



## Novolac Epoxy Top Coat Safety Data Sheet

SDS Revision Date: 5/22/2023

### 1. Product and Company Identification

Product Name	Novolac Epoxy Top Coat
Product Codes	Novolac Epoxy Top Coat
Manufacturer	Concrete Floor Solutions, Inc.
Street Address	6801 Tilghman Street #113
City, State, Zip	Allentown, PA 18106
Information Phone	610-366-0208
Emergency Phone	Chemtrec 800-424-9300
Prepared By	Jason Kehnel
Date Revised	5/22/2023
Chemical Name or Class	Epoxy/Novolac Mixture

### 2. Hazards Identification

GHS Classification: Serious eye damage/eye irritation category 2A. Skin irritation category 2, skin sensitizer category 1, long term hazards to aquatic environment category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Aquatic Toxicity



Hazard Statements:

Warning: Causes serious eye irritation.

Warning: Causes skin irritation.

Warning: May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

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P103 Read label before use.

P264 Wash hands thoroughly after handling.

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

P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

### Response

P302 + P352 IF ON SKIN: wash with plenty of soap and water.

P333 + P313 IF SKIN irritation or rash 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.

P391 Collect spillage.

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws.

Other non-classifiable potential hazards

Carcinogen category 2

Specific target organ toxicity – single exposure category 3 (narcotic effect)

### HMIS Hazard Classification

Health: 2      Flammability: 1      Reactivity: 0      Personal Protective Equipment: G

### Potential Health Effects

Eyes: May cause irritation but no corneal injury is likely.

Skin: May cause irritation or allergic skin response.

Ingestion: This material has a probable low acute oral toxicity.

Inhalation: No guide for control known, however, exposure to heated vapors can cause irritation to the nose, throat, or mucous membranes.

Health hazards (acute and chronic): Epoxy resins can cause sensitization by exposure through contact or high concentrations of vapor. Eyes: Injury if unlikely but stain for evidence of corneal injury.

Medical conditions generally aggravated by exposure: Respiratory conditions or other allergic ailments.

### Carcinogenicity

OSHA: No

NTP: Yes

IARC: Yes

Additional Carcinogenicity Information: Some colors may contain carbon black - Explanation of Carcinogenicity: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. 2B Titanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B).

### 3. Composition/Information on Ingredients

Ingredient	Cas No.	OSHA PEL	ACGIH TLV	OSHA STEL	Weight %
Modified Diglycidyl Ether of Bisphenol A	25068-38-6	NONE	NONE	NONE	1-5
Alkyl Glycidyl Ether	68609-97-2	NONE	NONE	NONE	0.1-1
Epoxy Phenol Novolac Resin	28064-14-4	NONE	NONE	NONE	10-30
Bisphenol F/Epichlorohydrin Epoxy Resin	9003-36-5	NONE	NONE	NONE	30-60
Propylene Glycol Monomethyl Ether	107-98-2	100 PPM	100 PPM	150 PPM	3-7
Siloxanes and Silicones, di-me Reactions Products with Silica (Non-hazardous)	67762-90-7	NONE	NONE	NONE	0.1-1
Siloxanes and Silicones, Di-methyl (non-hazardous)	63148-62-9	NONE	NONE	NONE	0.1-1
Stoddard Solvent	8052-41-3	100 PPM	100 PPM	NONE	0.1-1
1-Methoxy-2-Propanol Acetate	108-65-6	50 PPM	NONE	NONE	0.1-1
*1,2,4-Trimethylbenzene	95-63-6	25 PPM	NONE	NONE	(0.5%)
Sec-Butyl Alcohol	78-92-2	150 PPM	100 PPM	NONE	
Acetic Acid, Butyl Ester	123-86-4	150 PPM	150 PPM	200 PPM	0.1-1
Colors May Contain @ 7-13%:					
Titanium Dioxide	13463-67-7	10 mg/m3	10 mg/m3	5 mg/m3	
*Carbon	1333-86-4	3.5 PPM	3.4 PPM	NONE	<1.0
Precipitated Silica	112926-00-8	NONE	80 mg/m3	NONE	
Iron III Oxide	1309-37-1	10 mg/m3	5 mg/m3	NONE	
Yellow Pigment	Not Available	NONE	NONE	NONE	
Zinc Sulfide (Component of Yellow Pigment)	1314-98-3	NONE	NONE	NONE	
Barium Sulfate (Component of Yellow Pigment)	7727-43-7	NONE	NONE	NONE	
Titanium Dioxide (Component of Yellow Pigment)	13463-67-7	NONE	NONE	NONE	

