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## Section 01 - Product And Company Identification

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<b>Product Identifier</b>	Sodium metasilicate anhydrous
<b>Other Means of Identification</b>	Disodium metasilicate, metso anhydrous, water glass, soluble glass, sodium sesquisilicate, sodium silicate, sodium polysilicate, disodium monosilicate,
<b>Product Use and Restrictions on Use</b>	Detergent builder, concrete treatment, water treatment
<b>Initial Supplier Identifier</b>	<b>Prairie Mud Service</b> 738 6th Street Estevan, SK S4A 1A4
<b>24-Hour Emergency Phone</b>	306-634-3411

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## Section 02 - Hazard Identification

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### GHS-Classification

**Skin Corrosion/Irritation** Category 1B

**STOT-Single Exposure** Category 3

### Physical Hazards

**Corrosive to Metals** Category 1

### **Danger**

### **Hazards Statements**

H290 – May be corrosive to metals.

H314 – Causes severe skin burns and eye damage.

H335 – May cause respiratory irritation

### **Pictograms**



## Precautionary Statements

P234 – Keep only in original container.

P260 – Do not breathe dust

P264 – Wash hands thoroughly after handling.

P271 – Use only outdoors or in a well-ventilated area

P280 – Wear protective gloves, protective clothing, eye protection, and face protection.

P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 – Immediately call a POISON CENTER or doctor/physician.

P363 – Wash contaminated clothing before reuse.

P390 – Absorb spillage to prevent material damage.

P403 + P233 – Store in a well-ventilated place. Keep container tightly closed

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Sodium Metasilicate	6834-92-0	>90%	

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## Section 04 - First Aid Measures

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<b>Inhalation</b>	Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek immediate medical attention.
<b>Skin Contact / Absorption</b>	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
<b>Eye Contact</b>	Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If a contact lens is present, remove only if easy to do so. Seek immediate medical attention.
<b>Ingestion</b>	Do not induce vomiting if swallowed. Give large quantities of water if conscious. Seek medical attention immediately.
<b>Additional Information</b>	Not Available

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## Section 05 - Fire Fighting Measures

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<b>Suitable Extinguishing Media</b>	Use appropriate media for surrounding fire (water, chemical foam, dry chemical, or carbon dioxide).
<b>Unsuitable Extinguishing Media</b>	Not Available
<b>Specific Hazards Arising From the Chemical</b>	Silicic acid will form if product comes in contact with water at high temperatures.
<b>Special Protective Equipment and Precautions for Fire-Fighters</b>	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
<b>Further Information</b>	Not Available

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## Section 06 - Accidental Release Measures

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**Personal Precautions / Protective Equipment / Emergency Procedures** Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Flush with water to remove any residue.

**Environmental Precautions** Prevent entry into sewers, basements or confined areas; dike if needed.

**Methods and Materials for Containment and Cleaning Up** Avoid producing air-borne dust. Sweep or vacuum material into a sealed, labeled, chemically impervious container. Wash down area with excess of water.

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## **Section 07 - Handling and Storage**

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**Precautions for Safe Handling** 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.

**Conditions for Safe Storage** Keep in tightly closed containers. Store in a cool, dry, ventilated area away from heat, moisture and incompatibles.

**Incompatibilities** Can generate flammable hydrogen gas when in contact with aluminum, zinc or tin. May corrode aluminum, zinc, and tin. Sodium metasilicate can be precipitated by acids alkaline earth, and heavy metal ions.

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## **Section 08 - Exposure Controls and Personal Protection**

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### **Exposure Limit(s)**

<b>Component</b>	<b>Regulation</b>	<b>Type of Listing</b>	<b>Value</b>
Sodium metasilicate	Not Available		

### **Engineering Control(s)**

**Ventilation Requirements** Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

**Other** Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

### **Protective Equipment**

**Eyes/Face** 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.

**Hand Protection** Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

**Skin and Body Protection** Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

**Respiratory Protection** A half-face dust/mist respirator should be worn where dust or mist is present. Wear a full-face positive-pressure, air supplied respirator in emergency situations or where exposure levels are unknown.

