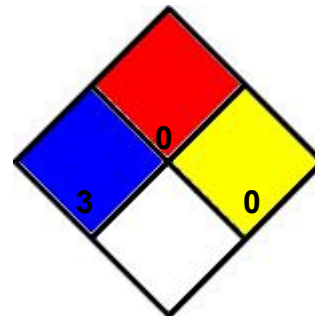


MATERIAL SAFETY DATA SHEET

SULFAMIC ACID

COMPANY IDENTIFICATION

MANUFACTURER: Chem-Tech
400 Ternes Dr.
Random Lake, WI 53075



INFORMATION PHONE: 920-994-2299
EMERGENCY: 1-800-255-3924
HMS HEALTH: 3 **FLAMMABILITY:** 0 **REACTIVITY:** 0 **PROTECTIVE:** J

SECTION I - PRODUCT IDENTIFICATION

PRODUCT: SULFAMIC ACID

PREPARED BY: Jason Sprang

DATE PREPARED: 2/28/2003

LAST REVISION: 9/1/2010

HAZARD CLASS: 8

UN: 2967

PACKING: III

GUIDE NUMBER: 154

SHIPPING: Sulfamic Acid

SECTION II - HAZARDOUS INGREDIENTS

<u>Chemical Name</u>	<u>%</u>	<u>CAS #</u>	<u>OSHA PEL</u>	<u>NIOSH</u>
SULFAMIC ACID	97-98	5329-14-6	1 MG/M 3	N/A

SECTION III - PHYSICAL CHARACTERISTICS

Physical State: Solid

Vapor Pressure (kPa): 0.133 at 146°C

Vapor Density (Air=1): 3.40

Formula Weight: 98.07

Specific Gravity (H₂O=1, at 4°C): 1.6-1.84 at 15°C

Water Solubility: Soluble in water

Evaporation Rate: Non Vol. at 38°C

pH: < 1

Boiling Point Range: About 290°C (554°F)

SOLUABILITY IN WATER: Soluble

APPEARANCE AND ODOR: Odorless white crystals.

SECTION IV - FIRE/EXPLOSION

FLASH POINT: N/A

LEL: N/A

UEL: N/A

Extinguishing Media: Use agent suitable for surrounding fire.

General Fire Hazards/Hazardous Combustion Products: Sulfur oxide(s), nitrogen oxide(s), and ammonia gas.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.

SECTION V - REACTIVITY DATA

STABLE: Yes

Stability/Polymerization/Conditions to Avoid: Sulfamic acid is stable when dry but it slowly hydrolyzes in solution to form ammonium bisulfate. Hazardous polymerization does not occur. Exposure to incompatibles and dispersion of sulfamic acid particulates into air.

Storage Incompatibilities: Sulfamic acid undergoes a violent or explosive reaction with chlorine, metal nitrates + heat, metal nitrites + heat, and fuming nitric acid.

Hazardous Decomposition Products: Thermal oxidative decomposition of sulfamic acid can produce nitrogen oxide(s), sulfur oxide(s), and ammonia gas.

SECTION VI - HEALTH HAZARD DATA

ACUTE HEALTH EFFECTS

EYE CONTACT: Corrosive to the eyes and may cause severe damage including blindness.

INHALATION: Corrosive to the nose, throat, and respiratory tract.

INGESTION: Corrosive and may cause severe and permanent damage to mouth, throat, and stomach.

SKIN CONTACT: Substance is corrosive. Cause severe skin burns.

SIGNS AND SYMPTOMS OF EXPOSURE: Shortness of breathing, confused behavior, redness of skin, swelling of tissues, watery eyes, nausea.

AGGRAVATED MEDICAL CONDITIONS: N/A

SUPPLEMENTAL HEALTH INFORMATION: N/A

EMERGENCY FIRST AID PROCEDURES

EYE CONTACT: *Do not* allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush immediately and continuously with flooding amounts of water until transported to an emergency medical facility. Consult a physician or ophthalmologist immediately.

INHALATION: Remove exposed person to fresh air and support breathing as needed.

INGESTION: Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the poison control center advises otherwise, have the *conscious and alert* person drink 1 to 2 glasses of water to dilute. *Do not* induce vomiting because of the corrosive nature of sulfamic acid. Vomiting will worsen esophageal condition.

SKIN CONTACT: *Quickly* remove contaminated clothing (if not stuck to skin). Rinse with flooding amounts of water for at least 15 minutes. For reddened or blistered skin, consult a physician.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED OR RELEASED:

Spill/Leak Procedures: Notify safety personnel, isolate and ventilate area, deny entry, and stay upwind.

Small Spills: *Do not* sweep or otherwise disperse into air. Carefully scoop up or vacuum (with appropriate filter) and place in suitable container for disposal.

Large Spills: Flush with plenty of water to containment area for later disposal. *Do not* release into sewers or waterways. Damp mop with dilute alkaline solution (sodium bicarbonate, sodium hydroxide, lime)

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

WASTE DISPOSAL METHOD: The preferred options for disposal are to send to licensed reclaimers, or to permitted incinerators. Any disposal practice must be in compliance with federal, state, and local regulations. Do not dump into sewers, ground, or any body of water.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Follow all MSDS/label precautions even after container is emptied because they may retain product residues.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: A NIOSH approved dust mask is required when using this product. However, mixing this product with other materials may liberate toxic, and/or corrosive gasses. Use of a multi gas respirator with a HEPA filter is strongly recommended.

VENTILATION: Provide exhaust ventilation sufficient to keep the airborne concentration of this product below its exposure limits.

GLOVE SELECTION: Use chemical resistant gloves.

EYE PROTECTION: Use unventilated goggles with this product.

OTHER PROTECTIVE CLOTHING: Where splashing is possible, full chemically resistant protective clothing (e.g., acid suit) and boots are required.

WORK / HYGENIC: Use good personal hygiene when handling this product. Wash hands after use, before smoking, or using the toilet.