



Top Coat Safety Data Sheet

SDS Revision Date: 5/15/2023

1. Product and Company Identification

Product Name	Top Coat
Product Codes	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	5/15/2023
Chemical Name or Class	Epoxy 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.

P103 Read label before use.

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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

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 is 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 for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. Product may contain ethyl benzene as a component of xylene (IARC 2B). IARC has determined

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that crystalline silica inhaled in the form of quartz is carcinogenic to humans (Group 1- carcinogenic to humans). The NTP classifies respirable crystalline silica as reasonably anticipated to be a carcinogen. 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	40-70
Alkyl Glycidyl Ether	68609-97-2	NONE	NONE	NONE	10-30
Talc	14807-96-6	20 mg/m3	20 mg/m3	20 mg/m3	15-40
*Crystalline Silica (as a component of Talc)	14808-60-7	0.05 mg/m3	0.025 mg/m3	0.05 mg/m3	0.1-1
Limestone	1317-65-3	15 mg/m3	5 mg/m3	NONE	10-30
*Xylene	1330-20-7	100 PPM	100 PPM	150 PPM	0.1-1
*Ethyl Benzene (as a component of Xylene)	100-41-4	100 PPM	100 PPM	125 PPM	<0.1
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
Colors May Contain @ 10-30%:					
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
Silicon Dioxide	7631-86-9	6 mg/m3	10 mg/m3	NONE	
Ferric Oxide	1309-37-1	10 mg/m3	8 mg/m3	NONE	
Iron III Hydroxide	20344-49-4	15 mg/m3	5 mg/m3	NONE	
Yellow Pigment	Not Available	NONE	NONE	NONE	
Zinc Sulfate (Component of Yellow Pigment)	1314-98-3	NONE	NONE	NONE	
Barium Sulfide (Component of Yellow Pigment)	7727-43-7	NONE	NONE	NONE	
Pigment Yellow 65 (Component of Yellow Pigment)	6528-34-3	NONE	NONE	NONE	

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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	
Iron Oxide Yellow	51274-00-1	15 ,g/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. Xylene ACGIH STEL = 150 PPM

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 with a physician.

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

Notes to physicians or first aid responders:

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 dire 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. Seal all partially used containers. 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 cannot 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 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 - Low viscosity liquid in varying colors

Boiling Point or Range - 200 to 279 F

Vapor Density (Air = 1) - N/A

Specific Gravity (H₂O = 1) - 1.5

Evaporation Rate - N/A

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 - CO₂, 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 LD50 >5000 mg/kg (rat), Dermal LD50 >6000 mg/kg (rabbit)

Component CAS# 68609-97-2: possible sensitizer, eye and skin irritant, Oral LD50 >10000 mg/kg (rat), Inhalation LD50 – no microscopic changes

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# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust that can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

Component Limestone: LD50 Oral (rat) = 6450 mg/kg. This product contains greater than 0.1% crystalline silica which is listed as a group 1 carcinogen by IARC, a known carcinogen by NTP, OSHA and as A2 suspected human carcinogen by ACGIH

Component Xylene: Inhalation LC50 26800ppm, Skin LD50 2000 mg/kg, Ingestion LD50 4.3 g/kg. Exposure may affect skin, eye, liver, kidney, nervous system, respiratory system and lungs. High concentrations may lead to nervous system effects. Repeated overexposure has produced toxic effects in developing and young laboratory animals. Aspiration into lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal. Xylene may contain ethyl benzene, and toluene. Ethyl benzene has shown limited evidence of a carcinogenic effect.

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

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

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

12. Ecological Information

No data for the product itself.

Component data:

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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 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# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component Limestone: inert material

Component Xylene: Acute Toxicity: Fish: Toxic 1 < LCECIC50 < 10 mg/l, Aquatic Invertebrates: Toxic 1 < LC/EC/IC50 <10 mg/l, Algae: Toxic 1 < LC/EC/IC50 <10 mg/l.

Mobility – floats on water. If it enters the soil it will be highly mobile and may contaminate groundwater. Oxidises rapidly by photo-chemical reactions in air.

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)

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

13. Waste Disposal

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

14. Transport Information

DOT: Not Regulated

IMO/IMDG: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, 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 CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

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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 Limestone: TSCA listed. Canada Exempt, naturally occurring Substance. EINECS, ECL, ENCS, CIES, PICCS listed. This product is known to the state of California to cause cancer or reproductive effects.

Component Xylene: Xylene contains EPCRA section 313 chemicals subject to the reporting requirements of the emergency planning and community right to know act of 1968. (Maximum wt % for components of xylene are: M-Xylene CAS# 108-38-3 is 46%, P-Xylene CAS# 106-42-3 is 20%, Ethylbenzene CAS# 100-41-4 is 19%, O-Xylene CAS# 95-47-6 is 16%..

