

Material Safety data sheet

Section one

Chemical product and company identification

Product name	Sodium silicate liquid (moderate PH)
Manufacturer	Al Amreya for chemicals and detergents
Main usage	Adhesives, pulp and paper, deinking, detergents, gels, catalysts, soil stabilization, textiles
Address	Borg el arab second zone – block 28
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SECTION 2

HAZARD IDENTIFICATION

GHS CLASSIFICATION

Self Reactive Substances : Type G (No symbol & signal word used)

Acute Toxicity

Oral : Category 4 (Exclamation Mark, Warning)

Dermal : Category 5 (No symbol is used, Warning)

Inhalation : Not Classified (No information found)

Skin Corrosion/Irritation : Category 2 (Exclamation Mark, Warning)

Serious Eye Damage /Corrosion : Category 2A (Exclamation Mark, Warning)

Respiratory Sensitization : Category 1 (Health Hazard, Danger)

Specific Target Organs : Category 2 (Health Hazard, Warning)

HAZARD STATEMENTS

Human Effect :

Harmful if swallowed or inhaled

Causes skin irritation and eye irritaton

May cause respiratory irritation

Cause damage to organs (nervous system, respiratory system) through prolonged or repeated exposure

PRECAUTIONARY STATEMENTS

Obtain special treatment before use.

Use only with adequate ventilation

Wear respiratory protection, protective glove/clothing/face protection as specified by manufacturer/supplier or the competent authority

Keep container tightly closed

Take precautionary measures against static discharge

Protective clothing or contaminated work clothing should not be allowed out of the workplace

Avoid breathing vapour or mist

Wash hand thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid release to the environment

Do not handle until all safety precaution have been read and understood.

SECTION 3

COMPOSITION AND SPECIFICATIONS

CHEMICAL NAME : Sodium Silicates

SYNONYMS : Water glass, Soluble Glass, Liquid Silicate of Soda,

CHEMICAL FORMULA : $\text{Na}_2\text{O}(\text{SiO}_2)_x \cdot (\text{H}_2\text{O})_x$

ITEM	SPECIFICATIONS
COLOR	COLORLESS
ODOR	ODORLESS
BAUME @20C	46:50
SPECIFIC GRAVITY	1.45:1.55 g/cm
SODIUM OXIDE (NA ₂ O)	11:14
SILICON DIOXIDE (SIO ₂)	30:34
WEIGHT RATIO	2.6:3.2
TORAL SOLID CONTENT	41:47%

SECTION 4
FIRST-AID MEASURE

Inhalation :

Flush mouth and nasal passages thoroughly with water

Ingestion :

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact :

Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact :

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SECTION 5

FIRE-FIGHTING MEASURES

Specific Hazard :

Non Combusting material.

Fire Fighting Advice :

Decomposes on heating emitting toxic fumes, including those of oxides of sulfur.

Fire fighters to wear self – contained breathing apparatus and suitable protective clothing if risk of exposure to products decomposition.

Suitable Extinguishing Media :

Not combustible, however, if material is involved in a fire use: Dry agent (carbon dioxide, dry chemical powder).

SECTION 6

ACCIDENTAL RELEASE MEASURES

Personal precautions:

Evacuate unnecessary personnel

Follow protective measures provided under personal protection in section 8

SECTION 7

HANDLING AND STORAGE

Handling :

Do not get in eyes, on skin or clothing

Avoid breathing airborne particulates, wear respiratory protection when exposure is possible

Wash contaminated clothing before reuse

SPECIAL MIXING AND HANDLING INSTRUCTIONS

Do not allow contact with materials noted in section 10

Contact with acids will cause gelling and the evolution of heat

Storage :

Keep container tightly closed and properly label

Do not store in aluminum container or use aluminum fittings or transfer lines, as flammable hydrogen gas can be generated

SECTION 8

EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING MEASURES :

Ventilation should be adequate to remove any mist or spray that might be generated.

PERSONAL PROTECTIVE EQUIPMENT :

RESPIRATORY PROTECTION :

Chemical cartridge respirator for an organic vapor, or pressure selfcontained breathing apparatus.

HAND PROTECTION :

Chemical resistant gloves

EYE PROTECTION :

Wear safety glasses with side shields or goggles and a full face shield.

SKIN, AND BODY PROTECTION :

Suitable safety clothes and shoes

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

Color : Colorless

Odor : None

pH : moderate

Boiling Point : 101 – 102 C

freezing Point : -1 C

Vapour Density (Air = 1) : Not Applicable

Vapour Pressure (mmHg) : Not Applicable

SECTION 10
STABILITY & REACTIVITY

Stability :

Stable under ordinary conditions of use and storage

Hazardous Decomposition Products :

none

Hazardous Polymerization :

Will not occur

Comments

Contact with acids will cause gelling and the evolution of heat.

Prolonged contact with aluminum may produce flammable hydrogen gas

SECTION 11
TOXICOLOGICAL INFORMATION

Local Effect :

Skin irritation : rabbit = 500 mg/24H

Eye irritation : rabbit = 10 mg/24H

Cancer List :

INGREDIENT	CAS NO.	NTP CARCINOGEN KNOWN	NTP CARCINOGEN ANTICIPATED	IARC
Sodium Silicates	1344-09-8	NO	NO	NONE
Water	7732-18-5	NO	NO	NONE

SECTION 12
ECOLOGICAL INFORMATION

Environmental Persistence:

This material is believed to be likely to persist in the environment. This substance is inorganic and not subject to biodegradation

Environmental Toxicity:

This material is believed to be non-toxic to aquatic life.

SECTION 13 **DISPOSAL CONSIDERATION**

Dispose of all waste and contaminated equipment in accordance with federal, state and local requirements

SECTION 14 **TRANSPORT INFORMATION**

The UN classification number

[UNRTDG]

Proper shipping name : Sodium Silicates

UN class : 8

UN number : 1719

Specific precautionary transport measure and condition :

Avoid falling, dropping, shocking and dragging a container.

Protect a container from direct sunlight.

Secure the grounding of the vehicle to avoid static electrification before starting the liquid transfer. After discharging the product from a tank lorry, the remnant liquid in piping must be completely eliminate

Comments

Each lorry will be loaded with a container of 50 tons and the lorry will deliver our product from the factory camp to the target basis

SECTION 15 **REGULATORY INFORMATION**

EU STATUS :

EINECS : Listed (no. 205-438-8)

Classification & Labeling (67/548/EEC) :

[CLASSIFICATION] :

R20/21/22 – Harmful by inhalation, in contact with skin and if inhaled

R35 - Causes severe burns

R36/37/38 - Irritating to eyes, respiratory systems and skin.

S2 - Keep out of the reach of children.

S7 - Keep container in tightly closed

S36/37 - Wear suitable protective clothing and gloves

SECTION 16
OTHER INFORMATION

REFERENCES :

- 1) Guidebook for GHS Classification and Labelling, March, 2008
- 2) Purple Book Rev 2, 2007
- 3) UNRTDG Orange Books 14th edition

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