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Pigment Yellow 65 (Component of Yellow Pigment)	6528-34-3	NONE	NONE	NONE	
Iron III Hydroxide	20344-49-4	15 mg/m3	5 mg/m3	NONE	
C.I. Pigment Blue	147-14-8	1 mg/m3	1 mg/m3	NONE	
Aluminum Oxide	1344-28-1	15 mg/m3	10 mg/m3	NONE	
Silica, Amorphous	7631-86-9	80 mg/m3	10 mg/m3	NONE	
Iron Oxide Yellow	51274-00-1	15 mg/m3	10 mg/m3	NONE	
Silica, Amorphous	7631-86-9	80 mg/m3	10 mg/m3	NONE	

SECTION 3 NOTES: \*Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

#### **4. First Aid Measures**

Eyes: Flush eyes with water for at least 15 minutes and consult a physician.

Skin: Skin contact will normally cause no more than irritation but wash affected areas with soap and water and remove contaminated clothing promptly.

Ingestion: Low in toxicity, induce vomiting only if large amounts of material are ingested, and otherwise do not induce vomiting. In either case consult a physician.

Inhalation: Remove to fresh air and administer oxygen if necessary.

#### **5. Fire Fighting Measures**

Flammable limits in air (Upper: N/A  
(% by volume) Lower: N/A)

Flash point 200+F

Method used Seta Flash

Extinguishing media Foam, Alcohol Foam, CO2, Dry Chemical, Water Fog

Special fire fighting procedures Do not enter a confined fire area without full bunker gear including a positive pressure niosh approved self-contained breathing apparatus. Cool all fire exposed containers with water.

Unusual fire and explosion hazards None known.

#### **6. Release Measures**

Steps to be taken in case material is released or spilled - Wear respirator and protective clothing.

Shut off the source at the leak. Remove excess with a vacuum truck and take up the remainder

with an absorbent such as clay and place in disposal containers. Flush area with water to remove residue.

## **7. Handling and Storage**

Precautions to be taken in handling and storage: store in a cool dry place. Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Mixed materials contain the hazards of all the components, therefore, read the MSDS of all the components prior to using material. Properly label all containers.

Other precautions: Avoid all skin contact. Avoid breathing vapors generated from the material. Observe conditions of good general hygiene and safe working practices. Contaminated leather articles can not be cleaned and must be discarded if contaminated with this product. Wash all contaminated clothing prior to the reuse thereof.

## **8. Exposure Controls/Personal Protection**

Respiratory protection: use a NIOSH approved respirator as required to prevent over exposure to vapor in accordance with 29 CFR 1910.134. General exhaust is usually sufficient in lieu of a NIOSH respirator.

Ventilation: General exhaust is usually sufficient to control vapors and exposure hazards.

Protective gloves: Impervious gloves – neoprene or rubber

Eye protection: Splash goggles or glasses with side shields

Other protective clothing or equipment: wear body covering clothing and other coverings as necessary such as apron and appropriate footwear to avoid contact with the material

Work hygienic practices: observe good general hygienic practices

**See Section 3 for occupational exposure limit values**

## **9. Physical and Chemical Properties**

Appearance and Odor - Medium viscosity liquid varying colors

Boiling Point or Range - 200 to 279 F

Vapor Density (Air = 1) - Not available

Specific Gravity (H<sub>2</sub>O = 1) - 1.1-1.2

Evaporation Rate - Not available

Solubility in Water - Negligible

Odor Threshold - N/A

pH - N/A

Melting Point/Freezing Point - N/A

Vapor Pressure - N/A

Auto Ignition Temperature - N/A

Partition Coefficient: n-octanol/water - N/A

Decomposition Temperature- N/A

## 10. Stability and Reactivity

Stability - stable

Conditions to Avoid (Stability) - avoid excessive heat or open flames.

