



## SAFETY DATA SHEET

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** LITHI-TEK LS 9500

**PRODUCT CODES:** 9500

**MANUFACTURER:** KRETETEK INDUSTRIES

**STREET ADDRESS:** 1000 N WEST ST

**CITY, STATE, ZIP:** WILMINGTON, DE 19801

**INFORMATION PHONE:** 855-573-8383

**EMERGENCY PHONE:** Chemtrec 800-424-9300

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**DATE REVISED:** 1/1/16

**Chemical Name or Class:** Lithium silicate/siliconate

### SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Serious eye irritation category 1, Skin corrosion/irritation category 1C

Label Elements: Corrosion

GHS Label Elements and Precautionary Statements:

Hazard Statements:

Danger: Causes severe skin burns and eye damage

Danger: Causes serious eye damage

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P260 Do not breathe dust/fume/gas/mist/vapours/spray P264 Wash hands thoroughly after handling.

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

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P363 Wash contaminated clothing before reuse.

P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P310 Immediately call a POISON CENTER or doctor/physician.

P321 If skin irritation or burns develop, Call a doctor/physician .

P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

Hmis Hazard Classification

Health: 1      Flammibility: 1      Reactivity: 0      Personal Protecive Equipment: B

Potential health effects

Eyes:

Direct contact can burn eyes and cause possible permanent injury.

Skin:

Contact with skin can cause burns or irritation.

Ingestion:

Can cause burns to the mouth, throat or digestive system if swallowed.

Inhalation:

Mist may seriously irritate nose, throat, and lungs depending on concentration and duration of exposure.

Health hazards (acute and chronic):

Contact can cause burns to eyes or skin. Contact can cause irritation.

Medical conditions generally aggravated by exposure:

None known

Carcinogenicity

OSHA: no                      NTP: no                      IARC: no

No components of this product are listed as carcinogens.

### 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>	<u>WEIGHT %</u>
Lithium silicate	12627-14-4	none	none	none	10-25
Sodium methyl silicate	16589-43-8	none	none	none	10-25
Water	7732-18-5	none	none	none	50-60
Methanol	67-56-1	200ppm	200ppm	250ppm	<0.1%

SECTION 3 NOTES: \*No toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

### SECTION 4: FIRST AID MEASURES

Eyes:

Immediately flush eyes with water for at least 15 minutes and seek medical attention.

Skin:

Flush skin immediately with water for at least 15 minutes and seek medical attention if necessary.

Ingestion:

Do not induce vomiting and seek medical attention.

Inhalation:

Remove to fresh air area and receive medical attention if ill effects persist.

Notes to physicians or first aid providers:

In all cases of exposure, treat according to person's condition and specific effects of exposure.

### SECTION 5: FIRE-FIGHTING MEASURES

Flammable limits in air,                      upper: n/a  
(% by volume)                                  lower: n/a

Flash point: >212 +f

Method used:

Seta flash

Extinguishing media:

Foam, alcohol foam, co2, dry chemical, water fog

Special fire fighting procedures:

Self contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals.

Unusual fire and explosion hazards:

None known

### SECTION 6: RELEASE MEASURES

Steps to be taken in case material is released or spilled:

wear the appropriate safety equipment. Dyke material and take up remainder with absorbant to salvage container.

## SECTION 7: HANDLING AND STORAGE

Precautions to be taken in handling and storage:

Wear suitable protective clothing to avoid contact with material. Wear neoprene or rubber gloves. Wear splash goggles with side shields. Store away from high heat, contact with flames and/or sparks. Keep material in sealed containers that are properly labeled. Do not allow material to freeze.

Other precautions:

Use general safety precautions when using this material. Wash hands before using toilet facilities. Remove contaminated clothing promptly.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection:

Avoid the inhalation of any mists that may be generated in the application process.

Ventilation :

Provide for adequate general ventilation.

Protective gloves:

Impervious gloves, neoprene or rubber.

Eye protection:

Splash proof goggles or safety glasses with side shields.

Other protective clothing or equipment:

Provide necessary clothing and safety equipment to prevent contact with material.

Work hygienic practices:

Typical hygienic practices should be employed to prevent exposure and contact to material.

See section three for occupational exposure limit values.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor: transparent white or colorless liquid with slight odor

Boiling point or range: ° f - 212

Vapor density (air = 1): n/a

Specific gravity (h<sub>2</sub>o = 1): 1.0

Evaporation rate: n/a

Solubility in water: not determined

Odor Threshold: N/A

pH: <10

Melting point/freezing point: N/A

Vapor Pressure: N/A

Auto Ignition Temperature: N/A

Partition Coefficient: n-octanol/water: N/A

Decomposition Temperature: N/A

## SECTION 10: STABILITY AND REACTIVITY

Stability:

Stable

Conditions to avoid (stability):

None known

Incompatibility (material to avoid):

Avoid contact with oxidizing materials.

Hazardous decomposition or by-products:

Carbon oxides and traces of incomplete carbon compounds, silicon dioxide (high heat), metal oxides and formaldehyde

Hazardous polymerization:

Will not occur

## SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component LITHIUM SILICATE CAS# 12627-14-4: Acute Data: When tested for primary irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin. Subchronic Data: Repeated ingestion or ingestion of large doses of soluble lithium compounds is reported to cause temporary mental function impairment. Special Studies: Repeated ingestion or ingestion of large doses of soluble lithium compounds during pregnancy is reported to cause fetal abnormalities. Frequent ingestion over extended periods of time of gram quantities of silicates is associated with the formation kidney stones and other siliceous urinary calculi in humans. Lithium silicate is not listed by IARC, NTP or OSHA as a carcinogen.

