TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**This compound is a skin sensitizer.** **CARCINOGEN. MINIMIZE EXPOSURE.** **Reproductive Effector.**	

Section I. Chemical Product and Company Identification

Chemical Name: **Sulfasalazine**

Catalog Number	S0580
Synonym	5-[4-(2-Pyridylsulfamoyl)phenylazo]salicylic Acid
Chemical Formula	$C_{18}H_{14}N_4O_5S$
CAS Number	599-79-1

Supplier: TCI America
9211 N. Harborgate St.
Portland OR
1-800-423-8616

In case of Emergency Call: **Chemtrec®**
(800) 424-9300 (U.S.)
(703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Sulfasalazine	599-79-1	Min. 95.0 (HPLC,T)	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen.	Rat LD_{50} (oral) 15600 mg/kg Mouse LD_{50} (oral) 12500 mg/kg Rat LD_{50} (intravenous) 1520 mg/kg Rat LD_{50} (subcutaneous) 3870 mg/kg

Section III. Hazards Identification

Acute Health Effects

Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material.
Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic Health Effects

CARCINOGENIC EFFECTS : Carcinogenic by RTECS criteria.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Tumorigenic Effects.
Rat TDLo Oral 177 mg/kg/2 years intermittent
TOXIC Effects:
Tumorigenic - Carcinogenic by RTECS criteria
Kidney, Ureter, and Bladder - Tumors
Mouse TDLo Oral 141 mg/kg/2 years intermittent
TOXIC Effects:
Tumorigenic - Carcinogenic by RTECS criteria
Liver - Tumors
Rat TDLo Oral 177187.5 mg/kg/105 weeks intermittent
TOXIC Effects:
Tumorigenic - Neoplastic by RTECS criteria
Kidney, Ureter, and Bladder - Tumors
DEVELOPMENTAL TOXICITY: Reproductive Effects.
Rat TDLo Oral 8400 mg/kg, male 14 days prior to mating
TOXIC Effects:
Paternal Effects - Spermatogenesis
Rat TDLo Oral 16800 mg/kg, male 28 days prior to mating
TOXIC Effects:
Effects on Fertility - Male fertility index
Effects on Fertility - Pre-implantation mortality
Mouse TDLo Oral 43875 mg/kg, male 13 weeks prior to mating
TOXIC Effects:
Paternal Effects - Testes, epididymis, sperm duct
Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Section IV. First Aid Measures

Eye Contact

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Inhalation

If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.

Ingestion

INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive.

Continued on Next Page **Emergency phone number (800) 424-9300**

Section V. Fire and Explosion Data

Flammability	May be combustible at high temperature.	Auto-Ignition	Not available.
Flash Points	Not available.	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2), sulfur oxides (SO_x).		
Fire Hazards	Not available.		
Explosion Hazards	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.		
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. Consult with local fire authorities before attempting large scale fire-fighting operations.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Skin sensitizing material. Carcinogenic material. Reproductive effecting material. Use a shovel to put the material into a convenient waste disposal container. Finish cleaning the spill by rinsing any contaminated surfaces with copious amounts of water. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage

Handling and Storage Information	SENSITIZER. CARCINOGEN. REPRODUCTIVE EFFECTOR. Keep away from heat. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe dust. Always store away from incompatible compounds such as oxidizing agents.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent. 
Exposure Limits	This chemical is classified as a carcinogen. There is no acceptable exposure limit for a carcinogen.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Solid. (Yellow ~ yellowish-red, crystal ~ powder.)	Solubility	Slightly soluble in alcohol. Practically insoluble in water, benzene, chloroform, ether.
Specific Gravity	Not available.		
Molecular Weight	398.39	Partition Coefficient	Not available.
Boiling Point	Not available.	Vapor Pressure	Not applicable.
Melting Point	246°C (474.8°F)	Vapor Density	Not available.
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
Viscosity	Not available.	Taste	Not available.

Section X. Stability and Reactivity Data

Stability	This material is stable if stored under proper conditions. (See Section VII for instructions)
Conditions of Instability	Avoid excessive heat and light.
Incompatibilities	Reactive with oxidizing agents.

