



SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SILOXA-TEK 8505

PRODUCT CODES: 8505

MANUFACTURER: KRETETEK INDUSTRIES

STREET ADDRESS: 66 RIVER ROAD

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification GHS

Signal Word: Warning

Specific target organ toxicity (repeated exposure) Category 2

Flammable liquids Category 4

Acute aquatic toxicity Category 2

Chronic aquatic toxicity Category 3



H-Code Hazard Statements

H227: Combustible liquid

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

H401: Toxic to aquatic life

H412: Harmful to aquatic life with long lasting effects

P-Code Precautionary Statements

P103: Read label before use

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273: Avoid release to the environment

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

P314: Get medical advice/attention if you feel unwell

P370+P378: In case of fire: use extinguishing powder, alcohol-resistant foam or carbon dioxide to extinguish.

P403+P235: Store in a well-ventilated place, Keep cool.

P404: Store in a closed container

P501: Dispose of content/container to waste disposal

Other hazards: This product hydrolyses under formation of ethanol (CAS 64-17-5). Ethanol is classified concerning both physical and health hazards. The hydrolysis rate and consequently the relevance for the hazard profile of the product is strongly dependent on the specific conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>
3-Aminopropyltriethoxysilane	919-30-2
Octyltriethoxy silane	35435-21-3
1,2-Ethenediol	107-21-1
Ethanol	64-17-5
Water	7732-18-5

SECTION 4: FIRST AID MEASURES

General information: Get medical attention if irritation occurs or if breathing becomes difficult. Remove contaminated clothing and shoes.

After inhalation: If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen.

After contact with the skin: For skin contact, immediately wipe away excess material. Use a waterless hand cleaner to remove as much of the remaining material as possible. Wash with soap and water.

After contact with the eyes: If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min

After swallowing: For ingestion, if conscious, give several glasses of water but do not induce vomiting. If vomiting does occur, give additional fluids. Danger of aspiration.

Advice for the physician: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable properties:

Property: Flash point Value: N/A

Property: Boiling point/boiling range: N/A

Property: Lower explosion limit (LEL) no data available

Property: Upper explosion limit (UEL) no data available

Ignition temperature Value: not applicable

Fire and Explosion Hazards: This material will flash but does not sustain combustion. Hydrolyzes on contact with moisture releasing ignitable vapors.

Recommended extinguishing media: water-mist, carbon dioxide, dry chemical or alcohol-resistant foam.

Unsuitable extinguishing media: None known

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Hazardous decomposition products: Carbon dioxide, carbon monoxide, formaldehyde, silicon dioxide, nitrogen oxides and incompletely burnt hydrocarbons.

Fire fighting procedures: Fire fighters should wear full protective clothing including a self-contained breathing apparatus. Cool endangered containers with water.

SECTION 6: RELEASE MEASURES

Precautions: Secure the area. Wear PPE. Keep unprotected persons away. If material is released indicate risk of slipping. Do not walk through spilled material.

HAZWOPER PPE Level: D

Containment: Prevent material from entering surface waters, drains or sewers and soil. Close leak if possible without risk. Contain any fluid that runs out using suitable material (e.g. earth). Retain contaminated water/extinguishing water. Dispose of in prescribed marked containers. Inform authorities if substance leaks into surface waters, sewerage or ground. Spills of material which could reach surface waters must be reported to the United States Coast Guard National Response Center's toll free phone number (800) 424-8802.

Methods for cleaning up: Take up mechanically and dispose of according to local/state/federal regulations. Do not flush away with water. For small amounts: Absorb with a neutral (non-acidic/non-basic) liquid binding material such as diatomaceous earth and dispose of according to government regulations. For large amounts: liquids may be recovered using suction devices or pumps. If flammable only air dried or properly rated electrical equipment should be used. Clean any slippery coating that remains using a

detergent/soap solutions or another biodegradable cleaner. Silicone fluids are slippery; spills are a safety hazard. Apply sand or other inert granular material to improve traction.

Further information: Exhaust vapors. Eliminate all sources of ignition. Consider explosion protection. Observe notes under section 7.

SECTION 7: HANDLING AND STORAGE

General information: Always stir well before use.

