



KRETUS®

Safety Data Sheet

SECTION 1: IDENTIFICATION

Product Name: KRETUS® Urethane Polymer Concrete (UPC), Part B, RC UV AP

Recommended Use: For professional use only.

Manufacturer: Kretus, 1055 W. Struck Ave., Orange, CA 92867

Telephone: (714) 694-2061

24 Hour Emergency Telephone Number: (800) 255-3924 (CHEMTEL)

Emergency telephone numbers are to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure, or accident involving chemicals. All non-emergency questions should be directed to customer service.

Comments: To the best of our knowledge, this Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/EEC.

SECTION 2: HAZARD IDENTIFICATION

Emergency Overview: Corrosive. Causes severe burns. Severe respiratory irritant. Severe skin irritant. Severe eye irritant. May cause long-term adverse effects in the aquatic environment.

GHS Classification

Serious Eye Damage; Category 1

Skin sensitization; Category 1

Chronic aquatic toxicity; Category 3



GHS Signal Word: WARNING!

GHS Hazard Statements:

H317: May cause an allergic skin reaction.

H332: Harmful if inhaled.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335: May cause respiratory irritation.

GHS Precautionary Statements:

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

P273: Avoid release to the environment.

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

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: Immediately call a POISON CENTER or doctor/ physician.

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

Potential Health Effects:

Eye contact: Corrosive to the eyes. Severe eye irritation.

Skin contact: Corrosive to the skin. Harmful in contact with skin. Potential skin sensitizer.

Ingestion: Corrosive and may cause severe and permanent damage to mouth, throat & stomach

Inhalation: May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

Exposure Guidelines:

Target Organs - Respiratory system, Skin, Eyes.

Symptoms - Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat, headache, dizziness tiredness, nausea and vomiting.

General Information: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Storage: Keep container tightly closed and locked in a cool, well-ventilated place.

Disposal: Dispose of contents/container to an approved waste disposal plant in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Read the entire SDS for a more thorough evaluation of the hazards.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

Substances

Chemical Name	CAS No.	Concentration (% by Weight)
3-Oxazolidineethanol	CAS 145899-78-1	80-90%
Non-Hazardous	n/a	<10%

SECTION 4: FIRST-AID MEASURES

General advice: Seek medical advice or medical attention if condition persists.

Eye contact: Rinse immediately with plenty of water for at least 15 minutes.

Skin contact: Immediately remove any extraneous chemical, if possible without delay. Take off contaminated clothing and shoes immediately. Wash body off with soap and plenty of water.

Ingestion: Rinse mouth. Drink plenty of water. Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position and turn victim's head to the side. Do not induce vomiting.

Inhalation: Move to fresh air. 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.

Notes to Physician: No specific treatment. Treat symptomatically. Call the poison control center immediately if large quantities have been ingested. Corticosteroid cream has been effective and treating skin irritation in similar products with similar chemistries.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Carbon dioxide (CO₂). Foam. Dry chemical. Water Fog.

Specific hazards: May generate ammonia gas. May generate toxic nitrogen oxide gases. Do not allow run-off from firefighting to enter drains or water courses. Incomplete combustion may form carbon monoxide (CO) and nitrogen oxides (NO_x). Ammonia gas may be liberated at high temperatures. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

Special protective equipment for fire-fighters: Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Danger of Explosion: This product does not present an explosion hazard

Flammable Limits: Not Available

Explosion Limits: Not Available

Auto-Ignition: 341°C (646°F)

Flash Point: 76°C (169°F) Pensky-Martens Closed Cup

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions: Water polluting material. May be harmful to the environment if released in large quantities. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution.

Methods for Cleaning up: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment.

Storage: Store between 4 to 40°C (40 to 104°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Special Note for Exposure Control: Consult local authorities for acceptable exposure limits.

OSHA PEL (TWA): Not Determined

ACGIH TLV (TWA): Not Determined

NIOSH REL (TWA): Not Determined

Engineering measures: Work in well-ventilated area. Provide natural or explosion-proof fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

Environmental exposure controls: Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection:

Respiratory: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eyes: Splash proof safety glasses.

