



## SAFETY DATA SHEET

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ARMOR-TEK 830 PART A  
**PRODUCT CODES:** 830

**MANUFACTURER:** KRETETEK INDUSTRIES INC  
**STREET ADDRESS:** 66 RIVER ROAD  
**CITY, STATE, ZIP:** HUDSON NH 03051

**INFORMATION PHONE:** 855-573-8383  
**EMERGENCY PHONE:** Chemtrec 800-424-9300  
**FAX PHONE:** 855-573-8383

**DATE REVISED:** 2/1/23

**Chemical Name or Class:** Epoxy coating

### SECTION 2: HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

Skin sensitization: Category 1B

Carcinogenicity: Category 2

Appearance

Physical state Liquid

GHS Label elements, including precautionary statements

Warning

Hazard statements

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

Suspected of causing cancer.



Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling

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

Contaminated work clothing must not be allowed out of the workplace

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of water and soap

Take off contaminated clothing and wash it before reuse

If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful if swallowed. May be harmful in contact with skin. Harmful to aquatic life with long lasting effects.

Unknown acute toxicity

100 % of the mixture consists of ingredient(s) of unknown toxicity

82 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

83 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## SECTION 3: COMPOSITION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture: consisting of the following components.

30583-72-3	Cyclohexanol, 4,4'-(1-methylethylidene) bis-, polymer with (chloromethyl)oxirane	32%
15625-89-5	Trimethylolpropane triacrylate	17%
41556-26-7	Bis (1,2,2,6,6-pentamethyl-4- piperidiny)l) sebacate	1%

## SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice: Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Inhalation: Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

Skin contact: May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider: Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed Symptoms Itching. Rashes. Hives. Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

## SECTION 5: FIRE FIGHTING MEASURES

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire: CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media: Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical: Product is or contains a sensitizer. May cause sensitization by skin contact.

Hazardous Combustion Products: Carbon oxides.

Explosion Data:

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge: None.

Special protective equipment for fire-fighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **SECTION 6: RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Other Information: Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## **SECTION 7: HANDLING AND STORAGE**

Precautions for safe handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.

Keep out of the reach of children.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters

Exposure Limits: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls

Showers

Eyewash stations

Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).

Hand protection: Wear suitable gloves. Impervious gloves.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations: Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state: Liquid

Appearance: Clear

Odor: Slight

Color: No information available

Odor Threshold: No data available

pH: Unknown

Melting / freezing point: No data available

Boiling point / boiling range: No data available

Flash Point: 102 C / 216 F

Evaporation Rate: No data available

Flammability (solid, gas): No data available

Flammability Limit in Air: None known

Upper flammability limit: No data available

Lower flammability limit: No data available

Vapor pressure: No data available

Vapor density: No data available

Relative density: 1.113

Water Solubility: Insoluble in water

Solubility(ies): No data available

Partition coefficient: n-octanol/water: Not Applicable

Autoignition temperature: No data available

Decomposition temperature: No data available

Kinematic viscosity: No data available

Dynamic viscosity: No data available

## SECTION 10: HANDLING AND STORAGE

Reactivity: No information available.

Chemical stability Stable under normal conditions. Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to avoid None known based on information supplied. Incompatible materials Strong acids. Strong bases. Strong oxidizing agents. Hazardous Decomposition Products Carbon oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation: Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact: Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.

Skin contact: May cause sensitization by skin contact. Specific test data for the substance or mixture is not available.

