



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Identification of the substance or preparation:

Commercial product name: **SILOXA-TEK 8500**

1.2 Company/undertaking identification:

Manufacturer/distributor:

KreteTek Industries
1000 N West St
Wilmington, DE 19801
USA
Tel (855) 573-8383, Fax (855) 573-8383
Hours of operation:
Monday - Friday, 8 am to 5 pm (eastern standard time)
Corporate website: www.ghostshield.com

Emergency telephone no.:

(800) 424-9300 (CHEMTREC. USA)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (GHS):

Class	Category
Hazardous to the aquatic environment	acute, category 2
Flammable liquids	Category 4
Hazardous to the aquatic environment	chronic, category 3

2.2 Label elements

Labelling (GHS):

Signal Word: Warning

H-Code	Hazard Statements
H227	Combustible liquid.
H401	Toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
P-Code	Precautionary Statements
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.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to waste disposal.

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 34

2.3 Other hazards

Inhalation of aerosol spray may damage health. Product hydrolyses under formation of methanol (CAS no. 67-56-1). Methanol

toxic by inhalation, in contact with skin and if swallowed. Methanol causes damage to organs. Methanol is highly flammable. Product hydrolyses, producing ethanol (CAS no. 64-17-5). Ethanol is highly flammable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterization (preparation)

Chemical characteristics
Alkoxy silanes + siloxane + water

3.2 Information on ingredients:

Type	CAS No.	Substance	Content [wt. %]		Note
			Lower	Upper	
INHA	919-30-2	3-Aminopropyltriethoxysilane		<0.5	

Type: HYD - by-product upon hydrolysis, INHA - ingredient, NEBE - by-product, MONO - residual monomer, VERU - impurity, VUL - by-product upon vulcanization. *** **Note:** C1 - IARC carcinogen, C2 - NTP carcinogen, C3 - OSHA carcinogen, NH - non-hazardous, R - reproductive toxin.

Substances listed in the Subsections "HAPS" and "California Proposition 65 Carcinogens / Reproductive Toxins" that are not listed in this section are only present at quantities below 0.1% for California Proposition 65 listed toxins or below 1% for non-carcinogenic HAPS or they are inextricably bound in the product.

4. FIRST-AID MEASURES

4.1 General information:

Get medical attention if irritation occurs or if breathing becomes difficult.

4.2 After inhalation

If inhaled, remove to fresh air.

4.3 After contact with the skin

For skin contact, immediately wipe away excess material. Wash with soap and water.

4.4 After contact with the eyes

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

4.5 After swallowing

If swallowed, rinse mouth with water. Induce drinking plenty of water in small portions.

4.6 Advice for the physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Flammable properties:

Property:	Value:	Method:
point.....	70 ° C (158 ° F)	Flash
combustibility.....	not applicable	(EN 22719) Sustained
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).....	IIIA	

5.2 Fire and explosion hazards:

This material will flash but does not sustain combustion. As a result of gradual hydrolysis, flammable by-products are released during storage which can cause a lowering of the flash point of the product over the course of its shelf life. As a result of hydrolysis flammable vapors may accumulate in the container head space. This material does not present any unusual fire or explosion hazard

5.3 Recommended extinguishing media:

Use extinguishing measures appropriate to the source of fire. water-mist , carbon dioxide, dry chemical or foam-type extinguishing media .

5.4 Unsuitable extinguishing media:

sharp water jet .

5.5 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Hazardous combustion products: silicon dioxide , formaldehyde , carbon dioxide , carbon monoxide and incompletely burnt hydrocarbons .

5.6 Fire fighting procedures:

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

6. ACCIDENTAL RELEASE MEASURES

6.1 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.

HAZWOPER PPE Level: D

6.2 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.

6.3 Methods for cleaning up

Do not flush away with water. For small amounts: Absorb with a liquid binding material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean any slippery coating that remains using a detergent / soap solution or another biodegradable cleaner. Exhaust vapours.

6.4 Further information:

Eliminate all sources of ignition.

