

PT. MAHKOTA INDONESIA



Office & Factory : Jalan Raya Bekasi Km. 21 Pulogadung - Jakarta Utara 14250, Indonesia
Telephone : 6221 - 4603121 (Hunting) Faximile : 6221 - 4602792
Website: www.mahkotaindonesia.co.id

Manufacturing of Sulphuric Acid, Aluminium Sulphate, Oleum, Sodium Silicate, Sulphur Block, etc.



CERTIFICATE NO. 402987

M S D S No. 004 – MI – 2008 (SDS Sodium Silicates)

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DATE PREPARED : April 6th, 2008

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

- **PRODUCT NAME** : **SODIUM SILICATES LIQUID**
- **COMPANY NAME** : **PT. MAHKOTA INDONESIA**
- **ADDRESS** : **Jl. Raya Bekasi Km.21. Pulogadung.
Jakarta Utara. 14250**
- **TEL NO.** : **62-21-4603121 (Hunting)**
- **FAX NO.** : **62-21-4602792**
- **EMERGENCY TEL NO.** : **62-21-4603121 (Hunting)**

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 (Repeated Exposure) : Category 2 (Health Hazard, Warning)

GHS LABEL ELEMENT



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HAZARD STATEMENTS

Human Effect :

- Harmful if swallowed or inhaled
- Harmful if contact with skin
- Causes skin irritation
- A strong alkaline irritant causes severe irritation to eyes, skin and respiratory tract
- May cause an allergic or breathing difficult if inhaled
- 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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

- CHEMICAL NAME : Sodium Silicates
- SYNONYMS : Water glass, Soluble Glass, Silicate of Soda, Egg Preserver, Silicic acid
- CHEMICAL FORMULA : $\text{Na}_2\text{O}(\text{SiO}_2)_x \cdot (\text{H}_2\text{O})_x$

Ingredient	CAS No.	Percent
Sodium Silicates	1344-09-8	35 - 40 %
Water	7732-18-5	60 – 65 %

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4. FIRST-AID MEASURE

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

5. FIRE-FIGHTING MEASURES

- **Fire** :
Not considered to be a fire hazard.
- **Explosion** :
Not considered to be an explosion hazard.
- **Fire Extinguishing Media** :
Use any means suitable for extinguishing surrounding fire.
- **Special Information** :
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode

6. ACCIDENTAL RELEASE MEASURES

- **Personal Precaution** :
Caution! Floor and other surfaces may be slippery. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified.
- **Methods for Cleaning Up** :
Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

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7. HANDLING AND STORAGE

• Handling :

Protect against physical damage. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

• Storage :

Keep in a tightly closed container, stored in a cool, dry, ventilated area.

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 others engineering controls.

• CONTROL PARAMETERS :

CHEMICAL NAME	CAS RN	ACGIH (1995-1996)	OSHA (1995)	% 100.0 (by wt)
Sodium Silicates	1344-09-8	TWA	80 mg/m ³ / (%SiO ₂)	35 - 40 %

• PERSONAL PROTECTIVE EQUIPMENT :

RESPIRATORY PROTECTION :

Chemical cartridge respirator for an organic vapor, or pressure self-contained 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

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9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Clear to cloudy, viscous liquid
- Odor : Odorless
- pH : 11 – 12.5
- Solubility in water : Complete 100 %
- Specific Gravity : 1.3 - 1.5
- % Volatilities @ 21 °C : ca. 70
- Boiling Point : 102 °C (216 °F)
- Melting Point : No information found
- Vapour Density (Air = 1) : Not Applicable
- Vapour Pressure (mmHg) : 18 @ 20 °C (68 °F)
- Evaporation Rate (BuAc = 1) : No information found

10. STABILITY & REACTIVITY

- **Stability** :
Stable under ordinary conditions of use and storage
- **Hazardous Decomposition Products** :
No information found
- **Hazardous Polymerization** :
Will not occur
- **Incompatibilities** :
Fluorine, mineral acids, organic acids, organic materials. May produce hydrogen gas on prolonged contact with metals. Gels when mixed with acids. Solution is a strong base; reacts with acids, organic anhydrides, alkylene oxides, epichlorohydrin, aldehydes, alcohols, glycols, phenols, cresols, caprolactam solution. Attacks chemically active metals.
- **Conditions to Avoid** :
Incompatibles.

11. TOXICOLOGICAL INFORMATION

• Acute Toxicity :

Oral	rat	LD ₅₀	1960 mg/kg
	mouse	LD ₅₀	1100 mg/kg
Dermal	rabbit	LD ₅₀	4640 mg/kg

• Local Effect :

Skin irritation	:	rabbit = 500 mg/24H
Eye irritation	:	rabbit = 10 mg/24H

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• 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

12. ECOLOGICAL INFORMATION

• Environmental Fate :

No information found

• Environmental Toxicity :

Fish	Lepomis Macrochirus	LC ₅₀	301 - 478 mg/L (96Hr)
	Brachydanio Rerio	LC ₅₀	3185 mg/L (96Hr)
Crustacea	Daphnia Magna	LC ₅₀	216 mg/L (96Hr)

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.

14. TRANSPORT INFORMATION

- The UN classification number
[UNRTDG]
Proper shipping name : Sodium Silicates
UN class : Not Regulated
UN number : Not Regulated
- 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.
- Any transportation practice must be in compliance with laws and regulation in your country or region.

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15. 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

16. OTHER INFORMATION

- REFERENCES :
 - 1) Data generated by PT. Mahkota Indonesia
 - 2) Guidebook for GHS Classification and Labelling, March, 2008
 - 3) Purple Book Rev2, 2007
 - 4) UNRTDG Orange Books 14th edition
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