

# MSDS OF LAYERED SODIUM SILICATE

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## 1. Chemical product and corporate identification

Name: LAYERED SODIUM METASILICATE

Produced by: TianJin Credit International Co., Ltd.

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## 2. Ingredients

Major ingredients	CAS No.	Content (%)
Sodium carbonate	497-19-8	15-25
Sodium hydroxide	1310-73-2	10-20
Sodium silicate	6834-92-0	60-70

## 3. Profile of hazards

Category of hazards

Channel of contacts: inhalation, digestion, eye and skin absorption

Eye contact: able to cause serious irritation, causing conjunctivitis and mechanical damages

Inhalation: when powder or smoke is inhaled, irritation to upper respiratory tract can be caused

Accidental digestion: may cause irritation to gastrointestinal tract, leading to nausea and vomiting.

Skin: may irritate the skin

## 4. First-aid

Eye: remove the contaminated clothes and rinse with sufficient water for 15 minutes.

Seek immediate medical assistance.

Skin: rinse with sufficient water. Seek medical assistance if irritated feeling persists.

Inhalation: move the patient to a place with good ventilation and keep warm. If respiration halts, give artificial respiration ASAP. If there's difficulty in respiration, supply oxygen. Seek immediate medical assistance.

## 5. Firefighting measurements

Property of the hazardous substance: non-flammable, able to react with acids  
Extinguishing approaches: adopt extinguishers suitable for the ambient materials  
Harmful combustion product: possible to decompose and produce toxic smoke

#### 6. Emergency treatment upon leakage

Isolate the contaminated area and restrict entry. It is strongly recommended that the emergency handling persons shall wear masks (whole masks), wear protective jumpers. For small leakage: avoid dust, use clean shovels to collect it into containers that are dry, clean with lids. As an option, use large amount of water to rinse. The used water must be first diluted before allowed to be drained into the wastewater system. For large leakage: recycle or deliver it to a waste disposal entity.

#### 7. Operation, disposal and storage

Operate sealed. The operators must wear appropriate respiration equipment, wear protective garments and gloves. Dust shall be avoided. Avoid contact with acids. When handling, handle with care. Damages to the packaging and containers shall be avoided.

The product shall be kept in a warehouse that is cool and dry with good ventilation. It shall also be kept away from fire and must not be affected by moisture. It shall be kept away from acids. There shall be appropriate materials to contain the accidental leakage in the warehouse.

#### 8. Contact control/personal protection

Limit value at working area

China

Sodium carbonate: TWA 3 mg/m<sup>3</sup>; STEL 6 mg/m<sup>3</sup>

Engineering control: sealed operation. Safe showering and eye washing equipment shall be available.

Protection to respiratory system: anti-dust masks shall be worn.

Protection to skin: wear gloves, boots, aprons, sleeve shields or protective garments.

Protection to eyes: goggles and masks shall be worn.

Others: sprayer and eye washers shall be available at the working area.

#### 9. Physical and chemical property

Appearance and property: white

powder Melting point (C): no data

Boiling point (C): no data

Relative density (water= 1): approx. 0.4

Saturated steam pressure (kPa): no data

Water solubility: greater than 15g/ 100mol

#### 10. Stability and activeness

Stability: stable

Polymerizing hazards: none

Substances to avoid contact of: moisture air, strong acids, carbon dioxide

Prohibited substances: strong acids, carbon dioxide

#### 11. Toxicological references

carbonate: mouse oral LD50: 5899mg/kg

Sodium hydroxide: rat oral LD50: 4090 mg/kg; inhalation LC50: 2300 mg/m<sup>3</sup>/2H

Sodium silicate: rat oral LD50: 1153 mg/kg

#### 12. Environmental & ecological reference No data

#### 13. Waste disposal

Consult local environmental protection authorities

#### 14. Transportation information

TDGR: not regulated CFR 49: Not regulated IMO: Not regulated ICAO: not regulated

IMDG: not regulated

#### 15. Information on regulations

Relevant regulations	Constituents
National Environment Protection General Bureau: List of chemicals currently existent in China	Listed
National Security Supervision Bureau: List of highly toxic substances (version 2002)	Not listed
National Security Supervision Bureau: List of highly hazardous chemicals (version 2002)	Not listed
Identification of major hazardous sources (GB18218-2000)	Not listed
National Environment Protection General Bureau: List of the country's hazardous wastes (1998)	Not listed
Sanitary ministry: List of highly toxic substances (version 2003)	Not listed

#### 16. Other information

This MSDS provides the currently available information when the product is used under normal condition. It is provided only for reference and is NOT the specification of the said product and no guaranty is made thereto. Users are advised to conduct an appraisal on the applicability of the product in various applications.

Composed by: Shanghai Research Institute of Chemical Industry Testing Centre