Section XI. Toxicological Information

RTECS Number	VO6250000
Routes of Exposure	Eye Contact. Ingestion. Inhalation.
Toxicity Data	Rat LD_{50} (oral) 15600 mg/kg Mouse LD_{50} (oral) 12500 mg/kg Rat LD_{50} (intravenous) 1520 mg/kg Rat LD_{50} (subcutaneous) 3870 mg/kg

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Chronic Toxic Effects	**CARCINOGENIC EFFECTS** : Carcinogenic by RTECS criteria. **MUTAGENIC EFFECTS** : Not available. **TERATOGENIC EFFECTS** : Tumorigenic Effects. Rat TDLo Oral 177 mg/kg/2 years intermittent TOXIC Effects: Tumorigenic - Carcinogenic by RTECS criteria Kidney, Ureter, and Bladder - Tumors Mouse TDLo Oral 141 mg/kg/2 years intermittent TOXIC Effects: Tumorigenic - Carcinogenic by RTECS criteria Liver - Tumors Rat TDLo Oral 177187.5 mg/kg/105 weeks intermittent TOXIC Effects: Tumorigenic - Neoplastic by RTECS criteria Kidney, Ureter, and Bladder - Tumors **DEVELOPMENTAL TOXICITY**: Reproductive Effects. Rat TDLo Oral 8400 mg/kg, male 14 days prior to mating TOXIC Effects: Paternal Effects - Spermatogenesis Rat TDLo Oral 16800 mg/kg, male 28 days prior to mating TOXIC Effects: Effects on Fertility - Male fertility index Effects on Fertility - Pre-implantation mortality Mouse TDLo Oral 43875 mg/kg, male 13 weeks prior to mating TOXIC Effects: Paternal Effects - Testes, epididymis, sperm duct Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.
Acute Toxic Effects	Skin contact may result in sensitization. Always cover all exposed skin with an impermeable layer and use proper eye protection. A OSHA/MSHA approved dust and vapor respirator is required when working with this material. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Sulfasalazine's production and use for the treatment of inflammatory bowel diseases such as ulcerative colitis in humans and animals and for the treatment of rheumatoid arthritis in humans may result in its release to the environment through various waste streams. If released to air, an estimated vapor pressure of 2.3X10-14 mm Hg at 25 deg C indicates sulfasalazine will exist solely in the particulate phase in the atmosphere. Particulate-phase sulfasalazine will be removed from the atmosphere by wet or dry deposition. Sulfasalazine absorbs light at wavelengths >290 nm (lambda max = 359 nm) and therefore may be susceptible to direct photolysis by sunlight. If released to soil, sulfasalazine is expected to have low mobility based upon an estimated Koc of 1,800. Estimated pKa values of 6.5 (sulfonamide nitrogen) and 2.3 (carboxylic acid) indicate that this compound will exist primarily as an anion in the environment and anions generally have higher mobility in soils than their neutral counterparts. Volatilization from moist soil surfaces is not expected to be an important fate process because anions do not volatilize. Sulfasalazine is not expected to volatilize from dry soil surfaces based upon its vapor pressure. Sulphasalazine is reported to be non-biodegradable during sewage treatment; however, data supporting this conclusion have not been found. If released into water, sulfasalazine is expected to adsorb to suspended solids and sediment based upon the estimated Koc. However, adsorption in some soils may be lower than this Koc would suggest since sulfasalazine exists primarily as an anion in the environment and anions generally do not adsorb to sediment as strongly as their neutral counterparts. Volatilization from water surfaces is not expected to be an important fate process because anions do not volatilize. An estimated BCF of 3.2 suggests the potential for bioconcentration in aquatic organisms is low. Sulfasalazine is not expected to undergo hydrolysis in the environment due to the lack of functional groups that hydrolyze under environmental conditions. Occupational exposure to sulfasalazine may occur through dermal contact with this compound at workplaces where sulfasalazine is produced or used. Exposure to sulfasalazine among the general population may be limited to those administered this substance as a drug and those who administer this substance to animals.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification	Not a DOT controlled material (United States).
PIN Number	Not applicable.
Proper Shipping Name	Not applicable.
Packing Group (PG)	Not applicable.
DOT Pictograms	

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Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	CLASS D-2B: Material causing other toxic effects (TOXIC). On DSL
EINECS Number (EEC)	209-974-3
EEC Risk Statements	R45- May cause cancer. R46- May cause heritable genetic damage. R47- May cause birth defects.
Japanese Regulatory Data	ENCS No. 9-483

Section XVI. Other Information

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