Safety Data Sheet

BULLDOG EPOXY

Epoxy Top Coat Clear – PART A

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1. IDENTIFICATION

24 HOUR EMERGENCY ASSISTANCE	MANUFACTURER/GENERAL MSDS ASSISTANCE
CHEM-TEL 1-800-255-3924	**ONYX CONCRETE COATINGS** **Tel.:** (888)-497-3872 **1610 E. Miraloma Ave.** **Placentia, CA 92870**

PRODUCT IDENTIFIER/NAME: **Epoxy Top Coat Clear– PART A**
RECOMMENDED USE: Chemical intermediate for epoxy

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute Oral Toxicity Category 5
Skin Irritation Category 2
Skin Sensitizer Category 1
Germ Cell Mutagenicity Category 2

NFPA ratings (scale 0 – 4):

HEALTH	**1**
FIRE	**1**
REACTIVITY	**0**
SPECIAL	**-**

NFPA HAZARD RATING:
4= EXTREME 2= MODERATE 0= INSIGNIFICANT
3= HIGH 1= SLIGHT

HAZARD PICTOGRAMS:

SIGNAL WORD: Warning

PHYSICAL APPEARANCE: Milky gray or colored liquid with faint epoxy odor

HAZARD STATEMENTS:
EYE: Minor transient irritation. No corneal injury likely.

SKIN CONTACT: May cause allergic skin reaction in susceptible individuals. Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation.
SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD_{50} for skin absorption in rabbits is 20,000 mg/kg.
INGESTION: Low acute oral toxicity; LD_{50} (rat) greater than 4000 mg/kg. No hazards anticipated from ingestion incidental to industrial exposure.
INHALATION: Vapors are unlikely due to physical properties. Not a problem unless heated to high temperature.
SYSTEMIC AND OTHER EFFECTS: Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. A poorly characterized sample of low molecular weight epoxy resin of this type has been reported to produce skin cancer in a highly sensitive strain of mice. However, high levels of impurities compromise the validity of the findings. Epoxy resin that is representative of current manufacturing processes is not believed to be a cancer hazard to humans. Results of mutagenicity tests in animals have been negative. Has been shown to be negative in some in vitro mutagenicity tests and positive in others.

PRECAUTIONARY STATEMENTS: Use personal protective equipment as required to minimize repeated skin exposure. Wash thoroughly after handling. If skin irritation or rash occurs: Wash with plenty of soap and water and avoid repeated exposure. IF ON SKIN: Wash with plenty of soap and water.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Reaction products of Epichlorohydrin and Bisphenol A	(CAS 25085-99-8)	> 90%
Alkyl Glycidyl Ether	(CAS 68609-97-2)	>10%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not Hazardous per this OSHA Standard may be listed. Where proprietary Ingredient shows, the identity may be made available as provided **i**n this standard**.**

4. FIRST AID MEASURES

EYES: Irrigation of the eye immediately with water for fifteen minutes is a good safety practice.
SKIN: Contact will probably cause no more than irritation. Wash off in flowing water or shower. Wash clothing before reuse.
INGESTION: Low in toxicity. No adverse effects anticipated by this **r**oute of exposure incidental to proper industrial handling.
INHALATION: Remove to fresh air if effect occurs. Consult medical personnel.
NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on **j**udgment of the physician in response to reactions of the patient.

5. FIRE-FIGHTING MEASURES

FLASH POINT: 245°F
METHOD USED: PMCC
FLAMMABLE LIMITS
LFL: Not applicable
UFL: Not applicable
EXTINGUISHING MEDIA: Foam, CO_2, dry chemical
FIRE AND EXPLOSION HAZARDS: None.
FIRE-FIGHTING EQUIPMENT: Wear positive pressure SCBA.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Large spill -- dike up and pump into appropriate containers. Small spill -- use noncombustible absorbent material/sand and shovel into suitable containers.
DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums and seal for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Practice good caution and personnel cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Good room ventilation usually adequate for most operations.
RESPIRATORY PROTECTION: None normally needed.
SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur.
EYE PROTECTION: Use chemical goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: Not applicable
VAP PRESS: Not applicable
VAP DENSITY: Not applicable
SOL. IN WATER: None
SP. GRAVITY: 1.12-1.14
APPEARANCE: Milky gray or colored, viscous liquid.
ODOR: Faint epoxy odor