Skin: Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

Other protective equipment information: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl-rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Liquid; pale yellow

Odor	sweet
Odor Threshold	No Data Available
pH	Alkaline
Melting/Freezing Point	Not determined
Initial Boiling Point and Boiling Range	>235°C (>455°F)
Flash Point	76°C (169°F) Pensky-Martens Closed Cup
Evaporation Rate	Not Determined
Flammability	No Data Available
Upper/Lower Flammability or Explosive Limits	No Data Available
Auto-ignition Temperature	341°C (646°F)
Vapor Pressure	<20.68 mmHg @ 21°C (71°F)
Vapor Density	Not determined
Relative Density/Specific Gravity	No Data Available
Solubility(ies)	Nil
Partition Coefficient: n-octanol/water	No Data Available
Decomposition Temperature	No Data Available
Viscosity	No Data Available
VOC (Volatile Organic Compounds)	Nil

SECTION 10: STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions. Hazardous reactions will not occur.

Conditions to avoid: Direct source of heat, High moisture.

Materials to avoid: Strong oxidizers, water, acids and bases.

Contact with water can form highly flammable and explosive vapors.

Hazardous decomposition products: Carbon monoxide (CO). Carbon dioxide(CO₂). Ammonia. Aldehydes. Flammable hydrocarbon fragments (e.g., acetylene). Nitrogen oxides (NO_x).

Nitrogen oxide can react with water vapors to form corrosive nitric acid.

Hazardous polymerization: Under normal conditions hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral: LD50/rat: >2,000 mg/kg

Skin irritation: Rabbit: Corrosive. (Literature data)

Eye irritation: Rabbit: Risk of serious damage to eyes. (OECD Guideline 405) (Literature data)

Sensitization: Guinea pig: maximization test - sensitizing (OECD Guideline 406) (Literature data)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects:

LC50/96 hours Fish	87.5mg/L
EC50/48 hours Daphnia	>100mg/L
EbC50 Algal growth inhibition	21mg/L

LC50/3 hours Microbial growth inhibition	>1000mg/L				
No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.					
SECTION 13: DISPOSAL CONSIDERATIONS					
<p>Waste Disposal: Dispose in accordance with federal, state and local regulations.</p> <p>The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste handling site for recycling or disposal. Incineration or landfill should only be considered when recycling is not feasible. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Refer to 40 CFR § 261.7 (residues of hazardous waste in empty containers).</p> <p>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.</p>					
SECTION 14: TRANSPORT INFORMATION					
	UN Number	UN Proper Shipping Name	Transport Hazard Class(es)	Packing Group	Environmental Hazards
DOT	Not Regulated	<119gallon, Not Regulated	Not Regulated	Not Regulated	Not Regulated
IMO/IMDG	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
IATA/CAO	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code.					
SECTION 15: REGULATORY INFORMATION					
Country	Regulatory List			Notification	
USA	TSCA			Included on Inventory	
EU	EINECS			Included on Inventory	
Canada	DISL			Included on Inventory	
China	SEPA			Included on Inventory	
Japan	ENCS			Included on Inventory	
<p>OSHA: This product is considered to be a hazardous chemical under 29 CFR 1910.1200.</p> <p>SARA Section 311 AND 312 - This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD</p> <p>SARA Section 313 - This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: None</p> <p>California Safe Drinking Water & Toxic Enforcement Act (Proposition 65) - This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.</p> <p>Canadian WHMIS – Class E: Corrosive material, D2B: Toxic material causing other toxic effects.</p>					

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contain all the information required by the Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

Hazardous Material Information System (HMIS):

Scale 0-4		NFPA	HMIS
4-Severe Hazard	Health	1	1
3-Serious Hazard	Flammability	2	2
2-Moderate Hazard	Reactivity	1	1
1-Slight Hazard			
0-Minimal Hazard			

Personal Protection: Safety goggles, neoprene rubber gloves, vapor respirator

Prepared by Kretus, Inc.

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Disclaimer: The information and recommendations presented herein are accurate to the best of our knowledge. User must conduct their own tests to determine the suitability of these products for their particular purposes and usage. Because of numerous factors affecting results, KRETUS® and its affiliation makes no warranty of any kind, express or implied, including those of merchantability and fitness for purpose, other than material conforms to our applicable current specifications. KRETUS® assumes no legal responsibility for use or reliance on the information contained in this safety data sheet.