Incompatibility (Material to Avoid) - can react vigorously with strong oxidizing agents and strong lewis acids or mineral acids.

Hazardous Decomposition or By-Products - co<sub>2</sub>, aldehydes, acids. Reaction with some curing agents can generate large amounts of heat.

Hazardous Polymerization - will not occur

## 11. Toxicological Information

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Moderate sensitizer, slight eye irritant, moderate skin irritant, Oral LD<sub>50</sub> >5000 mg/kg (rat), Dermal LD<sub>50</sub> >6000 mg/kg (rabbit)

Component CAS# 68609-97-2: possible sensitizer, eye and skin irritant, Oral LD<sub>50</sub> >10000 mg/kg (rat), Inhalation LD<sub>50</sub> – no microscopic changes

Component Epoxy phenol novolac resin CAS# 28064-14-4: LD<sub>50</sub> Oral: >4000 mg/kg (adult rat). LD<sub>50</sub> skin (adult rabbit) >2000 mg/kg. Mutagenicity was negative in in-vivo genotoxicity assays. Mixed results were seen in in-vitro genotoxicity assays.

Component BISPENOL F/EPICHLOROHYDRIN EPOXY RESIN CAS# 9003-36-5: Acute Oral Effects: LD<sub>50</sub> (rat) >5000 mg/kg. Acute Dermal Toxicity (rabbit) >3000 mg/kg. Inhalation toxicity LC<sub>50</sub> (rat) >1.7 mg/l air for a 4-hr aerosol exposure (maximum concentration obtained). Sensitization (guinea pig) causes sensitization. Skin Irritation (rabbit) Causes moderate irritation. Eye irritation (rabbit) Causes slight irritation.

Component CAS# 107-98-2: Ingestion LD<sub>50</sub> rat 4016 mg/kg, Dermal LD<sub>50</sub> rabbit >2000 mg/kg, Inhalation LC<sub>50</sub> 6 hr Vapor, rat >25.8 mg/l. May cause eye or skin irritation. May affect Kidney or liver. Has been reported to be toxic to fetuses in laboratory animals.

Component CAS# 8052-41-3: Draize test (rabbit) eye: 500 mg/24hr – Moderate. Epidemiology: Studies involving petroleum refinery workers indicate that persons with routine exposure to petroleum based constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer and skin cancer. LD<sub>50</sub> oral >6000 mg/kg (rat). Dermal LD<sub>50</sub> >3000 mg/kg (rabbit). Inhalation LC<sub>50</sub> = 5500 mg/kg (4 hr) (rat). Component is a moderate skin irritant. Product is an eye irritant.

Component CAS# 108-65-6: Oral LD<sub>50</sub> = 8532 mg/kg (rat). Dermal LD<sub>50</sub> >5000 mg/kg (rabbit). Inhalation LC<sub>50</sub> >100 ppm (4hr) (rat) Component is a moderate skin irritant. Product is an eye irritant

Component CAS# 95-63-6: Oral LD<sub>50</sub> (rat) = 5000 mg/kg. Inhalation LC<sub>50</sub> (rat) -4h = 18000 mg/m<sup>3</sup>.

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Component CAS# 78-92-2: Acute Oral Toxicity LD50 = 6480 mg/kg (rat)

Component acetic acid, butyl ester CAS# 123-86-4: Acute Oral Toxicity LD50 = 10768 mg/kg (rat) 4hr estimated. Acute Dermal Toxicity LD50 = 17601 mg/kg (rabbit) 4hr estimated. Acute Toxicity of the vapor LC50 = 2000 (rat) 4hr estimated.