Ingredient METHYLSODIUM SILICONATE:

Acute toxicity Not classified based on available information.

Skin corrosion/irritation: Species: Rabbit Result: Corrosive after 3 minutes or less of exposure Remarks: Based on data from similar materials.

Serious eye damage/eye irritation: Species: Rabbit Result: Irreversible effects on the eye Remarks: Based on test data.

Respiratory or skin sensitization Skin sensitization: Not classified based on available information. Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity Not classified based on available information.

Carcinogenicity Not classified based on available information.

Reproductive toxicity Not classified based on available information.

STOT-single exposure Not classified based on available information.

STOT-repeated exposure Not classified based on available information.

Ingredient Methanol

Acute oral toxicity : Acute toxicity estimate (Humans): 300 mg/kg Method: Expert judgment Acute inhalation toxicity : Acute toxicity estimate (Humans): 3 mg/l Test atmosphere: vapor Method: Expert judgment. Acute dermal toxicity : Acute toxicity estimate (Humans): 300 mg/kg Method: Expert judgment.

Skin corrosion/irritation: Species: Rabbit Result: No skin irritation.

Serious eye damage/eye irritation: Species: Rabbit Result: No eye irritation.

Respiratory or skin sensitization: Test Type: Maximization Test (GPMT) Routes of exposure: Skin contact Species: Guinea pig Result: negative.

Germ cell mutagenicity: Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative : Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Test species: Mouse Application Route: Intraperitoneal injection Result: negative.

Carcinogenicity Not classified based on available information. Species: Mouse Application Route: inhalation (vapor) Exposure time: 18 Months Method: OECD Test Guideline 453 Result: negative IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity Not classified based on available information. Effects on fertility : Test Type: Fertility/early embryonic development Species: Mouse Application Route: Ingestion Result: negative Effects on fetal development : Test Type: Embryo-fetal development Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 414 Result: positive Remarks: The effects were seen only at maternally toxic doses.

STOT-single exposure Not classified based on available information. Target Organs: Eyes, Central nervous system Assessment: Causes damage to organs.

STOT-repeated exposure Not classified based on available information.

Repeated dose toxicity: Species: Rat NOAEL: 1.06 mg/l Application Route: inhalation (vapor) Exposure time: 90 d.

## SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component LITHIUM SILICATE CAS# 12627-14-4: Eco toxicity: This product has not been tested for ecotoxicity potential. Environmental Fate: The high pH of this material may be acutely harmful to aquatic life. It does not contribute to BOD. Physical/Chemical: Sinks and mixes with water. Only water will evaporate from this material.

Ingredient SODIUM METHY SILICONATE: no available data

Ingredient Methanol

Ecotoxicity: Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 15,400 mg/l Exposure time: 96 h Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 48 h Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 22,000 mg/l Exposure time: 96 h Method: OPPTS 850.5400 Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): 15,800 mg/l Exposure time: 200 h Toxicity to bacteria : EC50: 20,000 mg/l Exposure time: 15 h.  
Persistence and degradability: Biodegradability : Result: Readily biodegradable. Biodegradation: 95 % Exposure time: 20 d.  
Bioaccumulative potential: Bioaccumulation : Species: Leuciscus idus (Golden orfe) Bioconcentration factor (BCF): < 10 Partition coefficient: noctanol/water : log Pow: -0.77.

## **SECTION 13: WASTE DISPOSAL**

Waste disposal method:

Dispose of the material in a waste disposal site in accordance with local, state, and federal laws.

## **SECTION 14: TRANSPORTATION**

DOT: Not Regulated

IMO/IMDG: Not Regulated

## **SECTION 15: REGULATORY INFORMATION**

No data for the product itself.

Component data:

Component LITHIUM SILICATE CAS# 12627-14-4: CERCLA: No CERCLA Reportable Quantity has been established for this material.

SARA TITLE III: Not an Extremely Hazardous Substance under § 302. Not a Toxic Chemical under § 313. Hazard Categories under § 311/312: Acute TSCA: All ingredients of this material are listed on the TSCA inventory. Component is on the Canada DSL list

. Ingredients Sodium Methyl Silicate, Water and Methanol:

SARA 304 Extremely Hazardous Substances Reportable Quantity This material does not contain any components with a section 304 EHS RQ. SARA 311/312 Hazards : Acute Health Hazard SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313. US State Regulations Pennsylvania Right To Know and New Jersey Right to Know: Water CAS# 7732-18-5 50, Sodium methyl silicate CAS# 589-43-8, Methanol CAS# 0.1-1%. California Prop 65 WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm. Methanol 67-56-1. The ingredients of this product are reported in the following inventories: KECI : All ingredients listed, exempt or notified. REACH : All ingredients (pre-)registered or exempt. TSCA : All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances. AICS : All ingredients listed or exempt. IECSC : All ingredients listed or exempt. PICCS : All ingredients listed or exempt. DSL : All chemical substances in this product comply with the CEPA 1999 and NSNR and are on or exempt from listing on the Canadian Domestic Substances List (DSL). ENCS/ISHL : All components are listed on ENCS/ISHL or exempted from inventory listing. NZIoC : All ingredients listed or exempt. Inventories AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), NECSI (Taiwan), TSCA (USA).

## **SECTION 16: OTHER INFORMATION**

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