



# SILVER FERN CHEMICAL, INC.

## Safety Data Sheet

### SULFAMIC ACID

#### Sulfamic Acid

SDS Preparation Date (mm/dd/yyyy): 10/07/2021

### SECTION 1. IDENTIFICATION

#### Product identifier used on the label

: **Sulfamic Acid**

**Other means of identification** : None assigned.

#### Recommended use of the chemical and restrictions on use

:  
Recommended restrictions: Industrial use only.

#### Chemical family

: Pure substance

#### Distributed by:

Silver Fern Chemical, Inc.

2226 Queen Anne Ave N

Seattle WA 98109

Customer Svc: 1-866-282-3384; Info@silverfernchemical.com

**24 Hr. Emergency Tel # :INFOTRAC: (800) 535-5053 (US and Canada);  
(352) 323-3500 (Outside US and Canada)**

### SECTION 2. HAZARDS IDENTIFICATION

#### Classification of the chemical

Off-white powder Odorless.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Eye Damage/Irritation - Category 1

Skin Corrosion/Irritation - Category 1C

Specific target organ toxicity, single exposure - Category 3 (respiratory)

#### Label elements

Hazard pictogram(s)



Signal Word

**DANGER!**

Hazard statement(s)

Causes severe skin burns and eye damage.  
May cause respiratory irritation.

**SAFETY DATA SHEET***Precautionary statement(s)*

Do not breathe dust.  
Use only outdoors or in a well-ventilated area.  
Wash thoroughly after handling.  
Wear protective gloves/clothing and eye/face protection.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.  
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

Dispose of contents/container in accordance with local regulation.

**Other hazards**

Other hazards which do not result in classification:

Ingestion can cause irritation and corrosive action in the mouth, stomach and digestive tract.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Sulfamic acid	Sulfamidic acid	5329-14-6	100.00

**SECTION 4. FIRST-AID MEASURES****Description of first aid measures**

- Ingestion* : Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.
- Inhalation* : Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. If breathing is difficult, give oxygen by qualified medical personnel only. If breathing has stopped, give artificial respiration.
- Skin contact* : Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Obtain medical attention if symptoms develop and persist.
- Eye contact* : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Protect unharmed eye. Immediately call a POISON CENTER or doctor/physician.

**Most important symptoms and effects, both acute and delayed**

- : Causes serious eye damage. Symptoms may include severe pain, blurred vision, redness and corrosive damage. Causes severe skin burns. Symptoms may include redness, blistering, pain and swelling. May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.

**Indication of any immediate medical attention and special treatment needed**

- : Treat symptomatically.

**SECTION 5. FIRE-FIGHTING MEASURES****Extinguishing media**

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*Suitable extinguishing media*

- : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams, carbon dioxide and dry chemical.

*Unsuitable extinguishing media*

- : Do not use a solid water stream as it may scatter and spread fire.

**Special hazards arising from the substance or mixture / Conditions of flammability**

- : Burning may produce irritating, toxic and obnoxious fumes.

**Flammability classification (OSHA 29 CFR 1910.106)**

- : Not flammable.

**Hazardous combustion products**

- : Sulfur oxide Ammonia Sulfuric acid

**Special protective equipment and precautions for firefighters**

*Protective equipment for fire-fighters*

- : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

*Special fire-fighting procedures*

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

- : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Wear suitable protective equipment. Refer to protective measures listed in sections 7 and 8. Restrict access to area until completion of clean-up.

**Environmental precautions** : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

**Methods and material for containment and cleaning up**

- : Stop spill or leak at source if safely possible. Sweep up and shovel into suitable containers for disposal.

**Special spill response procedures**

- : Contact appropriate local and provincial environmental authorities for assistance and/or reporting requirements.  
US CERCLA Reportable quantity (RQ): None.

### SECTION 7. HANDLING AND STORAGE

**Precautions for safe handling**

- : Avoid contact with eyes, skin and clothing. Keep away from incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling. Avoid breathing dust and fume.

**Conditions for safe storage** : Store in a cool, dry, well-ventilated area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel.