Component Titanium Dioxide: Inhalation 4 h LC50 > 6.82 mg/l; Oral LD50 > 5000 mg/kg, rat; In February 2006, IARC listed titanium dioxide as possibly carcinogenic to humans Group 2B.

Component CAS# 67762-90-7: LD50 (rat >1000 mg/kg, LD50 dermal (rabbit) >2000 mg/kg

Component Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg

Component CAS# 112926-00-8: LD50 (rat >5000 mg/kg, LD50 dermal (rat) >2000 mg/kg

Component Iron III hydroxide CAS# 1309-37-1: Acute Oral Toxicity LD50 >5000 mg/kg (rat). Acute Dermal Toxicity LD50 >5000 mg/kg (rat)

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.. Acute oral value of 20 gm/kg or greater in rats

Component Iron III oxide CAS# 20344-49-4: Acute Oral Toxicity LD50 >5000 mg/kg (rat).

## 12. Ecological Information

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Biodegradability (Modified Sturm Method) 12%, Fish toxicity: Rainbow trout (96hr) LC50 1.5mg/l, Zebra Fish (96hr) LC50 2.4 mg/l. Invertebrate Toxicity: Daphnia Toxicity (24hr) EC 50 3.6 mg/l

Component Epoxy phenol novolac resin CAS# 28064-14-4: Freshwater Fish Toxicity - the acute LC50 is 1-10 mg/L, based on similar materials; Freshwater Invertebrates. Toxicity - the acute EC50 is 1-10 mg/L, based on similar materials. Material is not readily biodegradable.

Component CAS# 107-98-2: Bioconcentration potential is low (BCF less than 100). Potential for mobility in soil is high (KOC between 0 and 50). Material is readily biodegradable and is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/l in the most sensitive species tested.. LC50 fathead minnow 96 hr 20800 mg/l, LC50 water flea 48 hr lethally 23300 mg/l, EbC50 green algae biomass growth inhibition 7 d >1000 mg/l.

Toxicity to microorganisms IC50 activated sludge > 1000 mg/l

Component CAS# 95-63-6: Toxicity to fish LC50 (fathead minnow) 7.72 mg/l 96 hr. Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 (water flea) 3.6mg/l 48hr.

Component CAS# 108-65-6: Biodegradation Aerobic: 100% exposure time 8 days. Acute and prolonged Toxicity to Fish LC50: 161 mg/l (fathead minnow, 96 hrs; Acute toxicity to Aquatic Invertebrates EC50: 408 mg/l (water flea, 48 hrs))

Component CAS# 78-92-2: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.

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Component acetic acid, butyl ester CAS# 123-86-4 : Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.

Component Titanium Dioxide: Pimephales promelas (fathead minnow) < 1000 mg/l @ 96h LC50; Pseudokirchneriella subcapitata (green algae) 61 mg/l @ 72h EC50; Daphnia magna (water flea) > 1000 mg/l @ 48h EC50

Component CAS# 112926-00-8: Ecotoxicity: EC50 (fish) .10000 mg/l (daphnia >10000 mg/l

Component Iron III oxide CAS# 1309-37-1 Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Acute toxicity to Aquatic Invertebrates EC0 > 10000 mg/l (water flea).

Toxicity to Microorganisms EC0 > 1000 mg/l (pseudomonas putida)

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.

Component Iron III hydroxide CAS# 20344-49-4: Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Toxicity to Microorganisms EC0 > 10000 mg/l (pseudomonas putida)

### 13. Waste Disposal

Waste Disposal Method: Dispose of material in a waste disposal site in accordance with local, state, and federal laws.

### 14. Transport Information

**DOT:** Not Regulated

**IMO/IMDG:** UN3082, Environmentally Hazardous Substances, Liquid, N.O.S. (Contains Bisphenol A Diglycidyl Ether Polymer), 9, PGIII, Marine Pollutant

### 15. Regulatory Information

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, WHMIS class D2B; Is on the New Jersey Right to Know list,; is on the PA Right to Know List;

Component CAS# 68609-97-2: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, Is on the New Jersey Right to Know list; is on the PA Right to Know List.

