

Material Safety data sheet

Section one

Chemical product and company identification

Product name	Sodium silicate alkaline powder
Manufacturer	Al Amreya for chemicals and detergents
Main usage	Oil mining and production of ceramics
Address	Borg el arab second zone – block 28
e-mail	kemak_0@yahoo.com
mobile	01287025230

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

Sharp Edges will cut skin

Large dust particles may scrape eye surface

Causes skin irritation and eye irritaton

A strong alkaline irritant causes severe irritation to eyes, skin and respiratory tract

May cause respiratory irritation

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

PRECAUTIONARY STATEMENTS

Obtain special treatment before use.

Avoid walking in material when mixed with water, can become very slippery

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 / INFORMATION ON INGREDIENTS**

CHEMICAL NAME : Sodium Silicates

SYNONYMS : Water glass, Soluble Glass, Silicate of Soda,
Egg Preserver, Silicic acid

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

Sodium oxide	Na ₂ O	% : 30%
Silicon dioxide	SiO ₂	55% : 65%
Total solid content		More than 95%
Ratio	SiO ₂ : Na ₂ O	2.8 ± 2.9

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

Small Spill :

Shovel or scoop up and dispose of in an approved sanitary landfill.

Large Spill :

Dispose of in an approved sanitary landfill. Observe all federal, state and local laws.

SECTION 7

HANDLING AND STORAGE

Handling :

Material like glass with very sharp edges that can cause cuts and abrasions, should be handled with gloves or other skin protection. Avoid walking in material when mixed with water, can be very slippery.

Storage :

No restrictions

Storage Pressure :

Atmospheric

SECTION 8

EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING MEASURES :

Facilities storing or utilizing this substance should be equipped with an eyewash facility and a safety shower. Use process enclosures, local exhaust ventilation, or other engineering controls. Ventilation should be adequate to remove any dust that is generated. No vapors are generated.

CONTROL PARAMETERS :

CHEMICAL NAME CAS RN ACGIH
(1995-1996)

OSHA (1995) % 100.0
(by wt)

Sodium Silicates 1344-09-8 TWA 80 mg/m³/ (%SiO₂) 35 - 40 %

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 : Solid

Color : Colorless to yellowish to bluish solid lumps or pieces with sharp edges

Odor : None

pH : 11.3 – 11.7

Solubility in water : Complete 100 %

Specific Gravity : \pm 2.3

Boiling Point : Not Applicable

Melting Point : 700 0C (1300 0F)

Vapour Density (Air = 1) : Not Applicable

Vapour Pressure (mmHg) : Not Applicable

Evaporation Rate (BuAc = 1) : No information found

SECTION 10

STABILITY & REACTIVITY

Stability :

Stable under ordinary conditions of use and storage

Hazardous Decomposition Products :

No information found

Hazardous Polymerization :

Will not occur

Incompatibilities :

This product is alkaline, avoid contact with acidic material, some heat will be generated on contact with acid.

Conditions to Avoid :

Incompatibles.

SECTION 11
TOXICOLOGICAL INFORMATION

Acute Toxicity :

Oral	rat	LD50	1960 mg/kg
	mouse	LD50	1100 mg/kg
Dermal	rabbit	LD50	4640 mg/kg

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 Fate :

As the alkalinity of this product is reduced, most of the silica precipitates from solution as silica gel. The solubility of silica is sufficient to allow as eventual transport by ground water.

Environmental Toxicity :

Fish	Lepomis Macrochirus	LC50	301 - 478 mg/L (96Hr)
	Brachydanio Rerio	LC50	3185 mg/L (96Hr)
Crustacea	Daphnia Magna	LC50	216 mg/L (96Hr)

SECTION 13
DISPOSAL CONSIDERATION

Dispose of container and unused content in accordance with federal, state and local requirements.

Cannot be saved for recovery or recycling should be managed in appropriate and approved waste disposal facility.

Processing, use or contamination of this product may change the waste management options.

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.

SECTION 15

PACKAGE DETAILS

For lumps

The lumps will be packed in jumbo packs containing one ton in each jumbo pack.

Jumbo pack size:

Length: 1 meter width: 1 meter height: 0.65 meter

For powder

The powder will be packed in 25 kg kraft-paper bags

SECTION 16

REGULATORY INFORMATION

EU STATUS :
EINECS : Listed (no. 205-438-8)
Classification & Labeling (67/548/EEC) :
[CLASSIFICATION] :
Xn : R20/21/22
Xi : R35/36/37/38
[LABELING]
[F, Xn]
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 17
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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