



Safety Data Sheet

According to 29 CFR 1910.1200 (OSHA HCS)

SDS No. 272

Review date: May 4, 2020

1 Identification of substance and company

Product name: **Lithium Orthosilicate**
Product code: 13373, 14540
Relevant use and restrictions on use: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Classification of the substance or mixture:

Pictogram(s):



Signal word:

Warning

GHS hazard classification:

Skin corrosion/ irritation - 2
Serious eye damage/ eye irritation - 2A

Hazard statements:

H315 Causes skin irritation
H319 Causes serious eye irritation

Precautionary statements:

P264j Wash hands thoroughly after handling
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P302+352 IF ON SKIN: Wash with plenty of soap and water
P332+313 IF SKIN irritation occurs: Get medical advice/ attention
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see first aid instructions on this label)
P337+313 If eye irritation persists: Get medical advice/ attention
P362+364 Take off contaminated clothing and wash it before reuse

Hazards not otherwise classified:

None

HMIS ratings (scale 0-4):

Health: 1
Flammability: 0
Physical hazard: 1

3 Composition/Information on ingredients

Chemical name: Lithium orthosilicate
Designation: (CAS#): 13453-84-4
EC Number: 236-634-1
Formula: Li_4O_4
Synonyms: Orthosilicic acid, tetralithium salt

4 First aid measures

After inhalation: Seek immediate medical advice
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

After skin contact: Instantly wash with water and soap and rinse thoroughly
If irritation persists, consult a physician

After eye contact: Rinse opened eye for at least 15 minutes under running water. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

After ingestion: If conscious, rinse mouth out with water and seek medical attention
Information for doctor: Show this safety data sheet to the doctor in attendance
Immediate medical attention and special treatment needed: May cause irritation to the eyes, skin, and/or respiratory system

5 Fire-fighting measures

Suitable extinguishing agents: Use extinguishing media most appropriate to surrounding fire conditions
Special hazards caused by the material, its products of combustion or resulting gases: In case of fire, the following can be released:
Oxides of lithium and silicon
Special fire fighting procedures: Wear self-contained breathing apparatus
Wear fully protective fire fighting equipment/clothing in fire situations
Unusual fire and explosion hazard: Not applicable

6 Accidental release measures

Person-related safety precautions: Wear personal protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Measures for environmental protection: Do not allow material to be released to the environment without proper governmental permits
Measures for cleaning/collecting: Dispose of contaminated material as waste according to item 13
Place in a suitable container for proper disposal
Ventilate and wash spill site after material removal is complete
Additional information: See Section 7 for information on safe handling
See Section 8 for information on personal protective equipment
See Section 13 for information on disposal

7 Handling and storage

Information for safe handling: Keep containers tightly sealed
Store in cool, dry place in tightly closed containers
Ensure good ventilation/exhaustion at the workplace
Information about protection against explosions and fires: This product is not flammable
Storage requirements to be met by storerooms and containers: No special requirements
Incompatibility (avoid contact with): Store away from oxidizing agents
Water/moisture
Further information about storage conditions: Keep container tightly sealed
Store in cool, dry conditions in well sealed containers

8 Exposure controls/personal protection

Ventilation requirements: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute
Components with critical values that require monitoring at the workplace: None
Additional information: None
Personal protective equipment:
General protective and hygienic measures: The usual precautionary measures should be adhered to in handling the chemicals
Keep away from foodstuffs, beverages and food
Instantly remove any soiled and impregnated garments
Wash hands during breaks and at the end of the work
Avoid contact with the eyes and skin
Personal protective equipment:
Respiratory protection: Filter, dust, fume, mist
(Use only NIOSH or CEN approved Equipment) Use only NIOSH/MESA or CEN approved dust mask type N95 or TYPE P1 (EN 143)
Hand protection: Impervious gloves. Gloves should be inspected prior to use.
Eye protection: Safety glasses
Skin protection: Protective work clothing
Additional protective equipment: Sufficient to prevent contact
Emergency eyewash and safety shower
Precautionary labeling: Wash thoroughly after handling
Do not get in eyes, on skin or on clothing
Do not breathe dust, vapor, mist, gas
Store in tightly closed containers
Store in a cool, dry place. Irritant.