Component Epoxy phenol novolac resin CAS# 28064-14-4: U.S. Toxic Substances Control Act: All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals

or are otherwise compliant with TSCA regulations. Immediate health hazard. The chemical identity of some or all components present is confidential business information (trade secret) and is being withheld as permitted by

29CFR1910.1200 (i). Component is on the Canadian Domestic Substances List (DSL) Canadian WHMIS Class:



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D2B

Component BISPHENOL F/EPICHLOROHYDRIN EPOXY RESIN CAS# 9003-36-5:

Component is on the TSCA and Canada DSL lists. Component is on the New Jersey and Pennsylvania right to know lists

Component CAS# 107-98-2; on the PA right to know list. Product is on the TSCA list and DSL Canada

Component Siloxanes and silicones, di-me reactions products with silica: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

Component siloxanes and silicones, di-methyl: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

Component CAS# 8052-41-3: Component is on the TSCA and Canada DSL lists. Components are on the Pennsylvania, California, New Jersey Massachusetts and Minnesota right to know lists.

Component CAS# 95-63-6: This component is subject to SARA Title III Section 313 reporting. This component is in the TSCA and Canada DSL Lists. This component is on the Massachusetts, Pennsylvania, New Jersey right to know lists.

Component CAS# 108-65-6: on the TSCA list. Components are on the Pennsylvania, Massachusetts or New Jersey Right to know substance list.

Component CAS# 78-92-2: Component is on Canada DSL and TSCA lists. Component is on the Massachusetts and Pennsylvania Right to Know list

Component acetic acid, butyl ester CAS# 123-86-4 : Component is on Canada DSL and TSCA lists. Components are on the Massachusetts and Pennsylvania Right to Know list. n-butyl acetate is a CERCLA hazardous substance

Component Titanium Dioxide: Contains Proposition 65 Chemicals, is on the PA Hazardous substance list, is on the NJ right to know Regulated chemical List.

Titanium Dioxide is in inventory or in compliance with EINECS, TSCA, AICS, DSL, ENCS (JP), KECI (KR), PICCS (PH) and INV (CN).

Component Carbon: Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada

Component CAS# 112926-00-8: Is not classified as dangerous. National Chemical Inventory listings include – AICS, DSL, IECSC, EINECS, ENCS, KECI, NZLOC, PICCS, TSCA,

Component Iron III oxide CAS# 1309-37-1 Listed on TSCA Inventory. Section 313/312 hazard category: Chronic health hazard. Potential exposure to all of the California proposition 65 have been determined to be below the No significant risk level (NSRL). Components and its impurities (1%) are on the Pennsylvania, New Jersey right to know substance lists. Component contains the following chemicals listed on the New Jersey and Pennsylvania RTK special hazardous Substance lists: Manganese CAS# 7439-96-5 (0.7%) and Aluminum CAS# 7429-90-5 (0.29%). Component contains the following ingredients which are on the Pennsylvania, Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.075%) and Nickel CAS# 7440-02-0 (0.04%) Component contains the following chemicals on the California

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Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.04%) and Cobalt CAS# 7440-48-4 (30 ppm).

Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.

Component Iron III hydroxide CAS# 20344-49-4: Listed on TSCA Inventory. Potential exposure to all of the California proposition 65 chemicals have been determined to be below the No significant risk level (NSRL). Components are on the Pennsylvania right to know substance list.

Component contains the following chemicals listed on the Pennsylvania RTK special hazardous Substance lists: chromium CAS# 7440-47-3 (0.02%) and nickel CAS# 7440-02-0 (0.015%).

