

1. Identification

Product Identifier: Sulphamic Acid

Other means of identification: Sulfamic acid.

Recommended use of the chemical and restrictions on use: Chemical reagent. No information for uses advised against.

Details of manufacturer or importer:

Supplier: Guljag Industries Limited

Street Address: Nahata Bhawan,

Chopasni Road

ndia

Telephone: 091 291 7127 123 Web Address: www.guljag.com

Emergency telephone number: 091 99280 11572 (Available 24 hours)

2. Hazards Identification

Classification of the substance or mixture: This material is classified as hazardous according to the criteria of Regulation (EC) No. 1272/2008 (CLP), the Globally Harmonised System of Classification, Labelling and Packaging.

Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Irritation - Category 2A

Chronic Hazard to the Aquatic Environment – Category 3 (M-Factor = 1)

Label elements/pictogram:



Signal Word:

Warning

Hazard Statements:

H315: Causes skin irritation
H319: Causes serious eye irritation

H412: Harmful to aquatic life with long lasting effects

Prevention Precautionary Statements:

P102: Keep out of reach of children

P103: Read label before use

P264: Wash hands, face and all exposed skin thoroughly after handling

P280: Wear protective clothing, gloves, eye/face protection and suitable dust mask

P273: Avoid release to the environment

Response Precautionary Statements:

P101: If medical advice is needed, have product container or labelat hand

P302+352: IF ON SKIN: Wash with soap and water



P362: Take off contaminated clothing and washbefore reuse P332+313: If skin irritation occurs: Get medical advice/attention

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present

and easy to do - continue rinsing

P337+313: If eye irritation persists get medical advice/attention

Storage Precautionary Statements:

Not allocated

Disposal Statements:

P501: Dispose of contents/container in accordance with local, regional, national and international

regulations

Poison Schedule: S6 POISON

3. Composition/Information on Ingredients

Chemical Identity	CAS No.	EC No.	Concentration of Ingredients (% w/w)
Sulphamic Acid	5329-14-6	226-218-8	>99.5

4. First Aid Measures

Description of necessary first aid measures: For advice, contact a Poisons Information Centre or a doctor at once.

Ingestion: If swallowed, immediately rinse mouth with water. Do NOT induce vomiting. If vomiting occurs, give further water. Contact a Poisons information Centre or doctor for advice.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical advice.

Inhalation: If inhaled, remove from contaminated area into fresh air. Remove contaminated clothing. Allow patient to assume a comfortable position. Keep warm and at rest until fully recovered. If symptoms develop seek medical advice.

Eye Contact: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

Symptoms caused by exposure: Refer to Section 11 for Toxicological Information

Medical attention and special treatment: Treat symptomatically.

5. Fire Fighting Measures

Hazchem Code: 2X

Suitable extinguishing equipment: Water fog, fine water spray, foam, dry chemical powder or carbon dioxide.

Specific hazards arising from the chemical: Non-combustible solid. Reacts with oxidising agents and alkalis. Reacts violently with alkalis in an exothermic reaction. May be corrosive to metals.¹



Special protective equipment and precautions for fire fighters: Contact with metals may evolve extremely flammable hydrogen gas.¹ On decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Clear area of all unprotected personnel. Stop the source of the leak, if safe to do so. Clean up immediately. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Wear protective equipment to prevent skin and eye contact and the inhalation of dust.

Environmental precautions: If contamination of crops, sewers or waterways has occurred advise local emergency services.

Methods and materials for containment and clean up:

Large spills

Sweep, or vacuum up material, avoiding dust generation or dampen spilled material with water to suppress airborne dust. Collect spilled product and place in sealable containers or drums for disposal. Clean contaminated area and objects with plenty of water and detergent. Contain and absorb wash water for disposal.

Small spills

Sweep, or vacuum up material, avoiding dust generation or dampen spilled material with water to suppress airborne dust. Collect spilled product and place in a sealable container for disposal. Clean contaminated area and objects with plenty of water and detergent.

7. Handling and Storage

Precautions for safe handling: Avoid contact with skin, eyes and clothing. Avoid breathing dust. Use only in well ventilated areas. Wear protective clothing when mixing or using. Wash hands thoroughly after use.

Conditions for safe storage, including any incompatibilities: Store in a dry, clean, cool, well ventilated place away from sunlight. Store in the original, labelled container and keep container tightly closed when not in use. Store container upright and away from oxidising agents, alkalis and foodstuffs. Check regularly for spillage.

Keep out of reach of children. This product is a schedule 6 poison and must be stored and handled in accordance with the recommendations of the Standard for the Uniform Scheduling of Medicines and Poisons.

8. Exposure Controls/Personal Protection

Control parameters

Exposure standards: No workplace exposure standard has been assigned for this specific material.

Biological monitoring: No biological monitoring required.

Appropriate engineering controls: Avoid generating and inhaling dusts. Use with local exhaust ventilation or while wearing dust mask. Keep containers closed when not in use.



Personal protective equipment:

Manufacturing, Packaging and Transport: Personal protective equipment should be used only when other control measures (eg. elimination, substitution, isolation and engineering controls) have been found to be impracticable or in conjunction with one or more control measures. When needed wear overalls, safety glasses/chemical goggles, impervious gloves and a dust mask meeting the requirements of BIS 12257-1984 of Bureau of Indian Standards.