7. HANDLING AND STORAGE

7.1 General information:

Always stir well before use

7.2 Handling

Precautions for safe handling:

Avoid contact with eyes, skin and clothing. Avoid formation of aerosols. In case of aerosol formation special protective measures are required (exhausting by suction, respiratory protection). Ensure adequate ventilation. Keep away from incompatible substances in accordance with section 10. Spilled substance increases risk of slipping.

Precautions against fire and explosion:

Product can separate ethanol and methanol. 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.

7.3 Storage

Conditions for storage rooms and vessels:

Observe local/state/federal regulation

Advice for storage of incompatible materials:

Observe local/state/federal regulations

Further information for storage:

Protect against sun. Protect against frost. Keep container tightly closed and store in a cool, 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)

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Engineering controls

Ventilation:

Use 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.

8.2 Associate substances with specific control parameters such as limit values

Maximum airborne concentrations at the workplace:

CAS No.	Material	Type	mg/m ³	ppm	Dust fract.
64-17-5	Ethanol	OSHA PEL	1,900.0	1,000.0	

Re Ethanol (CAS no. 64-17-5): STEL is 1000 ppm; carcinogenicity: A3 (ACGIH). none known

8.3 Personal protection equipment (PPE)

Respiratory protection:

Respiratory protection is not normally required.

Hand protection:

Any liquid-tight rubber or vinyl gloves.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Physical state / form	liquid
Colour	white
Odour	slight

9.2 Safety parameters

Property:	Value:	Method:
Melting point / melting range	Boiling point / boiling range	(EN 22719)
.....	Flash point.....	
.....	Sustained combustion.....	
.....	Ignition temperature	
.....	Lower explosion limit (LEL)	
.....	Upper explosion limit (UEL).....	
.....	Vapour pressure.....	
.....	Density	
.....	Water solubility / miscibility.....	
.....	pH-Value	
.....	Viscosity	
(dynamic)		

9.3 Further information

Re 9.2 Explosion Limits: Explosion limits for released methanol: 5.5 - 44%(V). Explosion limits for released ethanol: 3.5 - 15%(V).

10. STABILITY AND REACTIVITY

10.1 General information:

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

10.2 Conditions to avoid

Heat, open flames, and other sources of ignition.

10.3 Materials to avoid

Reacts with: basic substances and acids . Reaction causes the formation of: methanol and ethanol

10.4 Hazardous decomposition products

By hydrolysis: methanol and 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.

10.5 Further information:

Hazardous polymerization cannot occur.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity

Product details:

Route of exposure	Result/Effect	Species/Test system	Source
oral	LD ₅₀ : > 2000 mg/kg The assessment is made under consideration of relevant data on ingredients.	rat	Conclusion by analogy

Acute toxicity estimate (ATE):

ATE_{mix} (oral): > 2000 mg/kg

11.1.2 Skin corrosion/irritation

Assessment:

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

11.1.3 Serious eye damage / eye irritation

Assessment:

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

11.1.4 Respiratory or skin sensitization

Assessment:

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

11.1.5 Germ cell mutagenicity

Assessment:

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

11.1.6 Carcinogenicity

Assessment:

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

11.1.7 Reproductive toxicity

Assessment:

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

11.1.8 Specific target organ toxicity (single exposure)

Assessment:

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

11.1.9 Specific target organ toxicity (repeated exposure)

Assessment:

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

11.1.10 Aspiration hazard

Assessment:

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

11.1.11 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: According to literature, ethanol (67-17-5) irritates the mucous membranes, slightly irritates the skin, degreases the skin, is narcotic and may cause liver damage.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Assessment:

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

12.2 Persistence and degradability

Assessment:

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

12.3 Bioaccumulative potential

Assessment:

Bioaccumulation is not expected to occur.

12.4 Mobility in soil

Assessment:

Silicone content: Absorbed by floating particles. Separation by sedimentation.

12.5 Other adverse effects

none known

13. DISPOSAL CONSIDERATIONS

13.1 Product disposal

Recommendation:

Material that cannot be used, reprocessed or recycled should be disposed of in accordance with Federal, State, and local regulations at an approved facility. Depending on the regulations, waste treatment methods may include, e.g., landfill

13.2 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.