Component contains the following ingredients which are on the Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.02%), arsenic CAS# 7440-38-2 (60 ppm), Beryllium CAS# 7440-41-7 (1ppm) and Nickel CAS# 7440-02-0 (0.015%) Component contains the following chemicals on the California Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.015%), arsenic CAS# 7440-38-2 (60 ppm), Beryllium CAS# 7440-41-7 (1ppm) and Cobalt CAS# 7440-48-4 (70 ppm)..

Component CAS# 147-14-8: Component is on the TSCA List. and not controlled under WHMIS. Component is a CERCLA hazardous substance

Component CAS# 1344-28-1: Component is on the Massachusetts, New Jersey, Pennsylvania right to know lists. Components are on the TSCA list and Canada DSL.

Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Components are on the TSCA list and Canada DSL.

Component CAS# 51274-00-1: Component is on the TSCA list and Canada DSL.

Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Component is on the TSCA list and Canada DSL.

### 16. Other Information

DISCLAIMER: THE INFORMATION HEREIN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE, HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.

N/A = Not Available

See Section 1 for date of preparation

## 1. Product and Company Identification

Product Name	Novolac Epoxy Top Coat
Product Codes	Novolac Epoxy Top Coat
Manufacturer	Concrete Floor Solutions, Inc.
Street Address	6801 Tilghman Street #113
City, State, Zip	Allentown, PA 18106
Information Phone	610-366-0208
Emergency Phone	Chemtrec 800-424-9300
Prepared By	Jason Kehnel
Date Revised	5/22/2023
Chemical Name or Class	Polyamine Mixture

## 2. Hazards Identification

GHS Classification: Specific target organ toxicity following repeated exposure category 2, Skin corrosion/irritation category 1, skin sensitizer category 1B, Serious eye damage category 1, Acute hazard to aquatic environment category 3, Chronic hazards to aquatic environment category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Corrosion, Health Hazard, Aquatic Toxicity



Hazard Statements:

Warning: May cause damage to organs through prolonged or repeated exposure.

Danger: Causes Severe skin burns and eye damage.

Warning: May cause an allergic skin reaction.

Danger: Causes serious eye damage.

Harmful to aquatic life.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P264 Wash hands thoroughly after handling.

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

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

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

P273 Avoid release to the environment.

Response;

P314 Get medical advice/attention if you feel unwell.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 If skin irritation or burns develop, Call a doctor/physician.

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

P302 + P352 IF ON SKIN: wash with plenty of soap and water.

P333 + P313 IF SKIN irritation or rash 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.

P310 If in eyes, immediately call a POISON CENTER or doctor/physician.

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws.

### HMIS Hazard Classification

Health: 2      Flammability: 1      Reactivity: 0      Personal Protective Equipment: G

### Potential Health Effects

Eyes: Will cause burns to the eyes. High vapor concentrations can cause severe irritation to the eyes.

Skin: Will cause burns to the skin.

Ingestion: Liquid can cause severe damage to mucous membranes if swallowed.

Inhalation: High concentrations of vapor can cause irritation to the respiratory tract, nausea, and dizziness.

Health hazards (acute and chronic): Prolonged or repeated exposure may cause asthma and skin sensitization or other allergic responses.

Medical conditions generally aggravated by exposure: Respiratory conditions or other allergic ailments.

### Carcinogenicity

**OSHA: No**

**NTP: No**

**IARC: No**

No listed ingredients of this product are regulated as carcinogens.

### **3. Composition/Information on Ingredients**

Ingredient	Cas No.	OSHA PEL	ACGIH TLV	OSHA STEL	Weight %
Benzyl Alcohol	100-51-6	NONE	NONE	NONE	30-60
Methylenedi (Cyclohexylamine)	1761-71-3	NONE	NONE	NONE	10-30
Cyclohexylamine, 4,4-Methylenebis Reaction Products	129733-57-9	NONE	NONE	NONE	10-30
3-Aminomethyl-3,5,5-Trimethyl Cyclohexane	2855-13-2	NONE	NONE	NONE	10-30
2-Hydroxybenzoic Acid	69-72-7	NONE	NONE	NONE	3-7

SECTION 3 NOTES: \*Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

### **4. First Aid Measures**

Eyes: Immediately flush eyes with water for at least 15 minutes while lifting upper and lower lids. Get immediate medical assistance.

