

## Sodium Metasilicate Pentahydrate

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	Sodium Metasilicate Pentahydrate
<b>Other Means of Identification</b>	Sodium silicate
<b>Product Code(s)</b>	SO4110
<b>Product Family</b>	Inorganic Solid
<b>Recommended Use</b>	Laboratory and industrial use.
<b>Restrictions on Use</b>	None known.
<b>Supplier Identifier</b>	Alphachem Limited, 2485 Milltower Court, Mississauga, Ontario, L5N 5Z6, (905) 821-2995
<b>Emergency Phone No.</b>	CANUTEC CANADA, 613-996-6666, 24 Hours
<b>SDS No.</b>	1045

### SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

#### Classification

Skin corrosion - Category 1B; Serious eye damage - Category 1; Specific target organ toxicity (single exposure) - Category 3

#### Label Elements



Signal Word:  
Danger

#### Hazard Statement(s):

Causes severe skin burns and eye damage.  
May cause respiratory irritation.

#### Precautionary Statement(s):

Do not breathe dusts or mists.  
Use only outdoors or in a well-ventilated area.  
Wash hands and skin thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.

#### Response:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN: Wash with plenty of water.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

#### **Other Hazards**

None known.

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

Mixture:

<b>Chemical Name</b>	<b>CAS No.</b>	<b>%</b>	<b>Other Identifiers</b>	<b>Other Names</b>
Sodium Metasilicate	6834-92-0	58	Anhydrous sodium metasilicate	
Water	7732-18-5	42	Dihydrogen oxide	

#### **Notes**

Above concentrations are in weight %.

### **SECTION 4. FIRST-AID MEASURES**

#### **First-aid Measures**

##### **Inhalation**

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor.

##### **Skin Contact**

Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor.

##### **Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor and follow their advice.

##### **Ingestion**

Do not induce vomiting. Rinse mouth with water. Immediately call a Poison Centre or doctor. Specific treatment is required.

##### **First-aid Comments**

Some of the first-aid procedures recommended here require advanced first-aid training. Get medical advice or attention if you feel unwell or are concerned.

#### **Most Important Symptoms and Effects, Acute and Delayed**

If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result. If in eyes: contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result. If inhaled: can cause severe irritation of the nose and throat.

#### **Immediate Medical Attention and Special Treatment**

##### **Special Instructions**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### **SECTION 5. FIRE-FIGHTING MEASURES**

#### **Extinguishing Media**

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### Suitable Extinguishing Media

Not combustible. Use extinguishing agent suitable for surrounding fire.

### Unsuitable Extinguishing Media

None known.

### Specific Hazards Arising from the Product

Heating increases the release of toxic vapour.

In a fire, the following hazardous materials may be generated: Silicon oxide, sodium oxide and possibly sodium.

### Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases. Fight fire from a safe distance or a protected location. Knock down vapours or gases with water fog or fine water spray. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Dike and recover contaminated water for appropriate disposal.

Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

### Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas.

### Methods and Materials for Containment and Cleaning Up

Avoid generating dust. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid generating dusts. Only use where there is adequate ventilation. Prevent accidental contact with incompatible chemicals. Keep containers tightly closed when not in use or empty. General hygiene considerations: wash hands thoroughly after handling this material.

### Conditions for Safe Storage

Store in an area that is: well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in the original, labelled, shipping container.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Sodium Metasilicate	Not established		Not established			
Water	Not established		Not established			

### Appropriate Engineering Controls

Use local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

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**Eye/Face Protection**

Wear chemical safety goggles and face shield when contact is possible.

**Skin Protection**

Wear chemical protective clothing e.g. gloves, aprons, boots.

**Respiratory Protection**

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES****Basic Physical and Chemical Properties**

<b>Appearance</b>	White powder.
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not applicable
<b>pH</b>	~ 14
<b>Melting Point/Freezing Point</b>	1089 °C (1992 °F) (melting); Not applicable (freezing)
<b>Initial Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	Not applicable
<b>Vapour Density (air = 1)</b>	Not applicable
<b>Relative Density (water = 1)</b>	Not available
<b>Solubility</b>	Soluble in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not applicable
<b>Viscosity</b>	Not available (kinematic); Not applicable (dynamic)
<b>Other Information</b>	
<b>Physical State</b>	Solid

**SECTION 10. STABILITY AND REACTIVITY****Reactivity**

Not reactive under normal conditions of use.

**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

Reacts violently in the presence of acidic conditions (low pH). Hydrogen gas can be evolved from aqueous solutions that have been in contact with aluminum, zinc, tin (and respective alloys). This can form an explosive mixture with air.

**Conditions to Avoid**

Water, moisture or humidity. Acidic conditions (low pH).

**Incompatible Materials**

Reacts violently with: strong acids (e.g. hydrochloric acid).

**Hazardous Decomposition Products**

None known.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; ingestion; eye contact.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Sodium Metasilicate	Not available	1280 mg/kg (rat)	Not available
Water	Not available	> 89840 mg/kg (rat)	Not available

### Skin Corrosion/Irritation

Causes severe skin burns.

### Serious Eye Damage/Irritation

Causes serious eye damage.

### STOT (Specific Target Organ Toxicity) - Single Exposure

#### Inhalation

Causes severe nose and throat irritation.

#### Ingestion

Causes severe irritation or burns to the mouth, throat and stomach.

### Aspiration Hazard

No information was located.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Sodium Metasilicate	Not Listed	Not designated	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed	Not Listed

### Reproductive Toxicity

#### Development of Offspring

No information was located.

#### Sexual Function and Fertility

No information was located.

#### Effects on or via Lactation

No information was located.

### Germ Cell Mutagenicity

No information was located.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

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Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3253	Disodium trioxosilicate	8	III

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

Sodium Metasilicate:

Listed on the DSL.

Water:

Listed on the DSL.

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

Sodium Metasilicate:

Listed on the TSCA Inventory.

Water:

Listed on the TSCA Inventory.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Alphachem Limited

**Phone No.** (905)-821-2995

**Date of Preparation** July 27, 2017

**Date of Last Revision** July 27, 2017

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer** This document is offered only as a guide in the safe handling of the above product, and has been prepared from the best information currently available. It is not intended to be all-inclusive and the conditions of use may involve other additional considerations. Since Alphachem Limited cannot anticipate or control the conditions under which the product may be used, it will not be liable for any claims, damages or losses which may result from the use or reliance on any information herein.

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