

MATERIAL SAFETY DATA SHEET (MSDS)

Alkaline Sodium Silicate Glass Liquid

PRODUCT NAME : Alkaline Sodium Silicate Glass Liquid

HSN CODE NO. : 28391900

TRADE NAME : Sodium Silicate Water Glass, Sodium Silicate Liquid, Sodium Silicate Solution

MANUFACTURER NAME : SHREENATH MARKETING,

ADDRESS (Works) : 1056, Opp. ONGC EPS, At. Langhnaj,
Ta. & Dist. Mehsana-382730,
North Gujarat, INDIA.

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Modhera Road,
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CHEMICAL COMPOSITION : Non dusting homogeneous formulation of Soda Ash or caustic Soda lie With Silica Sand and water

REACTION : $2\text{NaOH} + \text{SiO}_2 \xrightarrow{\text{Temp. + Pressure}} (\text{Na}_2\text{O})_x \cdot \text{SiO}_2 + x\text{H}_2\text{O}$

EMERGENCY OVERVIEW:-

Color : Colorless, Transparent.

Physical state : Thick Liquid

Appearance : Clear Liquid

Odor : Odorless to slight odor

Health Hazard : Harmful if swallowed.

Physical Hazards : No physical hazard by touching. May cause irritation to eyes.

COMPOSITION/INFORMATION ON INGREDIENTS:-

Chemical Name	CAS Registry No.	Wt. %
Water	7732-18-5	60%
Sodium Silicate	1344-09-8	40%

PRECAUTIONARY STATEMENT:-

Do not get in eyes.

Wear eye protection.

(A) If on Skin (or hair): Remove / Take off all contaminated clothing. Rinse skin with water or shower.

(B) If in Eyes : Rinse with water for several minutes. Remove contact lenses, if present and easy to Do. Continue rinsing.

(C) Ingestion : IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse Mouth. Do not induce vomiting.

(D) Other hazards : Not applicable.

FIRST AID MEASURES:-

(A) Skin Contact: Flush contaminated areas with water. Remove contaminated clothing, jewelry, and shoes. Wash contaminated areas with water. Thoroughly clean and dry contaminated clothing and shoes before reuse.

(B) Eye Contact: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention.

(C) Ingestion: Never give anything by mouth to an unconscious or convulsive person. If swallowed, do not induce vomiting. Give large amounts of water. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.

(D) Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

ACCIDENTAL RELEASE MEASURES:-

Precautions : NA

Spill or Leak Procedures : Can be sponged up and flushed with water.

EXPOSURE CONTROLS / PERSONAL PROTECTION:-

Exposure controls: NA

Personal Protective Equipment:

(A) Eye Protection : Wear safety glasses with side-shields. If eye contact is likely, wear Chemical resistant safety goggles.

(B) Skin and Body Protection : Wear protective clothing to minimize skin contact.

(C) Hand Protection : Wear appropriate chemical resistant gloves if required.

(D) Hygiene measures : Change contaminated clothing and clean before re-use.

HANDLING OF SPILLS AND LEAKS:-

(A) Environmental Hazard: High pH (alkalinity) of undiluted or non-neutralized material is harmful not a listed toxic chemical under SARA title III,-302, -304 or -313.

(B) Waste Disposal Method: Not a RCRA Hazardous waste. Neutralize with dilute acid and landfill Solids according to regulations. Flush neutral liquid to sewer with plenty of water.

(C) First Aid Procedures: In case of contact, immediately flush eyes or skin with plenty of water. Call a physician. Wash clothing before reuse.

(D) Spillage: Sinks and mixes with water.

(E) Physical Hazard: Dries to form glass film which can easily cut skin. Spills are very slippery. Can etch neither glass if nor promptly removed.

HEALTH HAZARD: -

(1) Causes Eye Irritation.

(2) Causes Skin Irritation.

(3) Causes Irritation to respiratory track.

(4) No known chronic hazard.

FIRE-FIGHTING MEASURES:-

(A) Fire Hazard : Not fire hazard.

(B) Sensitivity to Mechanical Impact : Not sensitive.

(C) Sensitivity to Static Discharge : Not sensitive.