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 4,920.80 mg/kg

ATEmix (dermal) 5,000.00 mg/kg  
Unknown acute toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity  
82 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
83 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Trimethylolpropane triacrylate  
Oral LD50: 5190 µL/kg ( Rat ) = 5190 mg/kg ( Rat )  
Dermal LD50: 5000 mg/kg ( Rabbit )  
Bis (1,2,2,6,6-pentamethyl-4-piperid inyl) sebacate  
Oral LD50: 2615 mg/kg ( Rat )  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Skin corrosion/irritation: Classification based on data available for ingredients. Irritating to skin.  
Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes serious eye irritation.  
Respiratory or skin sensitization: May cause sensitization by skin contact.  
Germ cell mutagenicity: No information available.  
Carcinogenicity: Contains a known or suspected carcinogen. Classification based on data available for ingredients. Suspected of causing cancer.  
Ingredients listed as a carcinogen: Trimethylolpropane triacrylate 15625-89-5: IARC Group 2B  
Reproductive toxicity: No information available.  
STOT - single exposure: No information available.  
STOT - repeated exposure: No information available.  
Aspiration hazard: No information available.

## SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic life with long lasting effects.  
Cyclohexanol, 4,4' -(1-methylethylidene) bis-, polymer with (chloromethyl)oxirane  
Toxicity to Fish: 96h LC50: 96h LC50: = 11.5 mg/L (Oncorhynchus mykiss)  
Bis (1,2,2,6,6-pentamethyl-4-  
Toxicity to Fish: 96h LC50: = 0.97 mg/L (Lepomis macrochirus)  
Daphnia Magna (Water Flea): 24h EC50: = 20 mg/L(Daphnia magna)  
Persistence and Degradability: No information available.  
Bioaccumulation:  
Isophorone Diamine: Low Pow 0.79  
Bis (1,2,2,6,6-pentamethyl-4-: Low Pow 0.37  
Mobility: No information available.  
Other adverse effects: No information available.

## SECTION 13: WASTE DISPOSAL

Waste treatment methods:  
Waste from residues/unused products: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.  
Contaminated packaging: Do not reuse empty containers  
California Waste Codes; 331

## SECTION 14: TRANSPORTATION INFORMATION

DOT: Not regulated  
IATA: Not regulated  
IMDG/IMO: Not regulated

## SECTION 15: REGULATORY INFORMATION

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA Contact supplier for inventory compliance status.

DSL/NDSL Contact supplier for inventory compliance status.

EINECS/ELINCS Contact supplier for inventory compliance status.

ENCS Contact supplier for inventory compliance status.

KECL Contact supplier for inventory compliance status.

PICCS Contact supplier for inventory compliance status.

AICS Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

## SECTION 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.

# SAFETY DATA SHEET

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ARMOR-TEK 830 PART B  
**PRODUCT CODES:** 830

**MANUFACTURER:** KRETETEK INDUSTRIES INC  
**STREET ADDRESS:** 66 RIVER ROAD  
**CITY, STATE, ZIP:** HUDSON NH 03051

**INFORMATION PHONE:** 855-573-8383  
**EMERGENCY PHONE:** Chemtrec 800-424-9300  
**FAX PHONE:** 855-573-8383

**DATE REVISED:** 2/1/23

**Chemical Name or Class:** Epoxy coating

## SECTION 2: HAZARDS IDENTIFICATION

Classification

Acute toxicity-Oral: Category 4

Skin Corrosion/irritation: Category 1 Sub-category B

Serious eye damage/eye irritation: Category 1

Germ cell mutagenicity: Category 2

Reproductive Toxicity: Category 1B

Specific target organ toxicity (repeated exposure): Category 1

Flammable Liquids: Category 4

Appearance Clear

Physical state Liquid

Odor Amine

GHS Label elements, including precautionary statements

Danger

Hazard statements

Harmful if swallowed

Causes severe skin burns and eye damage

Suspected of causing genetic defects

May damage fertility or the unborn child

Causes damage to organs through prolonged or repeated exposure

Combustible Liquid



Precautionary Statements – Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood Wear protective gloves/protective clothing/eye protection/face protection Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product Do not breathe dust/fume/gas/mist/vapors/spray

Keep away from flames and hot surfaces. - No smoking

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor

Specific treatment (see supplemental first aid instructions on this label)

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor

Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing Immediately call a POISON CENTER or doctor

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth

Do NOT induce vomiting

Fire

In case of fire: Use CO2, dry chemical, or foam to extinguish

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

May be harmful in contact with skin. Harmful to aquatic life.