Xylene and its components are on the California Proposition 65 list for developmental toxicity, Reproductive toxicity and carcinogen list. Ingredients are on the TSCA list, DSL Canada, AICS, China, EINECS, ENCS, Korea, New Zealand, Philippines inventory lists and on the Massachusetts, New Jersey, Pennsylvania right to know lists Ethyl Benzene a component of xylene has been designated by IARC as a possible carcinogen to humans based on increased tumor incidence in laboratory animals. risk phrases R10 Flammable R20/21 Harmful by inhalation and in contact with skin, R38 irritating to skin, S25 Avoid contact with eyes.

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

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

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

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

Component CAS# 1309-37-1: Component is on the TSCA list and Canada DSL.

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

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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. Component is on the TSCA list and Canada DSL.

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

16. Other Information

DISCLAIMER: The information Contained 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	Top Coat
Product Codes	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	5/15/2023
Chemical Name or Class	Polyamine mixture

2. Hazards Identification

GHS Classification: Acute toxicity oral category 4, skin corrosion category 1B, serious eye damage category 1, skin sensitization category 1A, acute inhalation toxicity category 4, germ cell mutagenicity category 2, toxic to reproduction category 2, specific target organ toxicity repeated exposure category 2, aquatic toxicity hazard (acute) category 2, aquatic toxicity hazard (chronic) category 1

GHS Label Elements and Precautionary Statements:

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



Hazard Statements:

Warning: Harmful if swallowed.

Danger: Causes severe skin burns and eye damage.

Warning: May cause an allergic skin reaction.

Danger: Causes serious eye damage

Warning: Suspected of damaging the fertility or the unborn child.

Warning: May cause damage to organs through prolonged or repeated exposure (skin, central nervous system (CNS)).

Warning: Suspected of causing genetic defects.

Warning: Harmful if inhaled.

Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Precautionary statements:

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P102 Keep out of reach of children.

P103 Read label before use.

P264 Wash hands thoroughly after handling.

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

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

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.

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

P201 Obtain special instructions before use.

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

P273 Avoid release to the environment.

Response;

P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P330 Rinse mouth.

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.

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

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.

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

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

P314 Get medical advice/attention if you feel unwell

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

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

HMIS Hazards Classification

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

Potential Health Effects

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

Skin: May cause irritation or possible 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

Additional carcinogenicity information:

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
3-Aminomethyl-3,5,5-Trimethyl Cyclohexane	2855-13-2	NONE	NONE	NONE	10-30
Cycloaliphatic Amine Adduct	68609-08-5	NONE	NONE	NONE	10-30
Nonyl Phenol	84852-15-3	NONE	NONE	NONE	7-13

No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

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 victim to fresh air and administer oxygen if necessary.

5. Fire Fighting Measures

Flammable limits in air, (% by volume)	Upper: not available Lower: not available
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 fire fighting. 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 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 components to become familiar with all hazards prior to using the 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 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: 401 to 560 F

Vapor density (air = 1): N/A

Specific gravity (h₂o = 1): 1.0

Evaporation rate: N/A

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 contact with open flames and all sources of ignitions and sparks.

Incompatibility (material to avoid): Avoid contact with strong oxidizing agents, mineral acids, and epoxy resins in uncontrolled amounts.

Hazardous Decomposition or by-products: Co, CO₂, NO_x

Hazardous Polymerization: Will not occur.

11. Toxicological Information

No data for the product itself.

Component data:

Component CAS# 2855-13-2: Oral LD₅₀ rat 1030 mg/kg, Skin irritation – Corrosive subcategory 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 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 Nonyl Phenol: Median Lethal Dose Oral: LD50 0.58g/kg (rat) moderately toxic. Dermal LD50 2.14g/kg (rabbit) slightly toxic. Skin Draize Test, rabbit, : 500 mg/m³ 24hr – corrosive. Eyes Draize test rabbit, 57.00/110 – extremely irritating. Component is a possible risk of impaired fertility.

12. Ecological Information

No data for the product itself.

Component data:

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 Benzyl Alcohol: EC50 (48hr) 400 mg/l *Daphnia Magna*, EC50 (72hr) 2600 mg/l Algae, Biodegradation BOD₂ 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 Nonyl Phenol: Ecotoxicity: *Daphnia* EC50: 0.14-0.44 mg/l, 48 hr. Component is not readily biodegradable, log Pow: 3-4. Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.. Aquatic Toxicity LC50 96 hr, toxicity rating is <0.10 ppm – extremely toxic

13. Waste Disposal

Waste Disposal Method: Dispose of material as a hazardous waste according to federal, state, and local regulations.

14. Transport Information

DOT: UN1760, Corrosive Liquid N.O.S. (Contains Isophorone Diamine, Nonyl Phenol), 8, PG III

IMO/IMDG: UN1760, Corrosive Liquid N.O.S. (Contains Isophorone Diamine, Nonyl Phenol), 8, PG III, Marine Pollutant

15. Regulatory Information

No data for the product itself.

Component data:

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

Component CAS# 68609-08-5 is on the Canada DSL and TSCA lists.

Component Nonyl Phenol: This component is listed on TSCA, EINECS, ACIS, MITI and Canada DSL lists.

16.Disclaimer

DISCLAIMER: The information Contained 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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