9 Physical and chemical properties

General Information:
Physical state: Powder
Color: White

Odor:	Odorless
Odor threshold:	No data available
Molecular Weight (Calculated):	119.84
pH (5% solution)	No data available
Melting point/freezing point/range:	1255 °C
Boiling point/range:	No data available
Sublimation temperature/start:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	
Flash point:	Non-flammable
Autoignition temperature:	No data available
Danger of explosion:	No data available
Flammable limits:	
Lower:	No data available
Upper:	No data available
Evaporation rate:	No data available
Vapor pressure (mm Hg):	No data available
Vapor density:	No data available
Specific gravity:	2.326
Bulk density:	No data available
Solubility in/Miscibility with water:	Insoluble
Partition coefficient n-octanol/water:	No data available
Viscosity:	No data available
Other information:	No additional information

10 Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Reacts with strong oxidizing agents.
Conditions to be avoided:	No decomposition if used and stored according to specifications See section 7 for information on proper handling and storage
Materials to be avoided:	Water/moisture (hygroscopic) Strong oxidizing agents and acids
Dangerous reactions:	No dangerous reactions known
Hazardous decomposition products: (thermal and other)	Oxides of lithium and silicon

11 Toxicological information

Acute toxicity:	No data available
LD/LC50 values that are relevant for classification:	No data available
Irritation or corrosion of skin:	No data available
Irritation or corrosion of eyes:	No data available
Primary irritant or corrosive effect: on the skin:	May cause mild irritation
on the eye:	May cause mild irritation
Sensitization:	No sensitizing effect known
Potential health effects:	No data available
Inhalation:	May be harmful
Ingestion:	May be harmful
Skin:	May cause mild irritation
Eyes:	May cause mild irritation
Signs and symptoms of exposure:	Product may cause irritation to the eyes, skin and respiratory system. Inorganic silicon compounds may be acute inhalation irritants. Prolonged inhalation may cause pulmonary fibrosis known as silicosis. Large amounts of lithium compounds may cause vomiting, diarrhea, ataxia, intestinal irritation, kidney injury, central nervous system suppression and a drop in blood pressure. To the best of our knowledge the acute and chronic toxicity of the substance is not fully known
Carcinogenicity:	Not identified as a carcinogen or potential carcinogen by IARC, ACGIH, NTP or OSHA

12 Ecological information

Toxicity:	No data available
Toxicity to fish:	No data available
Toxicity to daphnia and other aquatic invertebrates:	No data available
Toxicity to algae:	No data available
Persistence and degradability:	
Biodegradability:	No data available
Bioaccumulative potential:	No data available

Bioaccumulation: No data available
Mobility in soil: No data available
Other adverse effects: No data available

13 Disposal considerations

Recommendation: Consult state, local or national regulation for proper disposal
Allow professional disposal company to handle waste
Must be specially treated under adherence to official regulations
Unclean packaging recommendation: Disposal must be made according to official regulations

14 Transport information

Land transport DOT

Proper shipping name: Chemicals Non-Hazardous
Technical name: Lithium orthosilicate

Air transport ICAO-TI and IATA-DGR:

Proper shipping name: Chemicals Non-Hazardous
Technical name: Lithium orthosilicate

UPS Ground / FedEx Ground

Proper shipping name: Chemicals Non-Hazardous
Technical name: Lithium orthosilicate

UPS Air

Proper shipping name: Chemicals Non-Hazardous
Technical name: Lithium orthosilicate

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs: Not subject to reporting requirements
SARA Section 311 / 312 hazards: Not subject to reporting requirements
SARA Section 313 components: Not subject to reporting requirements
California Proposition 65 components: Not subject to reporting requirements
TSCA: This product is listed in the TSCA inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.