10. STABILITY AND REACTIVITY

STABILITY: (CONDITIONS TO AVOID) Excess heating over long periods of time degrades the resin.
INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Base.
HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete pyrolysis or combustion of epoxy resins are mainly phenolics, carbon monoxide and water. The thermal decomposition products of epoxy resins therefore should be treated as potentially hazardous substances, and appropriate precautions should be taken.
HAZARDOUS POLYMERIZATION: Will not occur by itself but masses more than 1 pound of product plus aliphatic amine will cause irreversible polymerization with considerable heat buildup.

11. TOXICOLOGICAL INFORMATION

No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity: **No Data Available**

Environmental Fate: **No Data Available**

Bioaccumulation: **No Data Available**

Biodegradation: **No Date Available**

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums and seal for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transportation Emergency Number: CHEMTEL 1-800-255-3924.

D.O.T. Shipping Name: Not Regulated By D.O.T.

15. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS: The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

SUPERFUND AMENDMENTS and REAUTHORIZATION ACT of 1986 (SARA) TITLE III:
Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355. Components present in this product at a level which could require reporting under this statute are:

Chemical Name	CAS Number	% By Weight
NONE		

Sections 311-312 require products be reviewed and applicable EPA Hazard Definitions be identified and made known.

EPA HAZARD CLASSIFICATIONS:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard
No	**No**	**No**	**No**	**No**

Section 313 requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at level which could require reporting under the statute are:

Chemical Name	CAS Number	% By Weight
NONE		

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot Line: 800-535-0202 or 202-479-2449.
TOXIC SUBSTANCES CONTROL ACT (TSCA):
The components of this product are contained on the chemical substance inventory list.

16. OTHER INFORMATION

Date Revised: 05/06/2020

MANUFACTURER'S NAME AND ADDRESS:
ONYX CONCRETE COATINGS
1610 E. Miraloma Ave.
Placentia, CA 92870
Telephone: 714-572-6723

The information herein is given in good faith, but no warranty expressed or implied is made. Onyx Concrete Coatings urges users of this product to evaluate its suitability and compliance with local regulations as Onyx cannot foresee the nature of the final application nor final location of usage.

BULLDOG EPOXY

Epoxy Top Coat Clear– PART B

Safety Data Sheet

1. IDENTIFICATION

24 HOUR EMERGENCY ASSISTANCE	MANUFACTURER/GENERAL MSDS ASSISTANCE
CHEM-TEL 1-800-255-3924	**ONYX CONCRETE COATINGS** **Tel.:** (888)-497-3872 **1610 E. Miraloma Ave.** **Placentia, CA 92870**

PRODUCT IDENTIFIER/NAME: **Epoxy Top Coat Clear – PART B**
RECOMMENDED USE: Chemical intermediate for epoxy

2. HAZARD(S) IDENTIFICATION

HAZARD CLASSIFICATION:

Acute Oral Toxicity Category 4
Skin Corrosion Category 1B
Serious Eye Damage Category 1
Skin Sensitizer Category 1
Respiratory Sensitizer Category 1
Specific Target Organ Toxicity Repeated Exposure Oral Category 2

NFPA ratings (scale 0 – 4):

HEALTH	**3**
FIRE	**1**
REACTIVITY	**1**
SPECIAL	**-**

NFPA HAZARD RATING:
4= EXTREME 2= MODERATE 0= INSIGNIFICANT
3= HIGH 1= SLIGHT

HAZARD PICTOGRAMS:

SIGNAL WORD: Danger!

HAZARD STATEMENTS:
Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure if swallowed.

PRECAUTIONARY STATEMENTS:
Prevention: Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Disposal: Disposal of contents/container to be specified in accordance with regulations.

