

1. IDENTIFICATION

- 1.1 Product identifier
 Trade name : PSC 2510 CureHard
 Chemical name : Mixture of Lithium, Sodium Silicate.
- 1.2 Recommended use of the product and restrictions on use
 Recommended use : Industrial Use Only
 Non- recommended use(s) : None known
- 1.3 Details of the supplier of the safety data sheet
 Company : Polymer Science Corporation.
 : Unit 1133, 6027 – 79 Avenue S.E
 : Calgary, Alberta. Canada T2C 5P1
 Telephone : 403 287 2751
 Fax : 403 287 2766
 Website : www.polymersciencecorp.com
- 1.4 Emergency telephone number
 Emergency : In case of emergency call CANUTEC: 613-996-6666

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

- Skin Corrosion / irritation : Category 2
 Eye Damage / Eye Irritation : Category 2
- Hazards summary : Alkaline
 Causes severe skin burns and eye damage.
 Caution- Spillages may be slippery

2.2 Label Elements

Symbol :



- Signal word : Warning.
- Hazard statement : H315: Causes severe skin irritation.
 : H319: Cause serious eye irritation.
- Precautionary Statements : P262: Do not get in eyes, on skin, or on clothing.
 P264 Wash skin thoroughly after handling
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing
 Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
 lenses, if present and easy to do. Continue rinsing.Immediately call a POISON CENTER/doctor.
- Other hazards : Spilled material is very slippery.

3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

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3.2 Mixtures

PSC 2510 CureHard.
HAZARDOUS INGREDIENTS

Silicic acid, Sodium salt		
Lithium Silicate		
Water		

C.A.S.#	WEIGHT %
1344-09-8	10 - 30
12627-14-4	5 - 10
7732-18-5	40 - 80

4 FIRST AID MEASURES

4.1 Description of first aid measures

EYE CONTACT:	Rinse cautiously with eyewash solution or clean water, holding the eyelids apart for several minutes. Remove contact lenses if present and easy to do. If eye irritation persists: Get medical attention. Continue rinsing eyes during transport to hospital
SKIN CONTACT:	If on skin or hair, take off immediately all contaminated clothing and shoes. Rinse skin, washing thoroughly with water. Get medical attention if irritation persists.
INHALATION:	Remove patient from exposure. Keep warm and at rest. Get medical attention
INGESTION:	Clean mouth with water and drink afterwards a glass of water. Keep respiratory tract clear. Do not induce vomiting. Immediately call a POISON CENTER / Doctor

- 4.2 Most important symptoms and effects, both acute and delayed: Alkaline.
Irritating to eyes and skin.
May
Treat symptomatically and supportively.
- 4.3 Notes to Physician.
- 4.4

5 FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media
Suitable extinguishing media : Compatible with all standard fire fighting techniques.
Unsuitable extinguishing media : None known
- 5.2 Hazards : Not applicable. Aqueous solution. Non-combustible
- 5.3 Fire-fighting instructions : None.

6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures.
Use personal protective equipment. Wear chemical safety glasses, rubber boots and heavy rubber gloves. Prevent further leakage or spillage if safe to do so.
- 6.2 Environmental precautions
Do not allow to enter drains, waterways, sewers, basements or confined areas.
Do not discharge into the subsoil / soil. Absorb spills with inert material and place in a chemical waste container. If the product contaminates rivers and lakes or drains inform the respective authorities. Prevent spreading over a wide area (e.g. by containment or oil barriers)
- 6.3 Methods and materials for containment and cleaning up
Caution: Spillages may be slippery. Soak up with inert absorbent material (e.g. sand, silica gel, universal binder, sawdust) Keep in suitable, closed containers for disposal.

7 HANDLING AND STORAGE

- 7.1 Precautions for safe handling
Avoid all personal contact. Use personal protective equipment. Avoid generation of mist. Provide adequate ventilation. Emergency shower and eye wash facilities should be readily available. Do not eat, drink or smoke at the work place. Keep container tightly closed. Take care to prevent spills, waste and minimize release to the environment.
- 7.2 Hygiene considerations.
Wash hands before breaks and after work. Remove soiled or soaked clothing immediately. Wash contaminated clothes before reuse. Do not eat, drink or smoke when handling this product. Remove contaminated clothing and protective equipment before entering eating areas.
- 7.3 Safe storage procedures
Keep at a temperature not exceeding 50 °C. Do not allow material to freeze. Unsuitable containers: Aluminium

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

Hazardous Components (Chemical Name)	Occupational Exposure Limits
Silicic acid, Sodium salt	No Occupational Exposure Limit assigned
Lithium Silicate	No Occupational Exposure Limit assigned
Water	No Occupational Exposure Limit assigned

