient data using the applicable cut-off/concentration limits ($\geq 0.1\%$ ingredients classified as a Carcinogen, category 2). Titanium dioxide is listed as Group 2B (possibly carcinogenic to humans) Titanium dioxide: applies only to respirable dust. This product may be sanded during normal conditions of use and there may be potential exposure to respirable dust during such sanding operations.

Specific Target Organ Toxicity - Repeated Exposure:

Based on available data, the classification criteria for Specific Target Organ Toxicity - Repeated Exposure are not met for this mixture (< 1.0% ingredients classified as Specific Target Organ Toxicity - Repeated Exposure, category 1 or 2). Prolonged or repeated contact may cause skin irritation.

Respiratory / Skin Sensitizer.:

Based on available data, the classification criteria for skin/respiratory sensitization are not met for this mixture $(< 0.1\% \text{ ingredients dassified as a skin sensitizer, category 1 or sub-category 1A and } < 1.0\% \text{ ingredients classified as a skin/respiratory sensitizer, sub-category 1B}).}$

Reproductive Toxicity:

Based on available data, the classification criteria for Reproductive Toxicity are not met for this mixture (< 0.1% ingredients classified as Reproductive Toxicity, category 1 or 2).

Specific Target Organ Toxicity - Single Exposure:

Contains: Mercaptan terminated polymer. The mixture is classified as: Specific Target Organ Toxicity - Single Exposure, category 3, based on summation of ingredient data using the applicable cut-off/concentration limits (≥ 20% summation of all ingredients classified as Specific Target Organ Toxicity - Single Exposure, category 3). May be irritating to the eyes, nose, throat, and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation. Vapors may have a strong offensive odor which may cause headaches, nausea and vomiting.

Germ Cell Mutagenicity:

Based on available data, the classification criteria for Germ Cell Mutagenicity are not met for this mixture (< 0.1% ingredients classified as Germ Cell Mutagen, category 1A or 1B and < 1.0% ingredients classified as Germ Cell Mutagen, category 2).

Aspiration Hazard:

Based on available data, the classification criteria for Aspiration Hazard are not met for this mixture (< 10% ingredients classified as an Aspiration Hazard, category 1 and/or mixture viscosity $> 20.5 \text{ mm}^2/\text{s}$ at 40 °C).

12. ECOLOGICAL INFORMATION

Environmental Data:

No data available.

Ecotoxicological Information:

No data available.

Bioaccumulation/Accumulation:

No data available.

Distribution:

No data available.

Aquatic Toxicity (Acute):

No data available.

Chemical Fate Information:

No data available.

13. DISPOSAL CONSIDERATIONS

Disposal Method:

Comply with applicable local, state or international regulations concerning solid or hazardous waste disposal and/or container disposal. Do not discharge substance/product into sewer system.

Product Disposal:

Empty containers retain product residue; observe all precautions for product. Decontaminate containers prior to disposal.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: This product is not regulated.

Primary Hazard Class/Division: N/A

UN/NA Number : N/A

Packing Group : N/A

Marine Pollutant : No

Other Shipping Information: No data available.

Vessel (IMO/IMDG)

Shipping Name: This product is not regulated.

UN/NA Number : N/A

Primary Hazard Class/Division: N/A

Packing Group : N/A

Marine Pollutant : No

Note: No data available.

Canadian Transportation of Dangerous Goods Regulations

Shipping Name: This product is not regulated.

UN/NA Number : N/A
Primary Hazard Class/Division: N/A
Packing Group : N/A

TDG Note: No data available.

15. REGULATORY INFORMATION

UNITED STATES

SARA Section 311/312 Hazard Categories

Fire Hazard : No
Sudden Release of Pressure : No
Reactive Hazard : No
Product Acute Toxicity : Yes
Product Chronic Toxicity : Yes

EPCRA Section 313 Toxic Chemicals:

This product does not contain any listed toxic chemicals that exceed the threshold reporting levels established by SARA Title III, Section 313.

EPCRA Section 302 Extremely Hazardous Substances

EPCRA Status:

This product contains no listed extremely hazardous substances that are subject to the reporting requirements of SARA Title III, Section 302.

CERCLA Hazardous Substances and Reportable Quantities (RQ)

CERCLA Status:

This product contains no CERCLA listed hazardous substances.

TSCA (The Toxic Substances Control Act)

TSCA Status:

All components are included or are otherwise exempt from inclusion on this inventory.

CAA 112(b) - Hazardous Air Pollutants

CAA 112(r) - List of Substances for Accidental Release Prevention:

This product contains no chemicals subject to CAA 112(b) or CAA 112(r).

California Proposition 65

Chemical Name	Wt.%	Listed
Titanium dioxide	2 - 3	Cancer

OSHA Hazard Communication Standard (29 CFR 1910.1200):

OSHA Status: Hazardous Product (See Section 2 for details).

This product has been classified in accordance with the hazard criteria of the USA OSHA Hazard Communication Standard (29CFR 1910.1200) and the Safety Data Sheet contains all the information required by the OSHA Hazard Communication Standard (HazCom 2012).

CANADA

WHMIS Hazard Symbol and Classification

See Section 2 for details.

WHMIS Regulatory Status:

This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015).

WHMIS Classification:

WHMIS 2015 (Canada) Status: Hazardous Product (See Section 2 for details).

CEPA - National Pollutant Release Inventory (NPRI):

This product contains no chemicals subject to CEPA - NPRI.

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL):

All components are included or are otherwise exempt from inclusion on this inventory.

Comments

VOC Content -- See section 9.

16. OTHER INFORMATION

Reason for Issue: NEW

Title: R&D Chemist / Chemiste de R&D Approved By: Jim Gordon

Prepared By: Regulatory Compliance / Conformité réglementaire **Date Prepared:** 12/21/2015

Information Contact: 905-670-5411

HMIS RATING





NFPA 30 / 30B Storage Classification: Combustible Liquid IIIB

Manufacturer Supplemental Notes: None

Data Sources: Not Available

Additional MSDS Information:

N/AV Not Available N/AP Not Applicable ND Not yet determined CAA The Clean Air Act

CCCR The Consumer Chemicals and Containers Regulations

CEPA The Canadian Environmental Protection Act

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

EPCRA The Emergency Planning and Community Right-To-Know Act

IARC International Agency for Research on Cancer

MSHA Mine Safety and Health Administration

NIOSH National Institute for Occupational Safety and Health

NTP National Toxicology Program

OSHA The Occupational Safety and Health Act

SARA The Superfund Amendments and Reauthorization Act

WHMIS Workplace Hazardous Materials Information System

General Statements:

No data available.

Comments:

None

Manufacturer Disclaimer:

The information contained herein is based on data considered accurate. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. No responsibility is assumed for personal injury or property damage to vendees or users or third parties, caused by the material. Such vendees or users assume all risks with the use of this material.