HAZARDS NOT OTHERWISE CLASSIFIED:
Corrosive, Components of the product may affect the nervous system, Harmful if swallowed, Harmful in contact with skin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Cycloaliphatic amine	(Not Available)	< 10 %
Benzyl Alcohol	(Not Available)	< 25 %
Aliphatic amine	(Not Available)	< 10 %

The remaining components are trade secret.

4. FIRST AID MEASURES

General advice : Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.
Eye contact : Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.
Skin contact : Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Flush immediately with copious amounts of water. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing.
Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.
Inhalation : Move to fresh air.
Most important symptoms/effects – acute and delayed : Eye disease. Skin disorders and Allergies. Neurological disorders Liver disorders.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Alcohol-resistant foam, Carbon Dioxide (CO_2), dry chemical, dry sand, limestone powder.
SPECIFIC HAZARDS: Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NOx) is to be expected. Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.
FIRE-FIGHTING EQUIPMENT: Avoid contact with skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.
FURTHER INFORMATION: Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear suitable protective clothing, gloves, and eye/face protection. Use self-contained breathing apparatus and chemically protective clothing. Evacuate personnel to safe areas.
ENVIRONMENTAL PRECAUTIONS: Construct a dike to prevent spreading.

METHODS FOR CLEANING UP: Approach suspected leaks areas with caution. Place in appropriate chemical waste container.
ADDITIONAL ADVICE: If possible, stop flow of product.

7. HANDLING AND STORAGE

HANDLING: Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink, or smoke.
STORAGE: Do not store near acids. Keep containers tightly closed in a dry, cool, and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES
Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory protection : Not required for properly ventilated areas.
Hand protection : Butyl-rubber. Nitrile rubber. Neoprene gloves. PVC disposable gloves. Impervious gloves. Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection : Full face shield with goggles underneath.
Skin and body protection : Slicker Suit. Impervious clothing. Full rubber suit (rain gear). Rubber or plastic boots.
Special instructions for protection and hygiene : Discard contaminated leather articles. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash hands at the end of each work shift and before eating, smoking, or using the toilet. Provide readily accessible eye wash stations and safety showers.

EXPOSURE LIMIT(S)

Alcohol	Time Weighted Average (TWA): WEEL	10 ppm	44.20 mg/m3

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 410°F (210°C)
MELTING POINT: 14°F (-10°C)
FLASH POINT: 216°F (102°C)
VAP PRESSURE: 0.80 mmHG @21°C, 70°F, 6.32 mmHG @54°C, 130°F
SOL. IN WATER: No data available
SP. GRAVITY: No data available
APPEARANCE: Liquid
ODOR: No data available.
VISCOSITY: 80 mPa.s at 70°F (21°C)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: No data available.
MATERIALS TO AVOID: Reactive materials (e.g. sodium, calcium, zinc, etc.). Materials reactive with hydroxyl components. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites, or atmospheres with high nitrous oxide concentrations. Nitrous acids and other nitrosating agents. Organic acids. Mineral acids. Sodium hypochlorite. Product slowly corrodes copper, aluminum, zinc, and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Nitric acid. Ammonia. Nitrogen Oxides (NOx). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon monoxide. Carbon dioxide (CO2). Aldehydes. Flammable hydrocarbon fragments. Nitrosamine. Nitric acid. Ammonia.
POSSIBILITY OF HAZARDOUS REACTIONS: No data available.

11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

LIKELY ROUTES OF EXPOSURE
Effects on Eye: Causes eye burns. May cause blindness.
Effects on Skin: Cause skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Harmful in contact with skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea, and vomiting.
Inhalation Effects: Can cause sever eye, skin, and respiratory tract burns. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.
Ingestion Effects: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Harmful if swallowed.
Symptoms: No data available.