Skin: Flush skin with water for at least 15 minutes and remove all contaminated clothing immediately. Get medical attention if reddening or swelling occurs.

Ingestion: Do not induce vomiting. Dilute by giving water or milk to drink if the victim is conscious. Get medical attention immediately.

Inhalation: Remove to fresh air if effects persist and administer oxygen if necessary.

### **5. Fire Fighting Measures**

Flammable limits in air (% by volume)	Upper: N/A Lower: N/A
Flash point	200+F
Method used	Seta Flash
Extinguishing media	Foam, Alcohol Foam, CO2, Water Fog
Special fire fighting procedures	Toxic fumes will be evolved when this material is involved in a fire. A self-contained breathing apparatus should be available for firefighting. Cool fire exposed containers with water.

Unusual fire and explosion hazards None known.

## **6. Release Measures**

Steps to be taken in case material is released or spilled: avoid contact with material. Wear the appropriate safety equipment. Stop spill at source, dyke area to prevent spreading. Pump liquid to salvage tank. Take up the remainder with clay or other absorbent and place in disposal containers.

## **7. Handling and Storage**

Precautions to be taken in handling and storage: Avoid all skin contact. Avoid breathing vapors. Reseal partially used containers. Properly label all containers. Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Observe conditions of good industrial hygiene and safe working practices.

Other precautions: Mixed materials contain the hazards of all the components, therefore, read the MSDS of all the components to become familiar with all hazards prior to using this product.

## **8. Exposure Controls/Personal Protection**

Respiratory protection: NIOSH approved respirator protection required in the absence of proper environmental controls. For emergencies a self-contained breathing apparatus or a full face respirator is recommended.

Ventilation: Avoid breathing vapors. Ventilation must be sufficient to control vapors.

Protective gloves: Impervious gloves – neoprene or rubber

Eye protection: Splash goggles or glasses with side shields

Other protective clothing or equipment: wear body covering clothing and other coverings as necessary such as apron and appropriate footwear to avoid contact with the material

Work hygienic practices: observe good general hygienic practices

**See Section 3 for occupational exposure limit values**

## **9. Physical and Chemical Properties**

Appearance and Odor - Amber clear liquid with amine odor.

Boiling Point or Range - 477F

Vapor Density (Air = 1) - Not available

Specific Gravity (H<sub>2</sub>O = 1) - 1.0

Evaporation Rate - Not available

Solubility in Water - Negligible

Odor Threshold - N/A

pH - N/A

Melting Point/Freezing Point - N/A  
Vapor Pressure - N/A  
Auto Ignition Temperature - N/A  
Partition Coefficient: n-octanol/water - N/A  
Decomposition Temperature- N/A

## **10. Stability and Reactivity**

Stability - stable

Conditions to Avoid (Stability) - avoid excessive heat or open flames.

Incompatibility (Material to Avoid) - can react vigorously with strong oxidizing agents and strong lewis acids or mineral acids.

Hazardous Decomposition or By-Products - co<sub>2</sub>, aldehydes, acids. Reaction with some curing agents can generate large amounts of heat.

Hazardous Polymerization - will not occur

## **11. Toxicological Information**

No data for the product itself.

Component data:

Components BENZYL ALCOHOL CAS# 100-51-6, METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3, cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: LD50 > 2000 mg/kg Species rat – method estimated.

Component Benzyl Alcohol: Inhalation LC50 (4hr) >4178 mg/l (rat), Dermal LD50 2000 mg/kg (rabbit) Rats exposed to 800 mg/kg for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No observed Adverse effect level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two year study with rats and mice.

