

# 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. 005 – MI – 2008 (SDS Sodium Silicates)

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DATE PREPARED : April 6<sup>th</sup>, 2008

## SAFETY DATA SHEET

### 1. PRODUCT & COMPANY IDENTIFICATION

- **PRODUCT NAME** : **SODIUM SILICATES SOLID (CULLET)**
- **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
- 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.

## **3. COMPOSITION / INFORMATION ON INGREDIENTS**

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

<b>Ingredient</b>	<b>CAS No.</b>	<b>Percent WT</b>
Sodium Silicates	1344-09-8	100 %

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## 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.

## 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 ).

## 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.

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## 7. HANDLING AND STORAGE

- **Handling** :  
Material like glass with very sharp edges that can causes 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

## 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. 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/m <sup>3</sup> / (%SiO <sub>2</sub> )	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 : 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 °C (1300 °F)
- Vapour Density ( Air = 1 ) : Not Applicable
- Vapour Pressure (mmHg) : Not Applicable
- 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** :  
This product is alkaline, avoid contact with acidic material, some heat will be generated on contact with acid.
- **Conditions to Avoid** :  
Incompatibles.

## 11. TOXICOLOGICAL INFORMATION

### • Acute Toxicity :

Oral	rat	LD <sub>50</sub>	1960 mg/kg
	mouse	LD <sub>50</sub>	1100 mg/kg
Dermal	rabbit	LD <sub>50</sub>	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 :

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 an eventual transport by ground water.

### • Environmental Toxicity :

Fish	Lepomis Macrochirus	LC <sub>50</sub>	301 - 478 mg/L (96Hr)
	Brachydanio Rerio	LC <sub>50</sub>	3185 mg/L (96Hr)
Crustacea	Daphnia Magna	LC <sub>50</sub>	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 eliminated.

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- Any transportation practice must be in compliance with laws and regulation in your country or region.

## 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 Rev 2, 2007
  - 4) UNRTDG Orange Books 14<sup>th</sup> edition
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