14. TRANSPORT INFORMATION

14.1 US DOT & CANADA TDG SURFACE

Valuation: Not regulated for transport

Other Information: Protect from freezing, when exposed to cold temperatures approaching 0 ° C (32 ° F) or below.
This material has been tested and does not sustain combustion. No DOT flammable liquid class 3 diamond label required!

14.2 Transport by sea IMDG-Code

Valuation: Not regulated for transport

14.3 Air transport ICAO-TI/IATA-DGR

Valuation: Not regulated for transport

15. REGULATORY INFORMATION

15.1 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:

This material does not contain any CERCLA regulated chemicals.

SARA 302 EHS Chemicals:

This material does not contain any SARA extremely hazardous substances.

SARA 311/312 Hazard Class:

Fire hazard.

SARA 313 Chemicals:

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

HAPS (Hazardous Air Pollutants):

CAS No.	Chemical	Upper limit wt. %
67-56-1	Methanol	<=0.0029

15.2 U.S. State regulations

California Proposition 65 Carcinogens: California

Proposition 65 Reproductive Toxins:

67-56-1	Methanol
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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:

This material contains no listed components

15.3 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:

B3

DSL Status:

This product contains one or more substance(s) that are subject to annual import quantity limit restrictions.

Non-DSL Chemicals:

This material does not contain any non-DSL chemicals.

15.4 Details of international registration status

Relevant information about individual substance inventories, where available, is given below. South

Korea (Republic of Korea) : **ECL** (Existing Chemicals List):

This product is listed in, or complies with, the substance inventory.

Japan : **ENCS** (Handbook of Existing and New Chemical Substances): This product is listed in, or complies with, the substance inventory.

Australia : **AICS** (Australian Inventory of Chemical Substances):

This product is listed in, or complies with, the substance inventory.

People's Republic of China : **IECSC** (Inventory of Existing Chemical Substances in China):

This product is listed in, or complies with, the substance inventory.

Canada : **DSL** (Domestic Substance List):

This product is listed in, or complies with, the substance inventory.

Philippines..... : **PICCS** (Philippine Inventory of Chemicals and Chemical Substances):

This product is listed in, or complies with, the substance inventory. United

States of America (USA)..... : **TSCA** (Toxic Substance Control Act Chemical Substance Inventory):

This product is listed in, or complies with, the substance inventory.

European Economic Area (EEA) : **REACH** (Regulation (EC) No 1907/2006):

General note: the registration obligations for substances imported into the EEA or manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by the said supplier. The registration obligations for substances imported into the EEA by customers or other downstream users must be fulfilled by the latter.

16. OTHER INFORMATION

16.1 Additional information:

This Safety Data Sheet (SDS) meets the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified according to the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR. This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee expressed or implied, is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license under valid patents. This SDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

Vertical lines in the left-hand margin indicate changes compared with the previous version.

16.2 Glossary of Terms:

ACGIH - American Conference of Governmental Industrial Hygienists

DOT - Department of Transportation

hPa - Hectopascals

mPa*s - Milli Pascal-Seconds

OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit

ppm - Parts per Million

SARA - Superfund Amendments and Reauthorization Act

STEL - Short Term Exposure Limit

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

WHMIS - Canadian Workplace Hazardous Materials Identification System

Flash point determination methods	ASTM	Common name
D56.....	ASTM D92, DIN	Tagliabue (Tag) closed cup
51376, ISO 2592	ASTM D93, DIN 51758, ISO	Cleveland open cup
2719	ASTM D3278, DIN 55680, ISO 3679	Pensky-Martens closed cup
.....	DIN	51755 Setaflash or Rapid closed cup
.....		Abel-Pensky closed cup

16.3 Conversion table:

Pressure:.....: 1 hPa * 0.75 = 1 mm Hg = 1 torr; 1 bar = 1000 hPa

Viscosity:.....: 1 mPa*s = 1 centipoise (cP)