ACUTE TOXICITY
Acute Oral Toxicity: No data is available on the product itself.
Acute Oral Toxicity – Components:

Cycloaliphatic amine	LD50: 625 mg/kg	Species: Rat
Alcohol	LD50: 1,230 mg/kg	Species: Rat

Inhalation: No data is available on the product itself.
Inhalation – Components:

Alcohol	LC50 (4h): >4.178mg/L OECD Test Guideline 403	Species: Rat

Acute Dermal Toxicity: No data is available on the product itself.
Acute Dermal Toxicity – Components:

Cycloaliphatic amine	LD50: 2,110 mg/kg	Species: Rabbit
Alcohol	LD50: 2,000 mg/kg	Species: Rabbit

Skin Corrosion/Irritation: No data available.
Serious Eye Damage/Eye Irritation: No data available.
Sensitization: May cause sensitization of susceptible persons by skin contact.

CHRONIC TOXICITY
Carcinogenicity: No data available.
Reproductive Toxicity: No data available on the product itself.
Germ Cell Mutagenicity: No data available on the product itself.
Specific Target Organ Systemic Toxicity (Single Exposure): No data available.
Specific Target Organ Systemic Toxicity (Repeated): No data available.
Aspiration Hazard: No data available.

This product contains no listed carcinogens according to IARC, ACGIH, NTP, and/or OSHA in concentrations of 0.1 percent or greater. Eye disease, Skin disorders, and Allergies, Neurological disorders, Liver disorders.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
Aquatic toxicity : No data is available on the product itself.
Toxicity to fish - Components

Cycloaliphatic amine	LC0 (96 h) : 46 mg/l	Species : Golden orfe (Leuciscus idus).
Cycloaliphatic amine	LC50 (96 h) : > 100 mg/l	Species : Golden orfe (Leuciscus idus).
Alcohol	LC50 (96 h) : 10 mg/l	Species : Bluegill sunfish (Lepomis macrochirus).
Alcohol	LC50 (96 h) : 460 mg/l	Species : Fathead minnow (Pimephales promelas).

Toxicity to daphnia - Components

Cycloaliphatic amine	EC50 (48 h) : 6.84 mg/l	Species : Daphnia magna.

Toxicity to algae - Components

Cycloaliphatic amine	EC50 (72 h) : 140 - 200 mg/l	Species : Algae.
Alcohol	IC50 (72 h) : 700 mg/l	Species : Algae.

Toxicity to other organisms : No data available.

PERSISTANCE AND DEGRADABILITY:
Biodegradability: No data is available on the product itself.
Mobility: No data available.
Bioaccumulation: No data is available on the product itself.
Bioaccumulation – Components

Alcohol	Low bioaccumulation potential.

13. DISPOSAL CONSIDERATIONS

WASTE FROM RESIDUES: Contact supplier if guidance is required.
CONTAMINATED PACKAGING: Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

Transportation Emergency Number: 1-800-255-3924 CHEM-TEL.

DOT
UN/ID No.: UN2735
Proper shipping name: Amines, liquid, corrosive, n.o.s., (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol)
Class or Division: 8
Packing group: III
Label(s): 8
Marine Pollutant: No

IATA
UN/ID No.: UN2735
Proper shipping name: Amines, liquid, corrosive, n.o.s., (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol)
Class or Division:
Packing group:
Label(s):
Marine Pollutant: No

IMDG
UN/ID No.: UN2735
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S., (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol)
Class or Division: 8
Packing group: III
Label(s): 8
Marine Pollutant: No

TDG
UN/ID No.: UN2735
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S., (Tris-2,4,6-(dimethylaminomethyl)phenol, Bis(dimethylaminomethyl)phenol)
Class or Division: 8
Packing group: III
Label(s): 8
Marine Pollutant: No

Further Information:
The transportation information is not intended to convey all specific regulatory data relating to this material.

15. REGULATORY INFORMATION

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
None

TOXIC SUBSTANCES CONTROL ACT (TSCA) 12(b) Component(s):
None

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65):
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other hard.

16. OTHER INFORMATION

Date Revised: 06/10/2020

MANUFACTURER'S NAME AND ADDRESS:
ONYX CONCRETE COATINGS
1610 E. Miraloma Ave.
Placentia, CA 92870
Telephone: 888-497-3872

The information herein is given in good faith, but no warranty expressed or implied is made. Onyx Concrete Coatings urges users of this product to evaluate its suitability and compliance with local regulations as Onyx cannot foresee the nature of the final application nor final location of usage.