Revision: 3

1 Identification of the substance/mixture and the company/undertaking

1.1 Product identifier Trade name: Non-Corrosive Backing Resin

1.2 Application of the substance / the mixture: Epoxy backing

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:

VCOPPS.

Copps Industries, Inc. 10500 N Commerce Street Mequon, WI 53092 Phone: (262) 238-1700

1.4 Emergency telephone number: ChemTel Inc.

(800) 255-3924, +1 (813) 248-0585

2 Hazards identification

2.1 GHS Classification of the substance or mixture

Skin Irritant 2; H315: Causes skin irritation. Eye Irritant 2; H319: Causes serious eye irritation. Skin Sensitizer 1; H317: May cause and allergic skin reaction.

2.2 GHS Label elements

Hazard pictograms/symbols



Signal word: Warning

Hazard statements:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H317: May cause and allergic skin reaction.

Precautionary statements:

P280: wear protective gloves / eye protection.

P273: Avoid release to the environment.

P264: Wash thoroughly after handling.

P261: Avoid breathing mist/vapours/spray. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do .Continue rinsing.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

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

Additional information: Contains epoxy constituents. May produce an allergic reaction.

HMIS Rating:

Health: 2 Flammability: 1 Physical Hazard: 0

3 Composition/information on ingredients

3.2 Mixture

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous componen	ts:	
CAS: 25068-38-6	Reaction product: bisphenol - A- (epichlorohydrin) epoxy resin (number average molecular weight≤700)	10-25%
Trade Secret	Glycidyl ether	<10%
Trade Secret	Phosphite diluent	<2%
Trade Secret	Epoxy resin	<2%

In conformity with 29CFR 1910.1200(i) the specific chemical identity may be withheld as Trade Secret, while all health/safety properties and effects are included in the SDS.

4 First aid measures

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident. Take affected persons out into the fresh air.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: immediately rinse with water. If skin irritation continues, consult a doctor.

After eye contact: Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water. Do not Induce vomiting; call for medical help immediately. **4.2 Most important symptoms and effects, both acute and delayed:** Allergic reactions. Nausea, Coughing, Gastric or intestinal disorders, Irritant to skin and mucous membranes. Irritant to eyes.

4.3 Indication of any immediate medical attention and special treatment needed: Contains reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700). May produce an allergic reaction. If necessary oxygen respiration treatment. Later observation for pneumonia and pulmonary edema. Medical supervision for at least 48 hours.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Water haze or fog, Foam, Fire-extinguishing powder, Carbon dioxide.

For safety reasons unsuitable extinguishing agents: Water with full jet, Water spray

5.2 Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for the firefighters

Protective equipment: Wear self-contained respiratory protective device, Wear fully protective suit.

Additional information: Cool endangered receptacles with water fog or haze. Eliminate all ignition sources if safe to do so.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. Inform respective authorities in case of seepage into water course or sewage system. Prevent from spreading (e.g. by damming–in or oil barriers).
6.3 Methods and material for containment and cleaning up: Absorb liquid components with liquid-binding material. Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling and storage

7.1 Precautions for safe handling: Use only in well-ventilated areas. Store in cool, dry place in tightly closed receptacles (60-80°F recommended).

7.2 Conditions for safe storage, including any incompatibilities: Use only receptacles specifically permitted for this substance/product. Avoid storage near extreme heat, ignition sources or open flame.

Further Information about storage conditions: Keep container tightly sealed. Store in an area with adequate ventilation.

8 Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Engineering controls Provide readily accessible eye wash stations and safety showers. Provide ventilation adequate to ensure concentrations are minimized.

8.3 Personal protective equipment

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

Respiratory protection: Not required under normal conditions of use. Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use respiratory protection when grinding or cutting material.

Hand protection: Protective, impervious gloves. (Neoprene, PVC, Nitrile rubber) The glove material has to be impermeable and resistant to the product / the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection: Safety glasses with side shields. Contact lenses should not be worn.

