

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: SULFAMIC ACID**

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MSDS Date: August 21, 1998
Emergency Contact: 1-800-424-9300**SECTION I****PRODUCT NAME:** Sulfamic Acid
CHEMICAL NAME: Sulfamic acid
CHEMICAL FAMILY: Sulfonic acid**DOT SHIPPING INFORMATION:** Sulfamic Acid, 8,
UN 2967, PG III**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Sulfamic acid	5329-14-6		None determined

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA**BOILING POINT (F):** N/A**SPECIFIC GRAVITY:** About 2.1**VAPOR PRESSURE (mm Hg):** N/A**% VOLATILE, BY VOLUME:** N/A**VAPOR DENSITY (air = 1):** N/A**EVAPORATION RATE:** N/A**SOLUBILITY IN WATER:** Soluble**APPEARANCE AND ODOR:** White, crystalline solid with a faint, pleasant odor.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:**

Nonflammable

FLAMMABLE LIMITS:

Lel: N/A Uel: N/A

EXTINGUISHING MEDIA:

Dry chemical, foam, carbon dioxide.

SPECIAL FIRE-FIGHTING PROCEDURES:

Water reacts with anhydrous sulfamic acid, lowering the pH and creating a corrosive solution.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.



SECTION V - REACTIVITY DATA

STABILITY:

Stable

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

Excessive heat and contamination with chlorine.

HAZARDOUS DECOMPOSITION PRODUCTS:

Toxic sulfur dioxide and nitrous oxide fumes.

SECTION VI - HEALTH HAZARD DATA

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Can cause varying degrees of irritation to eyes and skin. Solution can cause irritation to respiratory tract.

Inhalation: Dust can cause irritation to respiratory tract.

Ingestion: Moderately toxic. Can cause nausea, dizziness and abdominal pain.

STATEMENT OF PRACTICAL TREATMENT:

Contact: Wash exposed area thoroughly with soap and water. For eyes, flush with water for at least 15 minutes. Seek prompt medical attention.

Inhalation: Remove to fresh air. Treat symptomatically.

Ingestion: If conscious, give several glasses of milk or water. Do not induce vomiting. Call a physician at once.

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Avoid contact with eyes and skin. Do not take internally. Do not breathe dust. Wash thoroughly after handling. Store in a cool, dry area. Keep containers tightly closed.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Wear safety equipment. Sweep up product and recover into steel drums. If permitted by applicable regulations, flush residue to sewer with large amounts of water.



WASTE DISPOSAL METHOD:

Waste product is not an EPA-hazardous waste. Dispose of at a landfill or approved disposal facility. Comply with all local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

None normally required.

VENTILATION:

Maintain adequate ventilation.

EYE PROTECTION:

Chemical goggles.

SKIN PROTECTION:

Rubber gloves.

OTHER PROTECTIVE CLOTHING:

As needed to prevent contact with eyes and skin.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.