Component CAS# 2855-13-2: Oral LD50 rat 1030 mg/kg, Skin irritation – Corrosive category 1C where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days. Eye irritation – Risk of serious damage to eyes. Product Sensitization (Magnusson-Kingman test) guinea pig: may cause sensitization by skin contact. Product Teratogenicity oral rat NOEL (no observed effect level) 250 mg/kg

Component CAS# 69-72-7: Acute Oral Toxicity LD50 (rat) = 891 mg/kg (behavioral somnolence (general depressed activity, Behavioral muscle weakness)). Acute Inhalation LC50 (rat) >900 mg/m<sup>3</sup>, 1 hr. Acute Dermal LD50 (rabbit) >10,000 mg/kg. Skin Irritation (rabbit) – mild skin irritation -24hr. Eye Irritation (rabbit) – severe eye irritation.

## **12. Ecological Information**

No data for the product itself.

Component data:

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Component Benzyl Alcohol: EC50 (48hr) 400 mg/l Daphnia Magna, EC50 (72hr) 2600 mg/l Algae, Biodegradation BOD<sub>2</sub> 62. Slightly or not bioaccumulative. Toxicity to fish: LC50 (96 hr) 10 mg/l Bluegill sunfish (*Lepomis macrochirus*), LC50 (96hr) 460 ml/l Fathead minnow (*Pimephales promelas*), Toxicity to Algae: IC50 (72hr) 700 mg/l

Component METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3: LC50 (96hr) 46-100 mg/l (species golden orfe). EC50 (48hr) 6.84 mg/l (species Daphnia magna). IC50 (72hr) 140-200 mg/l (species algae)

Component cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: LC50 (96hr) 7.8 mg/l (species rainbow trout)

Component CAS# 2855-13-2: Biodegradability 42% and is not readily biodegradable.

Bioaccumulation: - no significant accumulation of the substance in organisms is to be expected.

Mobility: The soil mobility of the substance is only minimally affected by adsorption to soil components. Toxicity to fish: LC50 *Leuciscus idus* 110 mg/l (96hr). Toxicity to Daphnia NOEC 3 mg/l (504hr). EC50 Daphnia magna 23 mg/l (48 hr). ErC50 *scenedesmus subspicatus* 50 mg/l (72 hr). NOEC *scenedesmus subspicatus* 1.5 mg/l (72 hr). Toxicity to bacteria: EC10

*Pseudomonas putida* 1120 mg/l (18 hr).

Component CAS# 69-72-7: Toxicity to Fish LC50 (*Leuciscus idus* – 96 mg/l. Toxicity to Daphnia magna – 105 mg/l, 24 hr. Component Mutagenic Effects: Mutagenic for bacteria and/or yeast. Developmental toxicity: Classified reproductive system toxin/female, development toxin possible.

### 13. Waste Disposal

Waste Disposal Method: Dispose of material as a hazardous waste in accordance with local, state, and federal laws.

### 14. Transport Information

**DOT:** UN1760, Corrosive Liquid N.O.S. (Contains Isophorone Diamine, 2-HydroxyBenzoic Acid), 8, PGIII

**IMO/IMDG:** UN1760, Corrosive Liquid N.O.S. (Contains Isophorone Diamine, 2-HydroxyBenzoic Acid, Benzyl Alcohol), 8, PGIII, Marine Pollutant

### 15. Regulatory Information

No data for the product itself.

Component data:

Component Benzyl Alcohol: E20/22 Harmful by inhalation and if swallowed. On the TSCA list, on DSL Canada.

Components METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3, cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: Included on TSCA, EINECS, AICS, ENCS, ECL, SEPA lists. Canada DSL – not on inventory, Notifications have been submitted to Environment Canada.



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Component CAS# 2855-13-2: Acute health hazard. Ingredients on TSCA. International Chemical status listed/registered – EINECS/ELINCS, DSL, AICS, MITI, TCOL, PICCS, China, New Zealand.

Component CAS# 69-72-7: Component is on the Pennsylvania and New Jersey right to know lists. Components are on the TSCA and Canada DSL lists.

### **16. Other Information**

DISCLAIMER: THE INFORMATION HEREIN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE, HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.

N/A = Not Available

See Section 1 for date of preparation

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