Skin and Body protection: Protective work clothing. Where potential exposure warrants, rubber or plastic boots and chemically resistant protective suit.

9 Physical and chemical properties

Appearance Form:Viscous liquidColour:Light tanOdour:SweetOdour threshold:No data availablepH:No data availableMelting point/range:No data availableBoiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableViscosity22,000-32,000 cps	9.1 Information on basic physical and chemical pr General Information	operties
Colour:Light tanOdour:SweetOdour threshold:No data availablepH:No data availableMelting point/range:No data availableBoiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available		Viscous liquid
Odour:SweetOdour threshold:No data availablepH:No data availableMelting point/range:No data availableBoiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available		•
pH:No data availablepH:No data availableMelting point/range:No data availableBoiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):No data availableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Odour:	•
Melting point/range:No data availableBoiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Odour threshold:	No data available
Boiling point/range:>392 °F / >200 °CFlash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	pH:	No data available
Flash point:>302 °F / >150 °CEvaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility withNot miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Melting point/range:	No data available
Evaporation rate:No data availableFlammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility withNot miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Boiling point/range:	>392 °F / >200 °C
Flammability (solid, gaseous):Not applicableUpper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Flash point:	>302 °F / >150 °C
Upper/lower flammability or explosive limit:Not applicableVapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Evaporation rate:	No data available
Vapor pressure:No data availableVapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Flammability (solid, gaseous):	Not applicable
Vapor density:No data availableRelative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Upper/lower flammability or explosive limit:	Not applicable
Relative Density at 20°C:1.82g/cm³Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available	Vapor pressure:	No data available
Solubility in / Miscibility with Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available		No data available
Water:Not miscible or difficult to mix.Partition coefficient (n-octanol/water):No data availableAuto/Self-ignition temperature:No data availableDecomposition temperature:No data available		1.82g/cm ³
Partition coefficient (n-octanol/water): No data available Auto/Self-ignition temperature: No data available Decomposition temperature: No data available		Not missible or difficult to mix
Auto/Self-ignition temperature:No data availableDecomposition temperature:No data available		
Decomposition temperature: No data available	· · · · ·	
• •	• •	
VISCOSITY 22,000-32,000 Cps	· ·	
•	VISCOSITY	22,000-32,000 Cps

3 of 12 (K-817R)

10 Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions: Reacts with strong alkali, Exothermic polymerization, Reacts with strong acids and oxidizing agents, Reacts with catalysts.

10.4 Conditions to avoid: Avoid contact with strong oxidizing agents, excessive heat or flames.

10.5 Incompatible materials: Strong acids, bases and oxidizing agents.

10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide.

11 Toxicological information

11.1 Information on likely routes of exposure:

Inhalation: May cause respiratory irritation

Ingestion:	No data
Skin contact:	May cause skin irritation

Eye contact: May cause eye irritation

Dermal Inhalation

11.2 Symptoms related to physical, chemical and toxicological characteristics: No available data

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure:

(Data for primary hazardous component: Reaction product: bisphenol - A- (epichlorhydrin) epoxy resin)

Acute toxic: Oral

LD50 > 2,000 mg/kg (rat) LD50 > 2,000 mg/kg (rat)	
No data	

Skin Corrosive/irritant:

Test material was slightly irritating to skin in key studies. For the skin, mean erythema and edema scores were 0.8 and 0.5 respectively.

Serious eye damage/eye irritation:

Test material was slightly irritating to the eye in key studies. The mean eye score was 0.4 Respiratory sensitization: No data available

Skin sensitization:

In a local lymph node assay, the concentration that would cause a 3-fold increase in proliferation (EC-3) was calculated to be 5.7% which is consistent with moderate dermal sensitization potential.

11.4 Numerical measures of toxicity: No data available for mixture.

Additional toxicological information: The product shows the following dangers according to the calculation method of the General EU, Classification Guidelines for Preparations as issued in the latest version: Irritant, Danger through skin absorption. Toxic and /or corrosive effects may be delayed up to 24 hours. Inhalation of concentrated vapours as well as oral intake will lead to anesthesia-like conditions and headache, dizziness, etc.

