



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

CITY, STATE, ZIP: HUDSON, NH 03051

INFORMATION PHONE: 855-573-8383

EMERGENCY PHONE: Chemtrec 800-424-9300

FAX PHONE: 855-573-8383

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification GHS

Signal Word: Danger

Chronic aquatic toxicity: Category 3

Acute aquatic toxicity: Category 2

Acute toxicity (inhalation): Category 1

Specific target organ systemic toxicity – repeated exposure: Category 2 (Liver)

Pictograms:



H-Code Hazard Statements

H401: Toxic to aquatic life

H412: Harmful to aquatic life with long lasting effects

H330: Fatal if inhaled

H373: May cause damage to organs (liver) through prolonged repeated exposure.

P-Code Precautionary Statements

P260: Do not breathe mist or vapors

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

P273: Avoid release to the environment

P284: Wear respiratory protection

Reponse:

P304+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

Storage:

P405: Store locked up

Disposal:

P501: Dispose of contents/container to waste disposal.

Other hazards:

The product hydrolyses under formation of ethanol (CAS-Nr. 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. Inhalation of decomposition products in high concentration may cause shortness of breath (lung edema).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>
3-Aminopropyltriethoxysilane	919-30-2	none	none	none
Octyltriethoxy silane	35435-21-3			
N,N,N-Trimethyl-1-hexadecanaminium chloride	112-02-07			
Ethanol	64-17-5			
Partially fluorinated alcohol, reaction products with phosphorus oxide, ammonium salts				
Water	7732-18-5			

SECTION 4: FIRST AID MEASURES

General information: Get medical attention if irritation occurs or if breathing becomes difficult. In the case of accident or if you feel unwell, seek medical advice immediately.

When symptoms persist or in all cases of doubt seek medical advice.

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

Get medical attention immediately.

After contact with the skin: For skin contact, immediately wipe away excess material. Wash with soap and water. Get medical attention if symptoms occur.

After contact with the eyes: If contact with eyes, immediately hold eyelids apart and flush with plenty of water for at least 15 min. Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

After swallowing: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Advice for the physician: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable properties:

Property: Flash point Value: not determinable (Substance exhibits no flashpoint until (ISO 3679) boiling commences.)

Sustained combustibility: not applicable

Boiling point/boiling range: 100°C (212°F)

Lower explosion limit (LEL): no data available

Upper explosion limit (UEL): no data available

Ignition temperature: 395°C (743°F)

NFPA Hazard Class (comb/flam liquid): III B

Fire and explosion hazards: This material does not present any unusual fire or explosion hazards.

Recommended extinguishing media: Use extinguishing measure appropriate to the source of fire, water-mist, carbon dioxide, dry chemical or foam-type extinguishing media. Water spray Alcohol-resistant foam Carbon dioxide (CO₂) Dry chemical.

Unsuitable extinguishing media: Sharp water jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Hazardous combustion product: silicon dioxide, formaldehyde, carbon dioxide, carbon monoxide 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. Use personal protective equipment.

Hazardous combustion products: Hydrogen fluoride, carbonyl fluoride, potentially toxic fluorinated compounds, aerosolized particulates, Carbon oxides

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: RELEASE MEASURES

Precautions: Secure the area. Wear personal protection equipment (see section 8). Keep unprotected persons away. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. If material is released indicate risk of slipping. Do not walk through spilled material. Evacuate personnel to safe areas. Only trained personnel should re-enter the area. Follow safe handling advice and personal protective equipment recommendations.

HAZWOPER PPE Level: D

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

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 driven or properly rated electrical equipment should be used. Clean any slippery coating that remains using a detergent / soap solution 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 vapours. 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.

Local/Total ventilation: Use with local exhaust ventilation.

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 increases risk of slipping. Keep away from incompatible substances in accordance with section 10. Observe information in section 8. Do not breathe vapors or spray mist. Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.

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: Observe local/state/federal regulation. Advice for storage of incompatible materials: Observe local/state/federal regulation. Keep in properly labeled containers. Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations.

Further information for storage:

Store in a dry and cool place. Protect against sun. Protect against frost. Store container 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),

Materials to avoid: Do not store with the following product types: Strong oxidizing agents, Flammable liquids, Flammable solids, Pyrophoric liquids, Pyrophoric solids, Self-heating substances and mixtures, Substances and mixtures which in contact with water emit flammable gases, Explosives Gases

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Hazardous components without workplace control parameters: Partially fluorinated alcohol, reaction products with phosphorus oxide (P2O5), ammonium salts

Engineering controls

Ventilation: Use with adequate ventilation.

Processing may form hazardous compounds (see section 10).