(D) Lower Flammability Level (air) : Not flammable

(E) Upper Flammability Level (air) : Not flammable

(F) Flash point : Not flammable

(G) Auto-ignition Temperature : Not applicable

ALKALINE SODIUM SILICATE GALSS LIQUID SPECIFICATION	
Description	Specification Alkaline Glass Liquid
Physical State	Thick liquid
Appearance	Clear Liquid
color	Colorless, Transparent
Total Solid (%)	30 to 40
Weight Ratio (Na ₂ O: SiO ₂)	1:1.5 to 1.2
P.H	12-13
Specific Gravity (Density)	1.30 to 1.50
Stability and reactivity	Stable at Normal pressure and temperature
Melting Point	Not applicable.
Boiling Point (C°)	101.5 - 102
Water soluble (%)	100
Freezing point (C°)	-1°
Evaporation Temperature (C°)	Not applicable
Vapor pressure	Not applicable
Vapor density	Not applicable
Molecular formula	(Na ₂ O) _x · (SiO ₂) _y · H ₂ O

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HMIS: (SCALE 0-5) (Rated using National Paint & Coatings Association HMIS: Rating Instructions, 2nd Edition), Hazard Identification Ratings (SCALE 0-4)

Flammability: 0

Reactivity Rating: 0

Health Rating: 1

REGULATORY INFORMATION:-

WHMIS (Canada) : Class D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the the MSDS contains all the information required by the Controlled Products Regulations.

DSL (Canada) : All components of this formulation are listed on the CEPA-DSL

CERCLA (US) : No CERCLA Reportable Quantity has been established for this material.

SARA TITLE III (US) : Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute.

TSCA (US) : All ingredients of this material are listed on the TSCA inventory.

FDA : The use of sodium silicate is authorized by FDA as a boiler water additive for the production of steam that will contact food pursuant to 21 CFR §173.310; as a component of zinc-silicon dioxide matrix coatings on food contact surfaces pursuant to 21 CFR §175.390(c); as a GRAS substance when migrating from cotton fabric used in dry food packaging pursuant to 21 CFR §182.70; and as a GRAS substance when migrating to food from paper and paperboard products pursuant to 21 CFR §182.90.

GHS (GLOBALLY HARMONIZED SYSTEM) CLASSIFICATION:-

HAZARD KEY : 4 - Sever

3 - Serious

2 - Moderate

1 - Slight

0 – Minimal

(A) GHS: CONTACT HAZARD – SKIN : Category 2 - Causes skin irritation.

- (B) GHS: CONTACT HAZARD – EYE : Category 1 - Causes serious eye damage
- (C) GHS: ACUTE TOXICITY –INHALATION : No data available not classified
- (D) GHS: ACUTE TOXICITY – ORAL : Category 4 - Harmful if swallowed.
- (E) GHS: ACUTE TOXICITY –DERMAL : Not classified as acutely toxic for dermal exposure.
- (F) GHS: CARCINOGENICITY : Not classified as a carcinogen per GHS criteria.
- (GHS stands for the **Globally Harmonized System of Classification and Labeling** of Chemicals.)

- Stability** : This material is stable under all conditions of use and storage.
- Conditions to avoid** : None.
- Materials to avoid** : Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, tin, lead, and zinc.

HANDLING, STORAGE AND DISPOSAL CONDITIONS:-

- Storage Conditions** : Store and handle in accordance with all current regulations and Standards. Keep containers closed. Store in clean steel or plastic 95° containers. Separate from acids, reactive metals, and ammonium salts.
- Storage temperature 0- C. Loading temperature 45-95 ° C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.
- Handling Procedures** : Do not get in eyes, on skin, or on clothing. Wash thoroughly with water after handling if gets contacted, keep container closed.
- Disposal Conditions** : Dispose in accordance with federal, state and local regulations.

- Ecological Information** : readily degradable in the environments.
- Mobility in soil** : aqueous solution as high mobility in soil.

Product Use: - Adhesives and binders, pulp and paper, deinking, detergents / soaps, catalysts, Textiles, drilling fluids, mineral processing, refractory, cements, pharmacy, Food Dyes, Ceramic, synthetic Zeolites, casting, foundry, Paint, precipitated silica, Cosmetics, water treatments, construction, pigment. Wood Coating

REGULATORY INFORMATION:-

TSCA: All ingredients of this material are listed on the TSCA inventory (Toxic Substances control Act).

Prepared by : Shreenath Marketing_Mehsana, North Gujarat, INDIA.

Addition Date : March 2003; **Revision Date:** Nil.

OTHER INFORMATION:-

The Information on This Safety Data Sheet Is Believed to Be Accurate and It Is the Best Information Available. No Liability Resulting from the Use or Handling of the Product to Which This Safety Data Sheet Relates. Users and Handlers of This Product Should Make Their Own Investigations to Determine the Suitability of The Information Provided Here in for Their Own Purposes.