12 Ecological information

12.1 Toxicity

Aquatic toxicity:

(Data taken from SDS of primary hazardous component: Reaction product: bisphenol - A- (epichlorhydrin) epoxy resin)

Fish	96hr-LC50 = 3.6mg/L test mat. <i>Oncorhynchus mykiss</i> (direct application, nominal) (OECD Guideline 203)
	LC50 1.41 mg/L 96hr Oryzias latipes
Crustacea	48hr-EC50 = 2.8mg/L test mat Daphnia magna
	(direct application, nominal, based on: mobility) (OECD Guideline 202) EC50 1.7mg/L 48hr
Aquatic Plant	72hr-EC50 > 11 mg/L <i>Scenedesmus capricornutum</i> water soluble fraction (meas. (arithm. mean)) based on: growth rate (EPA-660/3-75-009)

12.2 Persistence and degradability: No data available.

12.3 Bioaccumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Safety Data Sheet

12.5 Results of PBT and vPvB assessment: PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available

13 Disposal considerations

13.1 Waste treatment methods

Waste from residue/unused product: This product should not be allowed to enter drains, water courses or the soil. Dispose of this material in a safe manner and in accordance with federal, state and local regulations **Contaminated packaging:** Disposal must be made in accordance with official federal, state and local regulations.

14 Transport information

DOT

IATA	UN number:	Not Regulated
IMDG	UN number:	Not Regulated
TDG	UN number:	Not Regulated
	UN number:	Not Regulated

15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

United States (USA)

SARA
Section 355 (extremely hazardous substances):
None of the ingredients is listed.
Section 313 (Specific toxic chemical listings):
Component(s) above 'de minimus' level: None
TSCA (Toxic Substances Control Act):
All the ingredients are listed.

Chemicals known to cause cancer or reproductive toxicity: Ethylene glycol

Proposition 65 (California):

Canada Canadian Domestic Substances List (DSL): All ingredients are listed. Canadian Ingredient Disclosure list (limit 0.1%) None of the ingredients is listed. Canadian Ingredient Disclosure list (limit 1%) 101-02-0 (Triphenyl phosphite)

15.2 Chemical Safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Revision: 3

Safety Data Sheet

Revision Date 08.04.2022

Revision: 3

Abbreviation and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals ACGIH: American Conference of Governmental Industrial Hygienist. EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substance CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada)

Revision: 2

1 Identification of the substance/mixture and the company/undertaking

1.1 Product identifier Trade name: Non-Corrosive Backing Hardener

1.2 Application of the substance / the mixture: Epoxy Backing Hardener

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:

V COPPS.

Copps Industries, Inc. 10500 N Commerce Street Mequon, WI 53092 Phone: (262) 238-1700

1.4 Emergency telephone number: ChemTel Inc. (800) 255-3924, +1 (813) 248-0585

2 Hazards identification

2.1 GHS Classification of the substance or mixture

Acute toxicity - Inhalation Category 3 Acute toxicity - Dermal Category 4 Skin corrosion - Category 1B Serious Eye Damage - Category 1 Skin sensitization - Category 1 Germ cell mutagenicity - Category 2 Specific target organ toxicity - repeated exposure - Category 2

2.2 GHS Label elements

Hazard pictograms/symbols



Signal word: Danger

Hazard statements:

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

- H317: May cause an allergic skin reaction.
- H331: Toxic if inhaled.

H341: Suspected of causing genetic defects

H373: May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:

P201: Obtain special instructions before use.

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

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

P264: Wash hands thoroughly after handling.

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

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

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

P281: Use personal protective equipment as required.

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.

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

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

Safety Data Sheet

Revision Date 08.04.2022

Revision: 2

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

P310: Immediately call a POISON CENTRE or doctor/physician.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P363: Wash contaminated clothing before reuse.

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

P405: Store locked up.