Unknown acute toxicity

100 % of the mixture consists of ingredient(s) of unknown toxicity 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## SECTION 3: COMPOSITION ON INGREDIENTS

Chemical characterization: Mixtures

Description: Mixture: consisting of the following components.

919-30-2	3-(Triethoxysilyl)propylamine	98%
77-58-7	Dibutyltin Dilaurate	2%

## SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation: Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.



Self-protection of the first aider: Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8). Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed Symptoms

Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated.

Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

## **SECTION 5: FIRE FIGHTING MEASURES**

Extinguishing media;

Suitable extinguishing agents: Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. Alcohol resistant foam.

Large fire: CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media: Do not scatter spilled material with high pressure water streams

Specific hazards arising from the chemical: Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Combustion Products: Carbon oxides

Explosion Data: Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: Yes

Special protective equipment for fire-fighters: Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **SECTION 6: RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Personal precautions: Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

Other Information: Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up: Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

## **SECTION 7: HANDLING AND STORAGE**

Precautions for safe handling

Advice on safe handling: Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits:

Chemical Name: Dibutyltin dilaurate

ACGIH TLV: STEL: 0.2 mg/m<sup>3</sup> Sn TWA: 0.1 mg/m<sup>3</sup> Sn S\*

OSHA PEL: TWA: 0.1 mg/m<sup>3</sup> Sn (vacated) TWA: 0.1 mg/m<sup>3</sup> Sn (vacated) S\*

NIOSH IDLH: IDLH: 25 mg/m<sup>3</sup> Sn TWA: 0.1 mg/m<sup>3</sup> except Cyhexatin Sn

Chemical Names: Dibutyltin dilaurate

Alberta: TWA: 0.1 mg/m<sup>3</sup> STEL: 0.2 mg/m<sup>3</sup> Skin

British Columbia: TWA: 0.1 mg/m<sup>3</sup> STEL: 0.2 mg/m<sup>3</sup> Skin

Ontaria TQAEV: TWA: 0.1 mg/m<sup>3</sup> STEL: 0.2 mg/m<sup>3</sup> Skin

Quebec: TWA: 0.1 mg/m<sup>3</sup> STEL: 0.2 mg/m<sup>3</sup> Skin

Other Exposure Guidelines: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls Engineering controls: Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment Eye/face protection Face protection shield.

Hand protection: Wear suitable gloves. Impervious gloves.

Skin and body protection: Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

Respiratory protection: No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations: Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Odor	Liquid Clear Amine
Color	No information available No data
Odor Threshold	available

Property	pH	Values	Remarks	Method
Melting / freezing point	Boiling point	UNKNOWN		
/ boiling range	Flash Point	No data available	None known	
Evaporation Rate		217 ° C / 423 ° F 93 C / 199 F		
		No data available	None known	
Flammability (solid, gas)		No data available	None known	
Flammability Limit in Air			None known	
Upper flammability limit		No data available		
Lower flammability limit		No data available		
Vapor pressure		No data available	None known	
Vapor density		No data available	None known	
Relative density	Water Solubility	0.952		
Solubility(ies)		Insoluble in water No data available	None known	
Partition coefficient: n-octanol/water		Not Applicable		
Autoignition temperature		No data available	None known	
Decomposition temperature		No data available	None known	

Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Other Information Explosive properties	No information available	
Oxidizing properties Softening Point	No information available	No
Molecular Weight VOC Content (%)	information available	No information available
Liquid Density	information available	No information available
Bulk Density Particle Size	information available	No information available
Particle Size Distribution	information available	No information available
	No information available	

## SECTION 10: HANDLING AND STORAGE

Reactivity: No information available

Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: None under normal processing

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to avoid Heat, flames and sparks. Exposure to air or moisture over prolonged periods.