**Thermal Hazards** Not Available

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## **Section 09 - Physical and Chemical Properties**

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## Appearance

<b>Physical State</b>	Solid granules or powder
<b>Colour</b>	White
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not Available

## Property

<b>pH</b>	12.7 (1% solution
<b>Melting Point/Freezing Point</b>	1089°C
<b>Initial Boiling Point and Boiling Range</b>	>1200°C
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Available
<b>Flammability</b>	Non-Flammable
<b>Upper Flammable Limit</b>	Not Applicable
<b>Lower Flammable Limit</b>	Not Applicable
<b>Vapour Pressure (mm Hg, 20°C)</b>	Not Available
<b>Vapour Density (Air=1)</b>	Not Available
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	Completely soluble in water. Decomposed by ethanol.
<b>Partition Coefficient: n-octanol/water</b>	Not Available
<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	Not Available
<b>Viscosity</b>	Not Available
<b>Explosive Properties</b>	Not Available
<b>Specific Gravity (Water=1)</b>	2.61
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	Na <sub>2</sub> SiO <sub>3</sub>
<b>Molecular Weight</b>	122.062 g/mol

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## **Section 10 - Stability and Reactivity**

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<b>Reactivity</b>	Not Available
<b>Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Polymerization will not occur.
<b>Conditions to Avoid</b>	Not Available
<b>Incompatible Materials</b>	Can generate flammable hydrogen gas when in contact with aluminum, zinc or tin. May corrode aluminum, zinc, and tin. Sodium metasilicate can be precipitated by acids alkaline earth, and heavy metal ions.
<b>Hazardous Decomposition Products</b>	Silicic acid will form if product comes in contact with water at high temperatures.

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## Section 11 - Toxicological Information

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### Acute Toxicity

Component	Oral LD <sub>50</sub>	Dermal LD <sub>50</sub>	Inhalation LC <sub>50</sub>
Sodium Metasilicate	1280 mg/kg (rat)	Not Available	Not Available

### Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Metasilicate	Not listed as carcinogenic (IARC and ACGIH).

<b>Skin Corrosion/Irritation</b>	May cause redness, blistering and severe burns.
<b>Ingestion</b>	Corrosive product. Will cause diarrhea, abdominal cramps, mouth and tongue pain, sore throat, nausea, stomach ache. May lead to death if ingested.
<b>Inhalation</b>	May irritate nose, throat, and lungs and may cause respiratory tract irritation.
<b>Serious Eye Damage/Irritation</b>	Causes redness, pain, tissue burns and impaired vision.
<b>Respiratory or Skin Sensitization</b>	No sensitizing effects known.
<b>Germ Cell Mutagenicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>STOT-Single Exposure</b>	May irritate nose, throat, and lungs and may cause respiratory tract irritation.
<b>STOT-Repeated Exposure</b>	Not Available
<b>Aspiration Hazard</b>	May cause pulmonary edema.
<b>Synergistic Materials</b>	Not Available

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## Section 12 – Ecological Information

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### Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Metasilicate	Not Available	Not Available	Not Available

<b>Biodegradability</b>	Final product of degradation is silica sand
<b>Bioaccumulation</b>	Low potential for bioaccumulation
<b>Mobility</b>	Highly mobile in soils.

Other Adverse Effects Not Available

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## Section 13 – Disposal Considerations

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**Waste From Residues/Unused Products** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

**Contaminated Packaging** Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

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## Section 14 – Transport Information

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**UN Number** UN3253

**UN Proper Shipping Name** DISODIUM TRIOXOSILICATE

**Transport Hazard Class(es)** 8

**Packaging Group** III

**Environmental Hazards** Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.

**Special Precautions** Not Available

**Transport in Bulk** Not Available

**Additional Information**

<u>Packing Group</u>	<u>Limited Quantity Index</u>
II	1 L
III	5 L

### TDG

**Other** Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

**TDG PRODUCT CLASSIFICATION:** This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

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## Section 15 – Regulatory Information

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**NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.**

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## Section 16 – Other Information

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**Preparation Date** 2021 June 14

**Note:** The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

### **Attention: Receiver of the chemical goods / SDS coordinator**

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution<sup>®</sup> initiative, Panther Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. Panther will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

**References:**

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA