



Safety Data Sheet

Section 01 - Identification

Product Identifier	Descaler 140
Other Means of Identification	Amidosulphuric acid, aminosulphonic acid
Product Use and Restrictions on Use	Specialty chemicals, water treatment, descaling, metal pickling, galvanizing, use in sulphating and sulphonating reactions, manufacture of artificial sweeteners. Used as a plasticizer and fire retardant, and in bleaching textiles and paper.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

GHS-Classification

Skin Corrosion/Irritation	Category 1B
Serious Eye Damage/Irritation	Category 1

Physical Hazards

No known physical hazards.

Danger

Hazards Statements

H314 – Causes severe skin burns and eye damage.

Pictograms



Precautionary Statements

- P405 – Store locked up.
- P260 – Do not breathe dust.
- P304 + P340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P280 – Wear protective gloves, protective clothing, eye protection, and face protection.
- P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P363 – Wash contaminated clothing before reuse.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 +P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 – Immediately call a POISON CENTER or doctor/physician.
P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Sulphamic Acid	5329-14-6	60-100%	

Section 04 - First Aid Measures

Inhalation	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.
Skin Contact / Absorption	Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water for 30 minutes. Seek immediate medical attention. Completely decontaminate clothes, shoes and leather goods before reuse or discard.
Eye Contact	Contact lenses should never be worn when working with this product. 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.
Ingestion	Do not induce vomiting if swallowed. Give large quantities of water if conscious. Seek medical attention immediately.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Use appropriate media for surrounding fire (water, chemical foam, dry chemical, or carbon dioxide).
Unsuitable Extinguishing Media	Not Available
Specific Hazards Arising From the Chemical	May release sulphur dioxide, sulphur trioxide, nitrogen oxides, and ammonia gas when heated in a fire.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

Section 06 - Accidental Release Measures

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. Prevent material from entering sewers. Flush with water to remove any residue.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and Materials for Containment and Cleaning Up	Sweep up any spills and dispose of in appropriate container. If necessary, neutralize residue with a dilute solution of sodium carbonate.

Section 07 - Handling and Storage

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. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed
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.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Sulphamic Acid	ACGIH		Not Established

Engineering Control(s)

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.

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

Section 09 - Physical and Chemical Properties

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
Initial Boiling Point and Boiling Range	Decomposes
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Available
Vapour Density (Air=1)	1.25-1.29 (100% Sulphamic acid)
Relative Density	Not Available
Solubility(ies)	21.3g/100mL water at 20°C (100% Sulphamic acid)
Partition Coefficient: n-octanol/water	0.101 at 25°C (100% Sulphamic acid)
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	209°C (100% Sulphamic acid)
Viscosity	Not Available
Explosive Properties	Not Available
Specific Gravity (Water=1)	2.15
% Volatiles by Volume	Not Available
Formula	H ₃ NO ₃ S
Molecular Weight	97.10

Section 10 - Stability and Reactivity

Reactivity	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 that react with bases. Will hydrolyze at room temperature to form sulphate and bisulphite.
Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Polymerization will not occur.

Conditions to Avoid	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.
Incompatible Materials	Strong oxidizing agents, strong bases, moisture.
Hazardous Decomposition Products	Decomposition products include sulphur dioxide, sulphur trioxide, nitrogen oxides, and ammonia gas.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD₅₀	Dermal LD₅₀	Inhalation LC₅₀
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

Skin Corrosion/Irritation	Corrosive. Capable of producing severe burns, blister, ulcers and permanent scarring.
Ingestion	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.
Inhalation	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.
Serious Eye Damage/Irritation	Corrosive. Capable of producing serious eye burns and permanent damage, including blindness.
Respiratory or Skin Sensitization	Not Available
Germ Cell Mutagenicity	Not Available
Reproductive Toxicity	Not Available
STOT-Single Exposure	Irritating to the respiratory tract.
STOT-Repeated Exposure	Repeated or prolonged exposure to this product can produce target organs damage.
Aspiration Hazard	Repeated inhalation of dust can produce varying degree of respiratory irritation, lung damage and chronic respiratory irritation.
Synergistic Materials	Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sulphamic acid	Not Available	LC ₅₀ (Fathead minnow, 96hr): 14.2mg/L	Not Available

Biodegradability	Hazardous short term degradation products are not likely. However, long term degradation products may arise.
Bioaccumulation	Low potential for bioaccumulation.

Mobility Not Available

Other Adverse Effects Not Available

Section 13 – Disposal Considerations

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.

Section 14 – Transport Information

UN Number UN2967

UN Proper Shipping Name SULPHAMIC ACID

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 Packing Group Limited Quantity Index
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.

Section 15 – Regulatory Information

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.

Section 16 – Other Information

Preparation Date August 24, 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[®] initiative, ClearTech 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. ClearTech 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
- 7) PAN

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