Handling

Precautions for safe handling: Ensure adequate ventilation. Must be syphoned off in situ. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Spilled substance increase risk of slipping. Keep away from incompatible substances in accordance with section 10. Observe information in section 8.

Precautions against fire and explosion: Product may release ethanol. Flammable vapors may accumulate and form explosive mixtures with air in containers, process vessels, including partial, empty and uncleaned containers and vessels, or other enclosed spaces. Keep away from sources of ignition and do not smoke. Take precautionary measures against electrostatic charging. Cool endangered containers with water.

Storage

Conditions for storage rooms and vessels: Protect against frost. Observe local/state/federal regulations.

Advice for storage of incompatible materials: Observe local/state/federal regulations.

Further information for storage:

Store in a dry, cool place, protect against sun, protect against frost, prevent freezing during cold weather conditions. Store in the original container. Store containers in a well ventilated place.

Minimum temperature allowed during storage and transportation: 0 ° C (32 ° F)

Do not allow this material to freeze.

Maximum temperature allowed during storage and transportation: 40 ° C (104 ° F)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:

Use only with adequate ventilation.

Local exhaust:

If spraying or other aerosol generating operations are performed, local exhaust ventilation designed to capture mists and sprays, such as a paint spray booth, is recommended.

Associate substances with specific control parameters such as limit values.

Maximum airborne concentrations at the workplace: 64-17-5 Ethanol Type OSHA PEL, 1900 mg/m³, 1000 ppm

Re Ethanol (CAS No 64-17-4): STEL is 1000 ppm, carcinogenicity L A3 (ACGIH)

Personal protection equipment (PPE) Respiratory protection:

Respiratory protection is not normally required. If spraying or other operations which generate an aerosol mist are conducted, respiratory protection for exposed personnel is recommended. A NIOSH approved air purifying respirator equipped with universal multi-contaminant, multi-gas/vapor cartridges and at least P-99 solid/aerosol particulate filters is recommended if overexposure to dusts, mists, or vapors could occur.

Hand protection:

Butyl rubber protective gloves, nitrile rubber protective gloves.

Eye protection:

Safety glasses with side shields or chemical safety goggles. Where there is risk of splashing: tight fitting chemical safety goggles.

Additional protective clothing or equipment: Additional skin protection, such as SARANEX coated Tyvek apron, over-sleeves, lab coat, coveralls, or protective suit should be worn if splashing could occur. Provide eye bath and safety shower.

General hygiene and protection measures: Do not eat, drink or smoke when handling. Follow standard industrial hygiene practices when using this material. Wash thoroughly after handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state / form: fluid-emulsion

Colour: milky white

Odour: Faint

Safety parameters

Boiling point / boiling range Value: not determined

Flash point Value: not determined
Ignition temperature: not applicable
Lower explosion limit (LEL): not applicable
Upper explosion limit (UEL): not applicable
Vapour pressure: not determined
Water solubility / miscibility: completely miscible
Explosion limits: explosion limits for releases ethanol: 3.5-15% (V).

SECTION 10: STABILITY AND REACTIVITY

General information: If stored and handled in accordance with standard industrial practices no hazardous reactions are known.
Conditions to avoid: Although this product is not expected to react with commonly used materials of construction and process equipment, it is advised that any rubber or plastic items such as hoses and gaskets be tested prior to large scale processing to ensure there is no degradation of performance or durability. Keep away from incompatible substances. Avoid heat, open flames, and other sources of ignition.

Materials to avoid: strong oxidizing agents, strong acids, alkalis. Reacts with basic substances and acids. Reaction causes the formation of: ethanol.

Hazardous decomposition products: Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 ° C (302 ° F) through oxidation. By hydrolysis: ethanol. The following applies for the silicone content of the substances. Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150°C (302°F) through oxidation.

Further information: Hazardous polymerization cannot occur.

SECTION 11: TOXICOLOGICAL INFORMATION

General information: Data derived for the product as a whole are of higher priority than data for single ingredients.

Acute toxicity Assessment: For similar products no indication for a specific hazard due to aerosol inhalation were identified in animal tests. However, inhalation of respirable aerosol should be avoided.

Route of exposure: oral, Result/Effect: LD50: > 200 mg/kg The assessment is made under consideration of relevant data on ingredients.