8.2 EXPOSURE CONTROLS

ENGINEERING CONTROLS

Use local exhaust ventilation to maintain airborne concentrations at safe levels. Suitable respiratory equipment should be used in cases of insufficient ventilation or where demand it. Minimize workplace exposure concentrations.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Equipment	: Respiratory protection not normally required.
Eye Protection	: Use tightly fitting chemical splash goggles. Wear face shield if splashing hazard exists.
Hand Protection	: Use impermeable gloves. Neoprene or butyl-rubber gloves
Body Protection	: Use impervious clothing and chemical resistant boots. Consider using resistant coveralls and aprons, if extensive exposure is possible.
Other Protective Equipment	: Ensure that eyewash stations and safety showers are close to the workstation location.
General Hygiene Consideration	: Do not breathe the mist or vapor. Avoid all contact. Do not eat, drink, or smoke when using this product. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not take contaminated clothes home.
Environmental Exposure Controls	: The primary hazard of this product is the alkalinity. Avoid runoff into storm sewers and ditches which lead to waterways.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical State	: Liquid.
Color	: Clear, Colorless.
Odor	: Odourless
Properties	
Boiling Point	: Not applicable
Melting Point	: Not available
Freezing Point	: Not available
Flash Point	: Not available.
PH	: 10 - 11
Specific Gravity	: 1.1 – 1.2 g/ cm ³
Viscosity	: Not available
VOC content	: 0
Evaporation rate	: Not applicable
Solubility in water	: Soluble
Vapour pressure	: Not applicable
Vapour density	: No data
Auto ignition Point	: Not applicable
Decomposition Temperature	: Not applicable
Explosive properties	: Not applicable
Oxidizing Properties	: No data

10 STABILITY AND REACTIVITY

Chemical Stability	: Stable under normal conditions
Possibility of hazardous reactions	: When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions will react with aluminium, zinc, tin and their alloy evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.
Conditions to avoid	: see previous item.

11 TOXICOLOGICAL INFORMATION

Acute toxicity

Ingestion	: All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/Kg. Lithium compounds may damage the central nervous system. A large dose may have the following effects: Headache, nausea, dizziness, convulsions, kidney damage.
Inhalation	: Mist is irritant to the respiratory tract. All symptoms of acute toxicity are due to high alkalinity. Inhalation LC50 (rat) >2.06 g/m ³
Skin Contact	: Material will cause irritation. Dermal LD50 (rat)>5000 mg/Kg
Eye Contact	: Material will cause irritation. Liquid or mist may cause discomfort and mild irritation.
Skin corrosion/irritation	: Irritating to skin
Serious eye damage/irritation	: Irritating to eyes.
Sensitisation	: Not sensitising
Mutagenicity	: No evidence of genotoxicity. In vitro/in vivo negative
Carcinogenicity	: No structural alerts IARC, NTP, OSHA, ACGIH do not list this product as known or suspected carcinogen.
Reproductive toxicity	: No evidence of reproductive toxicity or developmental toxicity for sodium silicate. Lithium compounds- teratogenic Effects have been observed in laboratory animals.
Specific Target Organ Toxicity Single Exposure	: Not Classified
Specific Target Organ Toxicity Repeated Exposure	: Not Classified
Aspiration Hazard	: No aspiration hazard expected.

12 ECOLOGICAL INFORMATION

12.1 Toxicity	: Fish (Brachydanio rerio) LC50 (96 hour) 1108 mg/l Aquatic invertebrates: (Daphnia magna) EC50 (48 hour) 1700 mg/l
12.2 Persistence and Degradability	: Inorganic. Soluble silicates, upon dilution, rapidly depolymerize into molecular species indistinguishable from Natural dissolved silica.
12.3 Bioaccumulative potential	: Inorganic. The substances have no potential for bioaccumulation
12.4 Mobility in Soil	: Not applicable
12.5 Results of PBT and vPvB assessment	: Not classified as PBT or vPvB
12.6 Other adverse effects	: The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH

13 DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of this material and its container to hazardous or special waste collection point. Do not discharge substance/product into sewage system. Do not contaminate pond, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil.

14 TRANSPORTATION INFORMATION

14.1 Identification, UN number	: Not Classified according to the United Nations Not classified as hazardous under DOT or US Transport International Maritime Dangerous Good (IMDG) Code: Not classified as hazardous.
14.2 Shipping Name	: Not applicable
14.3 Hazard Class	: Not applicable

14.4 Packing Group : Not applicable
14.5 Environmental Hazards : Not classified as a Marine Pollutant
14.6 Special precautions for user : Unsuitable containers: Aluminium

15 OTHER INFORMATION

Preparation Date : March 14, 2017
SDS prepared by : Polymer Science Corp. 403 287 2751

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