Incompatible materials Acids. Bases. Oxidizing agent.

Hazardous Decomposition Products Carbon oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation: Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components).

Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours.

Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

Eye contact: Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact: Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May be harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1,332.30 mg/kg

ATEmix (dermal) 3,603.80 mg/kg

Unknown acute toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

3-(Triethoxysilyl) propylamine  
 Oral LD50: 1780 mg/kg ( Rat )  
 Dermal LD50: 4 mL/kg ( Rabbit ) = 4290 mg/kg ( Rabbit )  
 Inhalation: > 7.35 mg/L ( Rat ) 4 h  
 Dibutyltin dilaurate  
 Oral LD50: 175 mg/kg ( Rat ) = 45 mg/kg (Rat)  
 Dermal LD50: 630 mg/kg ( Rabbit )  
 Delayed and immediate effects as well as chronic effects from short and long-term exposure Skin corrosion/irritation Classification based on data available for ingredients. Causes burns.  
 Serious eye damage/eye irritation: Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.  
 Respiratory or skin sensitization: No information available.  
 Germ cell mutagenicity: Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.  
 Carcinogenicity: No information available.  
 Reproductive toxicity: Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.  
 STOT - single exposure: No information available.  
 STOT - repeated exposure: Causes damage to organs through prolonged or repeated exposure.  
 Aspiration hazard: No information available.

## SECTION 12: ECOLOGICAL INFORMATION

Marine Pollutant: This product contains a chemical which is listed as a severe marine pollutant according to DOT  
 Ecotoxicity: Harmful to aquatic life.  
 3-(Triethoxysilyl) propylamine  
 Toxicity to Fish: 96h LC50: > 934 mg/L (Danio rerio)  
 Dibutyltin dilaurate  
 Toxicity to Fish: 96h LC50/48h LC50: = 2 mg/L (Oryzias latipes)  
 Toxicity to Microorganisms: EC50 = 0.576 mg/L 30 min  
 Persistence and Degradability: No information available.  
 Bioaccumulation: There is no data for this product.  
 Mobility: No information available.  
 Other adverse effects: No information available.

## SECTION 13: WASTE DISPOSAL

Waste treatment methods:  
 Waste from residues/unused products: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.  
 Contaminated packaging: Do not reuse empty containers  
 California Waste Codes; 331  
 This product contains one or more substances that are listed with the State of California as a hazardous waste.

## SECTION 14: TRANSPORTATION INFORMATION

DOT	
Proper Shipping Name	CONSUMER COMMODITY
Hazard Class	ORM-D
Marine Pollutant according to DOT	This product contains a chemical which is listed as a severe marine pollutant
Description	CONSUMER COMMODITY, ORM-D

IATA

UN-No.	UN2735
Proper Shipping Name	AMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class	8
Packing Group	II
ERG Code	8L
Description	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (3-(TRIETHOXSILYL) PROPYLAMINE), 8, II
IMDG/IMO	
UN-No.	UN2735
Proper Shipping Name	POLYAMINES, LIQUID, CORROSIVE, N.O.S.
Hazard Class	8
Packing Group	II
EmS-No.	F-A, S-B
Marine Pollutant according to IMDG/IMO	This product contains a chemical which is listed as a severe marine pollutant
Description	UN2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-(TRIETHOXSILYL) PROPYLAMINE), 8, II

## SECTION 15: REGULATORY INFORMATION

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA: Contact supplier for inventory compliance status.

DSL/NDSL: Contact supplier for inventory compliance status.

EINECS/ELINCS: Contact supplier for inventory compliance status.

ENCS: Contact supplier for inventory compliance status.

KECL: Contact supplier for inventory compliance status.

PICCS: Contact supplier for inventory compliance status.

AICS Contact supplier for inventory compliance status.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances above threshold limits that are regulated by state right-to-know.

## **SECTION 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.