



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. 009– MI – 2009 (SDS Sulphur)

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DATE PREPARED : April 5th, 2009

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

- **PRODUCT** : **Sulfur**
- **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

HAZARD STATEMENT

- Sulphur dust suspended in air ignities easily
- Can cause an explosion in confined areas
- May be ignited by friction, static electricity, heat, sparks or flames
- Toxic gases will form upon combustion
- Bulk/solid forms burn only at moderate rate
- Harmful if swallowed or inhaled

PRECAUTIONARY STATEMENT

- Avoid contact with skin and eyes
- Do not inhale vapour or spray
- Do not ingest
- Wear respiratory protection, protective glove/clothing/face protection as specified by manufacturer/supplier or the competent authority
- Wear eye protection (chemical goggles)
- 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.
- This substance may be hazardous to the environment, special attention should be given to fish

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2. COMPOSITION / INFORMATION ON INGREDIENTS

- CHEMICAL NAME : Sulphuric
- SYNONYMS : sulphur, brimstone, flour sulfur, flowers of sulfur, precipitated sulfur, sublimed sulfur, bensulfoïd, flowers of sulphur, precipitated sulphur, agri-sul, asulfa-supra, collokit, colsul, cosan, crystex, devisulphur, elosal, gofrativ, hexasul, kolofog, kolospray, kristex, kulumus, microwetsulf, sofril, sperlox-S, spersul, sufran, sulfex, sulfidal, sulforon, sulkol, sulsol, tesuloid, thiolux, thiovit, thiozol, wettasul
- CHEMICAL FORMULA : S

| Ingredient | CAS No. | Percent WT |
|------------|-------------|------------|
| Sulphur | 7704– 34 -9 | Min 99 % |

3. FIRST-AID MEASURE

- **Inhalation** :
Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and suitable mechanical devicesuch as bag and a mask.
- **Ingestion** :
Do not induce vomiting. If victim conscious and alert, give 2 – 4 cupfull of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
- **Skin Contact** :
If skin or hair contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
- **Eye Contact** :
Get medical aid immediately. Do not allow victim to rub or keep eyes closed. Extensive irritation with water is required (at least 30 minutes).

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4. FIRE-FIGTHING MEASURES

- **Fire and explosion Hazard** :
Avoid any condition that might tend to create dust explosion. Be careful not to create a dust. Maintain good housekeeping practices to minimize dust build-up and dispersion. Eliminate source of ignition. Keep away from heat, sparks and flames. Use non ferrous tools to reduce sparking.
- **Fire Fighting Advice** :
Wear self contained breathing apparatus if fumes or mist are present.
- **Suitable Extinguishing Media** :
Water fog, spray or regular foam,. Do not use direct water stream.

5. ACCIDENTAL RELEASE MEASURES

- **Personal Precautions** :
Wear protective equipment to prevent skin, eye contact and respiratory equipment.
- **Methods for cleaning up** :
Avoid runn off into storm sewers and ditches which lead to waterways. Clean up spill immediately., observing precautions in the protective equipment section. Provide ventilation. Use waterways to reduce, do not put water directly on leak, spill area or inside container.

6. HANDLING AND STORAGE

- **Handling** :
Avoid skin and eye contact and breathing. Keep from contact with moist air and steam
- **Storage Color Code** :
-
- **Storage Advice** :
Containers should be stored in a cool, dry, well ventilated area. Keep container tightly closed. Store away from flammable materials, source of heat, flame and sparks. Separate from chlorates, nitrates and other oxidizing agents. Exercise due caution to prevent damage to or leakage from container.

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7. EXPOSURE CONTROL/PERSONAL PROTECTION

• ENGINEERING MEASURES :

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

• CONTROL PARAMETERS :

| CHEMICAL NAME | CAS RN | OSHA (1995) | % 100.0 (by wt) |
|---------------|-----------|---|--------------------|
| Sulphur | 7704-34-9 | This product does not contain any ingredient designated by OSHA | Min 99 % |

• PERSONAL PROTECTIVE EQUIPMENT :

RESPIRATORY PROTECTION :

Avoid generating and inhaling always wear respirator when necessary.

HAND PROTECTION :

Chemical resistant gloves

EYE PROTECTION :

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

SKIN, AND BODY PROTECTION :

Suitable safety clothes and shoes

8. PHYSICAL AND CHEMICAL PROPERTIES

- Form : Solid
- Color : yellow
- Odor : Odorless or faint odor of rotten eggs
- Solubility in water : Insoluble
- Specific Gravity : $\pm 2.07 @ 70^{\circ}\text{C}$
- Boiling Point : 444°C
- Melting Point : $\pm 110 - 119^{\circ}\text{C}$

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9. STABILITY & REACTIVITY

- **Chemical Stability** :
stable
- **Hazardous Decomposition Products** :
Oxides of Sulfur gasses produced by burning Sulfur
- **Conditions to Avoid** :
Oxides agent, may react violently. Corrosive to copper and copper alloys.
Damp sulfur will corrode steel.

10. TOXICOLOGICAL INFORMATION

• Acute Toxicity :

| | | | | |
|------------|------|------------------|----------|------------------------|
| Oral | rats | LD ₅₀ | : > 5050 | mg/kg |
| Dermal | rats | LD ₅₀ | : > 2020 | mg/kg (Draize test) |
| Inhalation | rats | LC ₅₀ | : > 5.49 | mg/l air concentration |

• Cancer List :

| INGREDIENT | CAS NO. | NTP CARCINOGEN KNOWN | NTP CARCINOGEN ANTICIPATED | IARC |
|------------|-----------|----------------------------|----------------------------------|------|
| Sulfur | 7704-34-9 | No | No | - |

11. ECOLOGICAL INFORMATION

- **Environmental Fate** :
Avoid contaminating waterways.

12. DISPOSAL CONSIDERATION

- **Spill/ Leak Procedures** :
Spill procedures are dictated by site Refer to water waste Management Authority.
- **Large and small spill** :
No flares or flames in area. No smoking. Danger of dust explosion near sparks.
Sweep or shovel up spilled material using natural fiber broom and/or aluminium shovel to prevent sparking.



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13. TRANSPORT INFORMATION

- **The UN classification number** :
[UNRTDG]
Proper shipping name : Sulphur
Hazard Class : None Required
Packing Group : None Required
ID Number : None Required
- **Air Transport** :
Not classified as Dangerous Goods by the criteria of International Air Transport Association (IATA) Dangerous Regulations for transport by air
- Any transportation practice must be in compliance with laws and regulation in your country or region.

14. REGULATORY INFORMATION

- **EU STATUS** :
EINECS : Listed (no. 205-438-8)
Classification & Labeling (67/548/EEC) :
[CLASSIFICATION] :
Xn : R20/21/22
Xi : R35/36/37/38/39
Xf : R48/49/52

[LABELING]
[F, Xn]
R20/21/22 – Harmful by inhalation, in contact with skin and if inhaled

R36/37/38 - Irritating to eyes, respiratory systems and skin.
S2 - Keep out of the reach of children.
S7 - Keep container in tightly closed
S30 - Never add water to this product
S36/37/39 - Wear suitable protective clothing, gloves and eye protecting

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15. 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 14th edition
 - 5) Dangerous Properties of Material 6th edition, N. Irving Sach, March 1987
 - 6) Hazardous Material in Industry 12th edition
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