

### Section 01 - Identification

<b>Product Identifier</b>	Sulphamic Acid
<b>Other Means of Identification</b>	Amidosulphuric acid, aminosulphonic acid
<b>Product Use and Restrictions on Use</b>	Specialty chemicals, water treatment, descaling, metal pickling, galvanising, use in sulphating and sulphonating reactions, manufacture of artificial sweeteners. Used as a plasticizer and fire retardant, and in bleaching textiles and paper.
<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

### Section 02 - Hazard Identification

#### GHS-Classification

**Skin Corrosion/Irritation** Category 2

**Eye Corrosion/Irritation** Category 2

#### Physical Hazards

No known physical hazards.

#### **Warning**

#### **Hazard Statements**

H315 – Causes skin irritation.

H319 – Causes serious eye irritation.

#### **Pictograms**



#### **Precautionary Statements**

P264 – Wash hands thoroughly after handling.

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

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P333 + P313 – If skin irritation or rash occurs: Get medical advice/attention.

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

P337 + P313 – If eye irritation persists: Get medical advice/attention.  
P363 – Wash contaminated clothing before reuse.

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## Section 03 - Composition / Information on Ingredients

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Chemical Name	CAS Number	Weight %	Unique Identifiers
Sulphamic Acid	5329-14-6	100%	

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## Section 04 - First Aid Measures

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<b>Inhalation</b>	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek 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>	Immediately flush eye(s) with lukewarm, gently flowing water for 30 minutes while forcibly holding the eyelids open to ensure complete irrigation of the eye tissue. If irritation persists, seek medical attention.
<b>Ingestion</b>	Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth with water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Seek medical attention.
<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>	May release sulphur dioxide, sulphur trioxide, nitrogen oxides, and ammonia gas when heated in a fire.
<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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<b>Personal Precautions / Protective Equipment / Emergency Procedures</b>	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so.
<b>Environmental Precautions</b>	Prevent material from entering sewers.
<b>Methods and Materials for Containment and Cleaning Up</b>	Sweep spilled substance into covered containers. If appropriate, moisten first to prevent formation of dust. Cautiously neutralize remainder. Then wash with plenty of water.

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## Section 07 - Handling and Storage

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<b>Precautions for Safe Handling</b>	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. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
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**Conditions for Safe Storage** Corrosive materials should be stored in a separate safety storage cabinet or room. Store away from bases. Keep in tightly closed, suitably labeled containers. Store in a cool, dry, ventilated area away from heat, moisture and incompatibles.

**Incompatibilities** Strong oxidizing agents, strong bases, moisture, chlorine and fuming nitric acid.

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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>
Sulphamic Acid	Not Established		

### **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 should 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**

**Physical State** Solid crystalline

**Colour** White

**Odour** Odourless

**Odour Threshold** Not Available

### **Property**

**pH** 1.18 (1% solution)

**Melting Point/Freezing Point** 205°C

<b>Initial Boiling Point and Boiling Range</b>	Decomposes
<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>	1.25-1.29
<b>Relative Density</b>	Not Available
<b>Solubility(ies)</b>	21.3g/100mL water at 20°C
<b>Partition Coefficient: n-octanol/water</b>	Log K <sub>ow</sub> = 0.101
<b>Auto-ignition Temperature</b>	Not Applicable
<b>Decomposition Temperature</b>	209°C
<b>Viscosity</b>	Not Available
<b>Explosive Properties</b>	Not Available
<b>Specific Gravity (Water=1)</b>	2.15
<b>% Volatiles by Volume</b>	Not Available
<b>Formula</b>	NH <sub>2</sub> SO <sub>3</sub> H
<b>Molecular Weight</b>	97.1

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## Section 10 - Stability and Reactivity

