




SAFETY DATA SHEET

1. Identification

Product Identifier	Lithium Silicate Densifier Concentrate	
Other means of identification		
Product code	CU-2580	
Recommended use	Lithium silicate densifier for concrete.	
Recommended restrictions	Professional use only.	
Manufacturer information		
Company name	Chemical Universe, Inc.	
Address	1133 Saline St. North Kansas City, MO 64116	
Telephone	(816) 471-3602	
FAX	(816) 474-3302	
Emergency phone number	PERS	(800) 633-8253
	24 hour Emergency	(800) 633-8253

2. Hazard(s) Identification

Physical hazards	Not classified	
Health hazards	Skin irritation	Category 2
	Eye irritation	Category 2A
Environmental hazards	Not classified	
OSHA defined hazards	Not listed	
Label elements		

Signal word	Warning	
Hazard statement	Causes skin irritation Causes serious eye irritation	
Precautionary statement		
Prevention	Wash hands and exposed skin thoroughly after handling. Wear protective gloves. Wear eye protection/face protection.	
Response	IF ON SKIN: Wash with plenty of water. Specific treatment (see section 5 of the SDS). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.	
Storage		
Disposal		
Hazard(s) not otherwise classified (HNOC)	None	
Supplemental information	None	

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Lithium Silicate	12627-14-4	<50
Other components below reportable levels		25-75

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water for at least 15 minutes. Remove contact lenses if present and easy to do. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	Dermatitis. Rash. Causes skin irritation and serious eye irritation.
Indication of immediate medical attention and special treatment needed	Provide general support measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂)
Unsuitable extinguishing media	None known
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protecting clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Wear appropriate protective equipment and clothing during clean-up. Wear eye/face protection.
Methods and materials for containment and cleaning up	Caution – spillages may be slippery Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original container for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into areas not consistent with package labeling.

7. Handling and storage

Precautions for safe handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage,	Store in original tightly closed container. Do not store in extreme conditions.

including any incompatibilities

8. Exposure controls/personal protection

Occupational exposure limits

None established

Biological limit values

None established

Appropriate engineering controls

Emergency eye wash stations and showers should be readily accessible. Provide natural or mechanical ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves

Other

Wear long sleeve shirts with pants.

Respiratory protection

Respiratory protection not required.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke or use chewing tobacco. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical State

Clear liquid

Color

Colorless

Odor

Characteristic

Odor threshold

Not available.

pH

10.5-11.4

Melting/freezing point

Not available.

Initial boiling point and boiling range

212°F (100°C)

Flash point

Does not flash.

Evaporation rate

Not available.

Flammability

Not available.

Flammability Limits

Upper

Not available.

Lower

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Specific gravity

1.12

Solubility in water

Soluble

Partition coefficient (n-octanol/water)

Not available.

Auto-ignition temperature

Not available.

Decomposition temperature

>392°F (200°C)

Viscosity Not available.

10. Stability and reactivity

Reactivity This product is stable and non-reactive under normal conditions of use.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid Heat, flames
Incompatible materials Reactive metals (e.g. sodium, calcium ,zinc), strong acids, oxidizing agents
Hazardous decomposition products Carbon monoxide, carbon dioxide

11. Toxicological information

Information on likely routes of exposure

Ingestion Lithium compounds may damage central nervous system resulting in headache and nausea.
Inhalation Mist is irritant to respiratory tract.
Skin contact Repeated and/or prolonged skin contact causes skin irritation.
Eye contact Liquid or mist causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics Dermatitis. Rash. May cause an allergic skin reaction, skin irritation, serious eye irritation.
Acute toxicity Causes skin irritation and serious eye irritation.

Product	Route and Species	Test Results
Lithium Silicate Densifier Concentrate (CAS mixture)		
Acute	<i>Oral, rat</i>	LD ₅₀ : >5,000 mg/kg estimated
	<i>Dermal, rat</i>	LD ₅₀ : >5,000 mg/kg estimated
	<i>Inhalation, rat</i>	ALC (4hr): 33.6 mg/L

*Estimates for product may be based on additional component data not shown

Skin corrosion/irritation Causes skin irritation.
Serious eye damage/irritation Causes serious eye irritation
Respiratory sensitization Not classified.
Skin sensitization Not classified.
Germ cell mutagenicity Not classified.
Carcinogenicity Not considered a carcinogen.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not Listed.
Reproductive toxicity Not classified.
Specific target organ toxicity – single exposure Not classified.
Specific target organ toxicity – repeated exposure Not classified.
Aspiration hazard Not considered an aspiration hazard.

12. Ecological information

Ecotoxicity

Product	Species	Test Results
Lithium Silicate Densifier Concentrate (CAS mixture)		
Aquatic		
Crustacea	Daphnia magna	EC ₅₀ (48hr): >10,000 mg/L estimated

*Estimates for product may be based on additional component data not shown

Persistence and degradability	Soluble silicates: upon dilution, rapidly depolymerize into molecular species indistinguishable from natural dissolved silica.
Bioaccumulative potential	No data available.
Mobility in soil	Not available
Other adverse effects	The alkalinity of this material may have a local effect on ecosystems sensitive to changes in pH.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations
Waste from residues/unused product	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may contain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

TDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

US federal regulations

SARA 302 Extremely hazardous substance

Not listed.

SARA 304 Emergency release notification

Not listed.

SARA 311/312 Hazard Categories

Immediate Hazard - Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SARA 313 (TRI reporting)

Not listed.

16. Other information, including date of preparation or last revision

Issue date	9/2/2014
Revision date	7/27/2015
Version #	1
HMIS® ratings	Health: 1 Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 1 Flammability: 0 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, and have been obtained from resources believed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified by the text.
Revision information	Transportation information. Composition/information on ingredients.