P501: Disposal of contents/container to be specified in accordance with regulations.

Additional information: This product contains a component that is toxic by inhalation when aerosolized or sprayed. Please refer to Sections 11 for toxicity information. If product is not being aerosolized or sprayed, the inhalation toxicity may not be applicable.

HMIS Rating:

Health:	2
Flammability:	1
Physical Hazard:	0
•	

3 Composition/information on ingredients

3.2 Mixture

Description: Mixture of substances listed below with potential nonhazardous additions.

Dangerous compone	ents:	
Trade Secret	Modified aliphatic amine	30-50%
Trade Secret	Aliphatic amine adducts	15-35%
CAS: 112-24-3	Triethylenetetramine	15-35%
CAS: 108-95-2	Phenol	<10%

In conformity with 29CFR 1910.1200(i) the specific chemical identity may be withheld as Trade Secret, while all health/safety properties and effects are included in the SDS.

4 First aid measures

4.1 Description of first aid measures

General information: 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

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately.

After eye contact: Rinse immediately with plenty of water for at least 15 minutes. If symptoms persist, consult a doctor. After ingestion: Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side. Do not Induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed: Repeated and/or prolonged exposures to low concentrations of vapors or aerosols may cause: sore throat, asthma, eye disease, kidney disorders, liver disorders, skin disorders and allergies.

4.3 Indication of any immediate medical attention and special treatment needed: No information.

5 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Foam, Fire-extinguishing powder, Carbon dioxide, Limestone powder.

5.2 Specific hazards arising from the substance or mixture: May generate ammonia gas. May generate toxic nitrogen oxide gases. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

5.3 Advice for the firefighters

Protective equipment: Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information: Cool endangered receptacles with water fog or haze. Eliminate all ignition sources if safe to do so.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources.

6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water. Inform respective authorities in case of seepage into water course or sewage system. Prevent from spreading (e.g. by damming-in or oil barriers).

6.3 Methods and material for containment and cleaning up: Send for recovery or disposal in suitable receptacles. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

7 Handling and storage

7.1 Precautions for safe handling: Use only in well-ventilated areas. Store in cool, dry place in tightly closed receptacles (60-80°F recommended).

7.2 Conditions for safe storage, including any incompatibilities: Use only receptacles specifically permitted for this substance/product. Avoid storage near extreme heat, ignition sources or open flame.

Further Information about storage conditions: Keep container tightly sealed. Store in an area with adequate ventilation.

8 Exposure controls/personal protection

8.1 Control parameters

Exposure Limits:

Triethylenetetramine	Time Weighted Average (TWA): WEEL	1 ppm	6 mg/m3
Phenol	Time Weighted Average (TWA): ACGIH	5 ppm	-
Phenol	Recommended exposure limit (REL): NIOSH	5 ppm	19 mg/m3
Phenol	Ceiling Limit Value and Time Period (if specified): NIOSH	15.6 ppm	60 mg/m3
Phenol	Permissible exposure limit: OSHA Z1	5 ppm	19 mg/m3
Phenol	Time Weighted Average (TWA): OSHA Z1A	5 ppm	19 mg/m3
Phenol	Time Weighted Average (TWA) Permissible Exposure Limit (PEL): US CA OEL	5 ppm	19 mg/m3
Phenol	Time Weighted Average (TWA): TN OEL	5 ppm	19 mg/m3

8.2 Engineering controls Provide readily accessible eye wash stations and safety showers. Provide ventilation adequate to ensure concentrations are minimized.

8.3 Personal protective equipment

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.

Respiratory protection: Not required under normal conditions of use. Use suitable respiratory protective device in case of insufficient ventilation. For spills, respiratory protection may be advisable. Use respiratory protection when grinding or cutting material.

Hand protection: Protective, impervious gloves. (Neoprene, Butyl-rubber, Nitrile rubber) The glove material has to be impermeable and resistant to the product / the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection: Face shield with safety glasses or goggles underneath. Contact lenses should not be worn. **Skin and Body protection:** Protective work clothing. Where potential exposure warrants, rubber or plastic boots and chemically resistant protective suit.

