


Material Safety Data Sheet

Sodium Metasilicate Pentahydrate

Section 1. Chemical Product and Company Identification		Page Number: 1	
Trade Name:	Sodium metasilicate, pentahydrate	Product Serial #:	SMS-1-01
Synonym:	Disodium metasilicate pentahydrate; Disodium trioxosilicate pentahydrate.	CAS #:	10213-79-3
Chemical Name:	Sodium metasilicate, pentahydrate	UN #:	3253
Chemical Formula:	Na ₂ SiO ₃ ·5H ₂ O	Packaging Group:	III
Molecular Weight:	212.14	EMERGENCY CALL <u>+86-22-23528561</u>	
Chemical Family:	Silicates.		
Supplier Information:	Tianjin BRG Products Co., Ltd. Address: Suite 604, Kangning Tower B, Xikang Ave., Heping Dist., Tianjin, 300070 Tel #: +86-22-23528561 Fax #: +86-22-23523959 Website: www.brgproduct.com		

2. Hazards Identification	
Pictogram	
Signal word:	Danger
Hazard statements	<p>H314: Causes severe skin burns and eye damage.</p> <p>H290: May be corrosive to metals.</p> <p>H318: Causes serious eye damage.</p> <p>H402: Harmful to aquatic life.</p> <p>These Hazard statements will vary based on the concentration and nature of each chemical</p>
Precautionary statement(s)	
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Prevention	Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection, and face protection.
Response	<p>If swallowed: Rinse mouth. Do NOT induce vomiting.</p> <p>If on Skin (or hair): Remove immediately all contaminated clothing. Rinse skin with water.</p> <p>If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.</p> <p>Wash contaminated clothing before reuse.</p>
Storage	Store locked up.
Disposal:	Dispose of contents and container in accordance with government regulations.
Hazard(s) not otherwise classified (HNOC)	None known
Supplemental information	None

Section 3. Composition and Information on Ingredients				
Ingredients Name	CAS Number	TWA(mg/m³)	CEIL(mg/m³)	% By Weight or Volume
Sodium Metasilicate Pentahydrate	10213-79-3			100

Section 4. First Aid Measures	
Eye Contact:	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact:	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Serious Inhalation:	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
Serious Ingestion:	Not available.

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Section 5. Fire and Explosion Data

Flammability of the Product:	Non-flammable.
Auto-Ignition Temperature:	Not applicable.
Flash Points:	Not applicable.
Flammable Limits:	Not applicable.
Products of Combustion:	Not applicable.
Fire Hazards in Presence of Various Substances:	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available.
	Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions:	Not applicable
Special Remarks on Fire Hazards	Sodium metasilicate ignites in Fluorine.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

Small Spill:	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.
Large Spill:	Corrosive solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid.

Section 7. Handling and Storage

Precautions:	Keep container dry. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles such as metals, acids.
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection:	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill:	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits:	Not available.

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Section 9. Physical and Chemical Properties

Physical state and appearance:	Solid.
Odor:	Odorless.
Taste:	Not available.
Color:	White.
Molecular Weight:	212.14 g/mole
pH (1% soln/water):	12.6 (1% soln)
Boiling Point:	Not available.
Melting Point:	72.2°C(162°F)
Critical Temperature:	Not available.
Specific Gravity:	Not available.
Vapor Pressure:	Not applicable.
Vapor Density:	Not available.
Volatility:	Not available.
Odor Threshold:	Not available.
Water/Oil Dist. Coeff.:	Not available.
Ionicity (in Water):	Not available.
Dispersion Properties:	See solubility in water.
Solubility:	Easily soluble in cold water, hot water. Soluble in dilute Sodium Hydroxide. Insoluble in alcohol, acids.

Section 10. Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Incompatible materials.
Incompatibility with various substances	Reactive with metals, acids.
Corrosivity:	Not available.
Special Remarks on Reactivity	Solutions sodium metasilicate, when heated and acidified, are hydrolyzed to free sodium and silicic acid.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information


Routes of Entry:	Eye contact. Inhalation. Ingestion.
Toxicity to Animals:	Oral, rat: LD50 = 847 mg/kg LC ₅₀ : Not available.
Chronic Effects on Humans:	May cause damage to the following organs: mucous membranes, skin, eyes.
Other Toxic Effects on Humans:	Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of inhalation. Slightly hazardous in case of skin contact (corrosive).

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Special Remarks on Toxicity to Animals:	Not available.	
Special Remarks on Chronic Effects on Humans:	Not available.	
Special Remarks on other Toxic Effects on Humans:	Acute Potential Health Effects: Corrosive! Skin: Causes severe irritation or burns depending on length and amount of exposure. Eyes: Causes eye burns. May cause chemical conjunctivitis and corneal damage. Inhalation: Causes chemical burns to the respiratory tract. Ingestion: Maybe harmful if swallowed. Causes nausea vomiting, gastrointestinal tract ulceration or bleeding (bleeding from the stomach, duodenum, small intestine), burns. May affect kidneys (renal failure, acute tubular necrosis, hematuria), respiration. Chronic Potential Health Effects: Skin: Repeated or prolonged skin contact can cause ulcerative allergic contact dermatitis.	

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 product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation:	Not available.

Section 13. Disposal Considerations	
Waste Disposal:	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14. Transport Information	
Shipping Name:	Disodium Trioxosilicate.
DOT Classification:	Class 8: Corrosive material.
Identification	Disodium trioxosilicate UN NO: 3253 PG: III.
Special Provisions for Transport	Passenger Aircraft / Railcar (Maximum Quantity): 25kg. Cargo Aircraft (Maximum Quantity): 100kg.
DOT (Pictograms)	

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Section 15. Regulatory Information

Other Regulations:	OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.	
Other Classifications:	WHMIS (Canada) CLASS	E: Corrosive solid.
	DSCL (EEC)	R34-Causes burns. S13-Keep away from food, drink and animal feeding stuffs. S24/25-Avoid contact with skin and eyes. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S45-In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard	3
Fire Hazard	0
Reactivity	0
Personal Protection	0

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

Health: 3, Flammability: 0, Reactivity: 0, Specific hazard: 0



WHMIS (Canada)(Pictograms):







DSCL (Europe)(Pictograms):



ADR (Europe)(Pictograms):



Protective Equipment:

	Gloves.
	Synthetic apron.
	Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
	Splash goggles.

Section 16. Other Information**Prepared By***Philip Peng , 2015-4-21***Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Tianjin BRG Products Co., Ltd., assumes no responsibility for the completeness or accuracy of the information contained herein.

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