Minimize workplace exposure concentrations. Use with local exhaust 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: CAS: 64-17-5, Ethanol OSHA PEL 1,00 mg/m³, 1000 ppm. Re Ethanol: STEL is 1000 ppm; carcinogenicity: A3 (ACGIH)

Personal protection equipment (PPE)

Respiratory protection:

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection:

Any liquid-tight rubber or vinyl chemical resistant gloves.

Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection:

Safety glasses with side shields.

Other protective clothing or equipment: Additional protective clothing or equipment is not normally required. Provide eye bath and safety shower. Skin should be washed after contact.

General hygiene and protection measures:

Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use. Follow standard industrial hygiene practices when using this material.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state / form: liquid

Colour: white

Odour: faint

Safety parameters

Melting point/melting range: No data available

Boiling point / boiling range Value: No data available

Flash point Value: No data available

Sustained combustibility: not applicable

Ignition temperature: No data available

Lower explosion limit (LEL): no data available

Upper explosion limit (UEL): no data available

Vapour pressure: No data available

Density: No data available

Water solubility / miscibility: No data available

pH-Value: approx. No data available

Viscosity(kinematic): No data available

Further information: Explosion limits: No data available

Odour limit: No data available.

SECTION 10: STABILITY AND REACTIVITY

General information: If stored and handled in accordance with standard industrial practices no hazardous reactions are known. Not classified as a reactivity hazard.

Possibility of hazardous reactions: Can react with strong oxidizing agents.
Hazardous decomposition products will be formed at elevated temperatures.
Conditions to avoid: Heat, open flames, and other sources of ignition.
Materials to avoid: Reacts with: basic substances and acids . Reaction causes the formation of: ethanol
Hazardous decomposition products: By hydrolysis: ethanol . The following applies for the silicone content of the substance:
Measurements have shown the formation of small amounts of formaldehyde at temperatures above about 150 ° C (302 ° F) through oxidation.
Incompatible materials: Oxidizing agents
Further information:
Hazardous decomposition products
Thermal decomposition : Hydrofluoric acid Carbonyl difluoride
Carbon dioxide Carbon monoxide

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Assessment: Fatal if inhaled
Product details: Acute oral toxicity
Acute inhalation toxicity : cute dermal toxicity: Ingredients: : LD50 (Rat): > 5,000 mg/kg : Acute toxicity estimate (Rat): 0.005 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist Method: Expert judgment Remarks: Based on data from similar materials : LD50 (Rat): > 5,000 mg/kg

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

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Assessment: For this endpoint no toxicological test data is available for the whole product.
Persistence and degradability Assessment: For this endpoint no ecological test data is available for the whole product.
Bioaccumulative potential Assessment: For this endpoint no ecological test data is available for the whole product.
Mobility in soil Assessment: For this endpoint no ecological test data is available for the whole product.
Silicone content: For this endpoint no ecological test data is available for the whole product.

SECTION 13: WASTE DISPOSAL

Product disposal recommendation: Recommendation: Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State and local regulations at an approval facility. Depending on the regulations, waste treatment methods may include e.g. landfill or incineration.
Packaging disposal: Recommendation: Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local/state/federal regulations. Unclean packaging should be treated with the same precautions as the material.

SECTION 14: TRANSPORTATION

DOT: Valuation: Not regulated for transport
Other information: Protect from freezing, when exposed to cold temperatures approaching 0 ° C (32 ° F) or below.
IMDG: Not regulated for transport
ICAO-TI/IATA-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:

This material does not contain any TSCA 12(b) regulated chemicals.

CERCLA Regulated Chemicals:

Sodium hydroxide 1310-73-2

SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

This product does not present any SARA 311/312 hazards.

SARA 313 Chemicals:

This material does not contain any SARA 313 chemicals above de minimus levels.

HAPS (Hazardous Air Pollutants: CAS-No 67056-1 Methanol, upper limit wt. %: <=0.0029

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

Massachusetts Substance List:

This material contains no listed components.

New Jersey Right-to-Know Hazardous Substance List:

This material contains no listed components.

Pennsylvania Right-to-Know Hazardous Substance List:

Partially fluorinated alcohol, reaction products with phosphorus oxide (P2O5), ammonium salts

Additional regulatory information:

Partially fluorinated alcohol, reaction Trade secret products with phosphorus oxide

(P2O5), ammonium salts. This material contains one or more substances which are subject to a TSCA Section 5 Consent Order or Significant New Use Rule (SNUR). This material contains one or more substances which requires export notification under TSCA Section 12(b) and 40 CFR Part 707 Subpart D: P-09-0245. This material shall not be distributed to consumers for use in spray applications except in water-based coatings where the maximum concentration of the PMN substance (P-09-245) does not exceed 0.1 wt percent.

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.