

# MATERIAL SAFETY DATA SHEET

## Sodium Silicate

### **Section 01 - Chemical And Product And Company Information**

Product Identifier ..... Sodium Silicate ( $\text{Na}_2\text{SiO}_3$ )  
Product Use ..... Industrial applications such as adhesive, binder, pulp & paper, water treatment, catalysts and gels; Welding etc.  
Supplier Name..... Baoding Runfeng industrial Co.,Ltd.  
LIUDONGYING XUSHUI BAODING CHINA  
Tel: 0086-312-8505366  
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### **Section 02 - Composition / Information on Ingredients**

Hazardous Ingredients..... Sodium Silicate 99%  
CAS Number..... Sodium Silicate 1344-09-8  
Synonym (s)..... Silicate of Soda

### **Section 03 - Hazard Identification**

Inhalation..... Inhalation can cause severe irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High concentrations may cause lung damage.  
Skin Contact / Absorption..... Contact with skin causes server irritation such as redness, itching, blistering, burns and pain.  
Eye Contact..... Alkaline eye exposures produce severe irritation with effects similar to those of dilute caustics. Inflammation or burns with possible damage to the eye tissues can occur together with tearing and considerable pain.  
Ingestion..... Ingesting product causes irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

### **Section 04 - First Aid Measures**

Inhalation..... Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.  
Skin Contact / Absorption..... Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.

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| Eye Contact..... | Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate 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.  |

**Section 05 - Fire Fighting**

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| Conditions of Flammability.....       | Non-flammable   |
| Means of Extinction.....              | Use extinguishing media appropriate for surrounding fire.   |
| Hazardous Combustible Products....    | Flammable hydrogen gas may be produced on prolonged contact with metals such as aluminum, tin, lead and zinc. |
| Special Fire Fighting Procedures..... | Wear NIOSH-approved self-contained breathing apparatus and protective clothing.                               |

**Section 06 - Accidental Release Measures**

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| Leak / Spill..... | Wear appropriate personal protective equipment if required. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue. |
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**Small spill:** Absorb with an inert material and place in an appropriate waste disposal container. Finish cleaning the spill area with running water.

**Large spill:** Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Prevent entry into sewers, basements or confined areas; dike if needed. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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| Deactivating Materials..... | Residue can be neutralized with a dilute solution of acetic acid. |
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**Section 07 - Handling and Storage**

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| Handling Procedures..... | Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. |
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| Storage Requirements..... | Keep container tightly closed. Keep container in cool, well-ventilated area. Store in clean steel plastic containers. Separate from acids, oxidizers, reactive metals and ammonium salts. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers. |
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## **Section 08 - Personal Protection and Exposure Controls**

### Protective Equipment

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| Eyes.....        | Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury. |
| Respiratory..... | A NIOSH/MSHA respirator with organic vapor cartridge should be used.   |
| Gloves.....      | Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.                                    |
| Clothing.....    | Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.                                   |
| Footwear.....    | Impervious boots of chemically resistant material should be worn.  |

### Engineering Controls

|                               |   |
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| Ventilation Requirements..... | Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems. |
| Other.....                    | Emergency shower and eyewash should be in close proximity.  |

## **Section 9: Physical and Chemical Properties**

Physical state and appearance: Solid and Lump shape

Odor: Odorless.

Color: Light green to light blue

pH (1% soln/water): Basic.

Boiling Point: The lowest known value is 100°C (212°F) (Water).

Specific Gravity: Weighted average: 1.15 (Water = 1)

Vapor Pressure: The highest known value is 17.535 mm of Hg (@ 20°C) (Water).

Vapor Density: The highest known value is 0.62 (Air = 1) (Water).

Dispersion Properties: See solubility in water, methanol, diethyl ether.

Solubility:

Easily soluble in cold water, hot water.

Partially soluble in methanol, diethyl ether.

## **Section 10: Stability and Reactivity Data**

Stability: The product is stable.

Incompatibility with various substances:

Highly reactive with acids. Reactive with oxidizing agents.

### ***Section 11: Toxicological Information***

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

LD50: Not available.  
LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Extremely hazardous in case of skin contact (corrosive, irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

### ***Section 12: Ecological Information***

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are as toxic as the original product.

Special Remarks on the Products of Biodegradation: Not available.

### ***Section 13: Disposal Considerations***

Waste Disposal: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

### ***Section 14: Transport Information***

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

### ***Section 15: Other Regulatory Information***

Federal and State Regulations: TSCA 8(b) inventory: Sodium silicate; Water

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): R35- Causes severe burns.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection:

National Fire Protection Association (U.S.A.)

Health: 3

Flammability: 0

Reactivity: 0

Protective Equipment:

Gloves.

Full suit.

Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

### ***Section 16: Other Information***

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.