**Incompatible materials** : Strong alkalis ;Metal compounds

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### SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>				
<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Sulfamic acid	N/Av	N/Av	N/Av	N/Av

#### Exposure controls

##### Ventilation and engineering measures

: Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

##### Respiratory protection

: Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust and/or fumes). Advice should be sought from respiratory protection specialists.

##### Skin protection

: Wear protective gloves. Advice should be sought from glove suppliers.

##### Eye / face protection

: Wear eye/face protection. Chemical goggles must be worn to prevent dusts from entering the eyes.

##### Other protective equipment

: Wear sufficient clothing to prevent skin contact. Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

##### General hygiene considerations

: Avoid contact with skin, eyes and clothing. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : Off-white powder.

**Odour** : Odorless

**Odour threshold** : Not available.

**pH** : Not available.

**Melting Point/Freezing point** : 205°C (401°F)

##### Initial boiling point and boiling range

: Not applicable.

**Flash point** : Not Applicable (Does not burn)

**Flashpoint (Method)** : Not applicable.

**Evaporation rate (BuAe = 1)** : Not available.

**Flammability (solid, gas)** : Not applicable.

**Lower flammable limit (% by vol.)**

: Not applicable.

**Upper flammable limit (% by vol.)**

: Not applicable.

**Oxidizing properties** : Not applicable

**Explosive properties** : Not applicable.

**Vapour pressure** : Not available.

**Vapour density** : Not available.

**Relative density / Specific gravity**

: 2.125

**Solubility in water** : Soluble.

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**Other solubility(ies)** : Not available.  
**Partition coefficient: n-octanol/water or Coefficient of water/oil distribution**  
: Not available.  
**Auto-ignition temperature** : Not applicable.  
**Decomposition temperature** : 209°C (408.2°F)  
**Viscosity** : Not available.  
**Volatiles (% by weight)** : Not available.  
**Volatile organic Compounds (VOC's)**  
: Not available.  
**Absolute pressure of container**  
: Not applicable.  
**Flame projection length** : Not applicable.  
**Other physical/chemical comments**  
: No additional information.

**SECTION 10. STABILITY AND REACTIVITY**

**Reactivity** : This product is not reactive.  
**Chemical stability** : Material is stable under normal conditions.  
**Possibility of hazardous reactions**  
: No dangerous reaction known under conditions of normal use.  
**Conditions to avoid** : Avoid contact with incompatible materials. Do not use in areas without adequate ventilation.  
**Incompatible materials** : Oxidizing agents  
**Hazardous decomposition products**  
: None known, refer to hazardous combustion products in Section 5.

**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure:**

**Routes of entry inhalation** : YES  
**Routes of entry skin & eye** : YES  
**Routes of entry Ingestion** : YES  
**Routes of exposure skin absorption**  
: NO

**Potential Health Effects:****Signs and symptoms of short-term (acute) exposure***Sign and symptoms Inhalation*

: May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.

*Sign and symptoms ingestion*

: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

*Sign and symptoms skin*

: Causes severe skin burns. Symptoms may include redness, blistering, pain and swelling.

*Sign and symptoms eyes*

: Causes serious eye damage. Symptoms may include severe pain, blurred vision, redness and corrosive damage.

**Potential Chronic Health Effects**

: Frequent or prolonged contact may dry the skin, leading to discomfort and dermatitis.

**Mutagenicity**

: Not expected to be mutagenic in humans.

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**Carcinogenicity** : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

**Reproductive effects & Teratogenicity**

: Not expected to cause reproductive effects.

**Sensitization to material** : Not expected to be a skin or respiratory sensitizer.

**Specific target organ effects** : This material is classified as hazardous under OSHA regulations (29CFR 1910.1200) (Hazcom 2012). Classification:  
Specific target organ toxicity, single exposure - Category 3 (respiratory)

May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties.

Not classified as a specific target organ toxicity - repeated exposure.

**Medical conditions aggravated by overexposure**

: None known.