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<b>Reactivity</b>	Contact with oxidizing agents and strong bases [ammonia and its solutions, carbonates, sodium hydroxide (caustic), potassium hydroxide, calcium hydroxide (lime), cyanide, sulphide, hypochlorites, chlorites] may generate heat, spattering, or boiling, and toxic vapours. Will react with chlorine or fuming nitric acid. Strong oxidizing agents, chlorine and nitric acid aqueous solutions are strong acids which react with bases. Will hydrolyze at room temperature to form sulphate and bisulphate.
<b>Stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Polymerization will not occur.
<b>Conditions to Avoid</b>	Avoid dispersion of Sulfamic Acid particulates into air and contact with heat. Avoid the use of non-vented containers if concentrated solutions of the acid are made and heated, as a runaway hydrolysis reaction will occur, generating sufficient steam in the container to cause an explosion.
<b>Incompatible Materials</b>	Strong oxidizing agents, strong bases, moisture, chlorine and fuming nitric acid.

**Hazardous Decomposition Products**

Decomposition products include sulphur dioxide, sulphur trioxide, nitrogen oxides, and ammonia gas.

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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>
Sulphamic Acid	1050mg/kg (guinea pig)	Not Available	Not Available

**Chronic Toxicity – Carcinogenicity**

Component	IARC
Sulphamic Acid	Product is not listed as carcinogenic by IARC, NTP or ACGIH

<b>Skin Corrosion/Irritation</b>	Strong irritant. Will cause tissue damage. Repeated skin exposure can produce local skin destruction or dermatitis.
<b>Ingestion</b>	Ingestion results in burns in the mouth, pharynx and gastrointestinal tract. Abdominal pain, vomiting, diarrhea, drop in blood pressure and asphyxia may occur. May lead to death if ingested.
<b>Inhalation</b>	Irritating to the upper respiratory tract and mucous membranes. May cause pulmonary edema. Inhalation of dust will produce irritation to the gastrointestinal and respiratory tract, characterized by burning, sneezing, coughing, headache, nausea, vomiting, and dizziness. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Serious Eye Damage/Irritation</b>	Severe eye irritant.
<b>Respiratory or Skin Sensitization</b>	Not Available
<b>Germ Cell Mutagenicity</b>	Not Available
<b>Reproductive Toxicity</b>	Not Available
<b>STOT-Single Exposure</b>	Irritating to the respiratory tract.
<b>STOT-Repeated Exposure</b>	Repeated or prolonged exposure to this product can produce target organs damage.
<b>Aspiration Hazard</b>	Repeated inhalation of dust can produce varying degree of respiratory irritation, lung damage and chronic respiratory irritation. 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
Sulphamic acid	Not Available	LC <sub>50</sub> (Pimephales promelas, 96hr): 14.2mg/L	Not Available
<b>Biodegradability</b>	Hazardous short term degradation products are not likely. However, long term degradation products may arise.		
<b>Bioaccumulation</b>	Low potential for bioaccumulation.		
<b>Mobility</b>	Not Available		
<b>Other Adverse Effects</b>	Not Available		

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## Section 13 – Disposal Considerations

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<b>Waste From Residues/Unused Products</b>	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
<b>Contaminated Packaging</b>	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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<b>UN Number</b>	UN2967				
<b>UN Proper Shipping Name</b>	SULPHAMIC ACID				
<b>Transport Hazard Class(es)</b>	8				
<b>Packaging Group</b>	III				
<b>Environmental Hazards</b>	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.				
<b>Special Precautions</b>	Not Available				
<b>Transport in Bulk</b>	Not Available				
<b>Additional Information</b>	<table><tr><td><u>Packing Group</u></td><td><u>Limited Quantity Index</u></td></tr><tr><td>III</td><td>5 Kg</td></tr></table>	<u>Packing Group</u>	<u>Limited Quantity Index</u>	III	5 Kg
<u>Packing Group</u>	<u>Limited Quantity Index</u>				
III	5 Kg				

### 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** August 14, 2015

**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) PAN
- 6) HSDB
- 7) ECHA