Species: rat, Source: conclusion by analogy.

Skin corrosion/irritation Assessment: For this endpoint no toxicological test data is available for the whole product.

Serious eye damage / eye irritation Assessment: For this endpoint no toxicological test data is available for the whole product.

Respiratory or skin sensitization Assessment: For this endpoint no toxicological test data is available for the whole product.

Germ cell mutagenicity Assessment: For this endpoint no toxicological test data is available for the whole product.

Carcinogenicity Assessment: For this endpoint no toxicological test data is available for the whole product.

Reproductive toxicity Assessment: For this endpoint no toxicological test data is available for the whole product.

Specific target organ toxicity (single exposure) Assessment: For this endpoint no toxicological test data is available for the whole product.

Aspiration hazard Assessment: In case an aspiration hazard is based on ingredients, this can be seen from the classification and labeling of the whole product.

Further toxicological information: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Other information: Hydrolysis product/impurity: Ethanol (64-17-5) is readily absorbed at all exposure routes. Ethanol may cause irritation of eyes and mucosa, trigger dysfunction of the central nervous system and cause nausea as well as dizziness. Chronic exposure to high amounts of ethanol may cause damage to liver and central nervous system.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Assessment: According to current knowledge adverse effects on water purification plants are not expected.

Persistence and degradability Assessment: Silanol and/or siloxanol compounds: biologically not degradable Contact with water liberates ethanol and silanol-and/or siloxanol-compounds. Silicone content: biologically not degradable. Elimination by absorption to activated sludge – The hydrolysis product (Ethanol) is readily biologically degradable.

Bioaccumulative potential Assessment: Not expected to occur.

Mobility in soil Assessment: No data known

Other adverse effects: none known

SECTION 13: WASTE DISPOSAL

Product disposal recommendation: Recommendation: Recommendation:

Material that cannot be used or chemically reprocessed or recycled should be disposed of at an approved facility in accordance with any applicable governmental regulations. State and local regulations may be more stringent than Federal regulations.

Packaging disposal: Recommendation: Uncleaned packaging should be treated with the same precautions as the material. Uncleaned containers should not be reused to hold another material due to the potential for reaction between residual product and incompatible materials. After emptying contaminated containers may be cleansed and recycled. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Uncleaned packaging should be treated with the same precautions as the material.

SECTION 14: TRANSPORTATION

DOT:

Valuation: Not regulated for transport

Other information: This material has been tested and does not sustain combustion. Not DOT flammable liquid class 3 diamond label, or bulk combustible liquid placards required. Protect from freezing, when exposed to cold temperatures approaching 0 ° C (32 ° F) or below

IMDG-Code: Not regulated for transport

ICAO-TI/IAT-DGR: Not regulated for transport

SECTION 15: REGULATORY INFORMATION

U.S. Federal regulations

TSCA inventory status and TSCA information:

This material or its components are listed on or are in compliance with the requirements of the TSCA Chemical Substance Inventory.

TSCA 12(b) Export Notification:

Vendor Trade Secret Fluorochemical Acrylate Polymer

CERCLA Regulated Chemicals:

1,2-Ethanedioil

SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

Delayed (chronic) health hazard.

SARA 313 Chemicals:

1,2-Ethanedioil

HAPS (Hazardous Air Pollutants)

108-88-3 Toluene ≤ 0.0233 , 67-56-1 Methanol ≤ 0.0020

U.S. State regulations

California Proposition 65 Carcinogens:

This material does not contain any chemicals known to the state of California to cause cancer.

California Proposition 65 Reproductive Toxins:

67-56-1 Methanol

107-21-1 1,2-Ethanedioil

109-88-3 Toluene

Massachusetts Substance List:

107-21-1 1,2-Ethanedioil

New Jersey Right-to-Know Hazardous Substance List:

107-21-1 1,2-Ethanedioil

Pennsylvania Right-to-Know Hazardous Substance List:

107-21-1

1,2-Ethanediol

Canadian regulations

This product has been classified in accordance with the Hazard criteria of the CPR and the SDS contains all the information required by the CPR.

WHMIS Hazard Classes: D2A

DSL Status: This material or its components are listed on the Canadian Domestic Substances List.

SECTION 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.