**Synergistic materials** : Not available.

**Toxicological data** : See below for individual ingredient acute toxicity data.

<u>Chemical name</u>	<u>LC<sub>50</sub>(4hr)</u> <u>inh, rat</u>	<u>LD<sub>50</sub></u>	
		<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Sulfamic acid	N/Av	3160 mg/kg	>2000 mg/kg (No mortality)

**Other important toxicological hazards**

: None known or reported by the manufacturer.

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity** : Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

**Ecotoxicity data:**

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Fish</u>		
		<u>LC50 / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Sulfamic acid	5329-14-6	70.3 mg/L (Fathead minnow)	N/Av	None.

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Daphnia</u>		
		<u>EC50 / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Sulfamic acid	5329-14-6	71.6mg/L (Daphnia magna)	N/Av	None.

<u>Ingredients</u>	<u>CAS #</u>	<u>Toxicity to Algae</u>		
		<u>EC50 / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Sulfamic acid	5329-14-6	48mg/L (Green algae)	N/Av	None.

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**Persistence and degradability**

: Biodegradation is not applicable to inorganic substances.

**Bioaccumulation potential**

: Not available.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Sulfamic acid (CAS 5329-14-6)	N/Ap	N/Ap

**Mobility in soil**

: High water solubility indicates a high mobility in soil.

**Other Adverse Environmental effects**

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Handling for Disposal**

: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.





**Methods of Disposal**

: Dispose in accordance with all applicable federal, state, provincial and local regulations.

**RCRA**

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

### SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
49CFR/DOT	UN2967	SULFAMIC ACID	8	III	
<b>49CFR/DOT Additional information</b>	None.				
TDG	UN2967	SULFAMIC ACID	8	III	
<b>TDG Additional information</b>	None.				
IMDG	UN2967	SULFAMIC ACID	8	III	 
<b>IMDG Additional information</b>	Consult the IMDG regulations for exceptions.				

**Special precautions for user** : None known or reported by the manufacturer.

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**Environmental hazards** : This product meets the criteria for an environmentally hazardous material according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

: Not available.

### SECTION 15 - REGULATORY INFORMATION

#### US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

<u>Ingredients</u>	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Sulfamic acid	5329-14-6	Yes	N/Ap	N/Av	No	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Acute Health Hazard Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

#### US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Sulfamic acid	5329-14-6	No	N/Ap	No	No	No	Yes	No	No

#### Canadian Information:

WHMIS information: Refer to Section 2 for a WHMIS Classification for this product.

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

#### International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Sulfamic acid	5329-14-6	226-218-8	Present	Present	(1)-402	KE-32336	Present	HSR001549

### SECTION 16. OTHER INFORMATION

**Legend** : ACGIH: American Conference of Governmental Industrial Hygienists  
CAS: Chemical Abstract Services



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CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980

CFR: Code of Federal Regulations

CSA: Canadian Standards Association

DOT: Department of Transportation

EPA: Environmental Protection Agency

HMIS: Hazardous Materials Identification System

HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

Inh: Inhalation

LC: Lethal Concentration

LD: Lethal Dose

MN: Minnesota

N/Ap: Not Applicable

N/Av: Not Available

NFPA: National Fire Protection Association

NIOSH: National Institute of Occupational Safety and Health

NJ: New Jersey

NTP: National Toxicology Program

OECD: Organisation for Economic Co-operation and Development

OSHA: Occupational Safety and Health Administration

PA: Pennsylvania

PEL: Permissible exposure limit

RCRA: Resource Conservation and Recovery Act

RI: Rhode Island

RTECS: Registry of Toxic Effects of Chemical Substances

SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit

TLV: Threshold Limit Values

TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices
  2. ECHA - European Chemical Agency
  3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, (Chempendium, HSDB and RTECs).
  4. Safety Data Sheets from manufacturer.
  5. US EPA Title III List of Lists
  6. California Proposition 65 List
  7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal

**Preparation Date (mm/dd/yyyy)**

: 10/07/2021

**Other special considerations for handling**

: Provide adequate information, instruction and training for operators.

## **SAFETY DATA SHEET**

### **DISCLAIMER**

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

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