

SAFETY DATA SHEET

Version 1.2

Revision Date: 12/21/2016 BH

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name: CSES-1000

1.2 CAS-NO.: Not Assigned

1.3 Relevant Identified Uses of the Product: Oil/Gas Well Service Cleaner; Water Treatment

1.4 Details of the supplier of the safety data sheet:

ChemiSol LLC

11 Park Place

Mansfield, TX 76063

Telephone: (214)-449-7807

1.5 Emergency telephone number: Chemtrec (800) 424-9300

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin Irritant (Category 2)

Eye Irritant (Category 2)

2.2 Hazards Summary:

Alkaline; Irritating to eyes and skin; spilled material is slippery

2.3 GHS Label elements, including precautionary statements

2.3.1 Pictogram



2.3.2 Signal Word:

Warning

2.3.3 Hazard Statements

H315 Causes skin irritation

H319 Causes serious eye irritation

2.3.4 Precautionary Statements

P262 Do not get in eyes, on skin, or on clothing.

P280 Wear protective gloves and eye or face protection.

- P303 + P361 + P353 If on skin: Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305 + P351 +P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3.5 Disposal

Dispose of contents/containers to approved disposal site in accord with local, regional, or international regulations.

3. COMPOSITION INFORMATION ON INGREDIENTS

<u>Substances</u>	<u>CAS #</u>	<u>Weight %</u>
Water	7732-18-5	80-85%
Sodium Silicate	1344-09-8	15-20%

4. FIRST AID MEASURES

Description of first aid measures

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of the dangerous area.
In case of skin contact	Take off contaminated clothing and shoes immediately. Wash with soap and plenty of water. Consult a physician if needed.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If inhaled	If breathed in, move person into fresh air and consult a physician.
If swallowed Do not induce vomiting.	Never give anything by mouth to an unconscious person. Rinse mouth with water and consult a physician.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

None known. Aqueous solution. Non-combustible

5.3 Advice for firefighters

None

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up.

Soak up with inert absorbent material and dispose. Keep in suitable closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe storage

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed and protect from excessive heat. Store above 32 °F.

7.3 Specific end use(s)

Oil/Gas Well service cleaner or water treatment.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Sodium Silicate has no known Occupational Exposure Limits

8.2 Exposure Controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Use personal protective equipment as outlined:

8.2.1 Eye/Face Protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.2.2 Skin Protection

Wear suitable protective clothing and gloves. Handle with plastic or rubber gloves. For example, EN374-3, level 6 breakthrough time (>480 min) Wear suitable overalls.

8.2.3 Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Otherwise, respiratory protection is not normally required.

8.3 Control of environmental exposure

The primary hazard is the alkalinity. Avoid release into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	colorless or pale grey
Odor	None
pH	11.2-11.7
Evaporation rate	No data available
Melting (Freezing) Point	No data available
Boiling Point	100 °C
Flash Point	No data available
Auto-ignition temperature	No data available
Flammability	No data available
Density	1.2 g/mL at room temperature
Solubility	Soluble in water
Viscosity	No data available
Explosive properties	No data available

Oxidizing properties	No data available
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9.2 Other Information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

See possibility of hazardous reactions

10.2 Chemical stability

Product stable under normal conditions.

10.3 Possibility of hazardous reactions

Can react violently in contact with acids.

10.4 Conditions to avoid

See possibility of hazardous reactions

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

None known

11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects:

11.1 Acute toxicity	
11.1.1 Ingestion	All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/kg
11.1.2 Inhalation	Mist is irritant to the respiratory tract. All symptoms of acute toxicity are due to high alkalinity. Inhalation LC50 (rat) >2.06 g/m3
11.1.3 Skin Contact	Material will cause irritation. Dermal LD50 (rat) >5,000 mg/kg
11.1.4 Eye Contact	Material will cause irritation
11.1.5 Skin Corrosion/Irritation	Irritating to the skin
11.1.6 Serious Eye Damage/Irritation	Irritating to the eyes
11.1.7 Sensitization	Not sensitizing
11.1.8 Mutagenicity	Not known
11.1.9 Carcinogenicity	No data available on product. Precursor chemicals have not been found to be a possible or potential human carcinogen per OSHA, NTP, ACGIH and IHARC.
11.2 Reproductive Toxicity	No data available on product
11.2.1 STOT- Single Exposure	No data available on product

11.2.2	STOT- Repeated Exposure	No data available on product
11.2.3	Aspiration Hazard	No data available on product

12.ECOLOGICAL INFORMATION

12.1 Toxicity

No data available

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 substance has no potential for bioaccumulation

12.4 Mobility in soil

No data available

12.5 Results of PBT assessment

No data available.

12.6 Other adverse effects

The alkalinity of this material may have a local effect on ecosystems sensitive to changes in pH.

13.DISPOSAL CONSIDERATIONS

Waste disposal recommendations

Dispose of contents/containers in accordance with local/regional/national/international regulations.

14.TRANSPORT INFORMATION

14.1 UN Number Information

Not classified according to the UN “recommendations on the transport of dangerous goods”; non classified as hazardous under DOT or US Transport Recommendations; International Maritime Dangerous Goods (IMDG) Code: Not classified.

14.2 Proper Shipping Name

Not applicable

14.3 Transport Hazard Class(es)

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: Aluminum

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

15.1 US Regulations:

U.S. SARA Reporting Requirements: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA 311/312: Acute Health: Yes; Chronic Health: No; Fire: No; Reactivity: No

U.S. CERCLA Reportable Quantity: None

U.S. TSCA Inventory Status: The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations: None known

California Safe Drinking Water and Toxic Enforcement Act (Proposition 66): This product does not contain ingredients on the Proposition 65 Lists.

15.2 Canadian Regulations:

Canadian DSL/NDSL

Inventory Status: Components are DSL Listed, NDSL Listed and/or are exempt from listing

Other Canadian Regulations: Not applicable

Canadian Environmental Protection Act (CEPA) Priorities Substances Lists: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian WHMIS Classification and Symbols: This product is Class E, Corrosive, and D2B, Materials causing other toxic effects, per WHMIS Controlled Product Regulations

15.3 European Economic Community Information:

This product meets the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

15.4 Australian Information for Product:

Components of this product are listed on the International Chemical Inventory list.

16. OTHER INFORMATION

None