9 Physical and chemical properties

9.1 Information on basic physical and c General Information Appearance	chemical properties
Form:	Liquid
Colour:	Blue
Odour:	Amine
Odour threshold:	No data available
pH:	Alkaline
Melting point/range:	No data available

9 of 12 (K-817H)

>392 °F / >200 °C Boiling point/range: >212 °F / >100 °C Flash point: Evaporation rate: No data available Flammability (solid, gaseous): Not applicable Upper/lower flammability or explosive limit: Not applicable Vapor pressure: No data available Vapor density: No data available Relative Density at 20°C: 1.06g/cm³ Solubility in / Miscibility with Water: Not miscible or difficult to mix. Partition coefficient (n-octanol/water): No data available No data available Auto/Self-ignition temperature: Decomposition temperature: No data available Viscosity 700-1400 cps

10 Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications. **10.3 Possibility of hazardous reactions:** Reacts with strong alkali, Exothermic polymerization, Reacts with strong acids and oxidizing agents, Reacts with catalysts.

10.4 Conditions to avoid: Avoid contact with strong oxidizing agents, excessive heat or flames.

10.5 Incompatible materials: Strong acids, bases and oxidizing agents.

10.6 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.

11 Toxicological information

11.1 Information on likely routes of exposure:

Skin contact:	Causes skin irritation
Eye contact:	Severe eye irritation.
ngestion:	No data available.
nhalation:	No data available.

11.2 Symptoms related to physical, chemical and toxicological characteristics: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat. Liver disorders (such as jaundice or liver enlargement)., Kidney disorders (such as edema, or proteinuria)., Asthma., Adverse respiratory effects (such as cough, tightness of chest or shortness of breath)., Skin disorders and Allergies., Adverse skin effects (such as rash, irritation or corrosion)., Adverse eye effects (such as conjunctivitis or corneal damage)., Eye disease.

11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Repeated or prolonged contact causes sensitization, asthma and eczemas. Skin disorders and Allergies., Adverse skin effects (such as rash, irritation or corrosion)., Adverse eye effects (such as conjunctivitis or corneal damage)., Eye disease. **11.4 Numerical measures of toxicity:** No data is available for full mixture.

12 Ecological information

12.1 Aquatic toxicity: No data available on the product itself.

Toxicity to daphnia Components Phenol EC50 (48 h): 4 - 7 mg/l

Species: Daphnia

12.2 Persistence and degradability: No data available.

- **12.3 Bioaccumulative potential:** No data available on the product itself.
- 12.4 Mobility in soil: No data available.

12.5 Other adverse effects: No further relevant information available.

Revision: 2

13 Disposal considerations

13.1 Waste treatment methods

Waste from residue/unused product: This product should not be allowed to enter drains, water courses or the soil. Dispose of this material in a safe manner and in accordance with federal, state and local regulations Contaminated packaging: Disposal must be made in accordance with official federal, state and local regulations.

14 Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

TDG

Not dangerous goods

15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Toxic Substance Control Act (TSCA) 12(b) Component(s): None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or
		polymer substance, monomers
		included on EINECS inventory or
		no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

SARA

Section 355 (extremely hazardous substances):		
None of the ingredients is listed.		
Section 313 (Specific toxic chemical listings):		
Component(s) above 'de minimus' level: Phenol		
TSCA (Toxic Substances Control Act):		
All the ingredients are listed.		

Proposition 65 (California):

Chemicals known to cause cancer: None

15.2 Chemical Safety assessment: A Chemical Safety Assessment has not been carried out.

Revision: 2

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviation and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labeling of Chemicals ACGIH: American Conference of Governmental Industrial Hygienist. EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substance CAS: Chemical Abstracts Service (division of the American Chemical Society) HMIS: Hazardous Materials Identification System (USA) WHMIS: Workplace Hazardous Materials Information System (Canada)