Recommendations for consumer use: Wear safety glasses and gloves. Avoid inhaling dust. Wash hands after use.

9. Physical and Chemical Properties

Appearance/odour: Practically odourless, white to colourless powder.

Solubility: 213g/L. Soluble in water.

Odour threshold Not available.

pH: 1.18 (1% aqueous solution)

Specific gravity/density: 2.151 Melting point: 205°C

Initial boiling point:
Boiling point range:
Flash point:
Evaporation rate:
Flammability:
Flammability limits:
Vapour pressure

Not applicable.
Not applicable.
Not applicable.
Not applicable.
Not applicable.

Rel. vap. Density, air=1: 3.3

Partition co-efficient: LogPow -4.34. Partitions into water.

Autoignition Temp: Not applicable

Decomposition Temp: 209°C

Viscosity: Not available.

Referene^{1,2}

10. Stability and Reactivity

Reactivity/Incompatible materials: Reacts with oxidising agents and alkalis. Reacts violently with alkalis in an exothermic reaction. May be corrosive to metals. Contact with metals may evolve extremely flammable hydrogen gas.¹

Chemical stability: Stable under normal conditions of use.

Conditions to avoid: Avoid contact with foodstuffs. Keep containers tightly closed when not in use. Avoid extremes of temperature and direct sunlight. Avoid contact with incompatible materials.

Possibility of hazardous reactions: No hazardous reactions when stored and handled within normal conditions of use.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.



11. Toxicological Information

No adverse effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Toxicity

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Skin contact: Product is not expected to be absorbed through the skin.

Inhalation: Inhalation of dust may result in respiratory irritation.

Corrosion/Irritation

Skin Contact: Contact with skin will result in irritation.³

Eye contact: Contact with eyes will result in irritation.³

Respiratory and skin sensitisation

This product is not expected to cause respiratory nor skin sensitisation.

Other toxic effects

This product is not expected to be a germ cell mutagen and cause heritable genetic damage.

This product is not expected to be carcinogenic and cause cancer.

This product is not expected to be a reproductive toxicant and impair fertility nor cause irreversible effects in the offspring.

This product may cause respiratory irritation if dust is inhaled following a single exposure, however repeated exposure to low doses are not expected to cause specific target organ toxicity.⁴

This product is not expected to present an aspiration hazard.

12. Ecological Information

Ecotoxicity: Avoid contaminating waterways. Harmful to aquatic species with long lasting effects.

96hr LC50 (Pimephales promelias, fathead minnow) = 14.2 mg/L.4

Persistence and degradability: Product is not rapidly biodegradable.⁴

Bioaccumulative potential: Product does not bioaccumulate. Partitions into water.4

Mobility in soil: No information available.

Other adverse effects: Not dangerous to the ozone layer.

13. Disposal Considerations

Disposal methods: Do not empty into drains. Refer to State Land Waste Management Authority.



14. Transport Information

Road and Rail Transport

DANGEROUS GOODS - Classified as Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail.

Class/Division: 8 CORROSIVE SUBSTANCE

UN No. 2967
Packing Group: III

Proper Shipping Name: SULPHAMIC ACID

Hazchem Code: 2X

Environmental hazards for transport purposes: Not a marine pollutant according to the criteria or the International Maritime Dangerous Goods Code (IMDG) for transport by sea.

Special precautions for transport: Not to be loaded with explosives (Class 1), dangerous when wet substances (Class 4.3), oxidising agents (Class 5.1), organic peroxides (Class 5.2), cyanides of Class 6, radioactive substances (Class 7) or food and food packaging in any quantity, however exemptions may apply. Note that concentrated strong acids are incompatible with concentrated strong alkalis.

Additional information: Not applicable.

Marine Transport

DANGEROUS GOODS - Classified as Dangerous Goods according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 8 CORROSIVE SUBSTANCE

UN No. 2967

Packing Group: III

Proper Shipping Name: SULPHAMIC ACID

Air Transport

DANGEROUS GOODS - Classified as Dangerous Goods according to the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Class/Division: 8 CORROSIVE SUBSTANCE

UN No. 2967

Packing Group: III

Proper Shipping Name: SULPHAMIC ACID



15. Regulatory Information

Safety, health and environmental regulations:

SCHEDULE 6 POISON – Listed as a schedule 6 poison in the Standard for the Uniform Scheduling of Medicines and Poisons.

This material is not listed as subject to the following international agreements:

- An ozone depleting substance according to the Montreal Protocol.
- A persistent organic pollutant according to the Stockholm Convention.
- As requiring Prior Informed Consent according to the Rotterdam Convention.

This material is listed as subject to the following international agreements:

- As Dangerous Goods (Hazardous Waste) according to the Basel Convention on Hazardous Waste
 - Acidic solutions or acids in solid form
- A marine pollutant, according to the Prevention of Pollution from Ships (MARPOL).
 - Annex III Harmful Substances carried in Packaged Form

16. Other Information

References

 Chemical Book (2017). Sulfamic acid. CAS No. 5329-14-6. (www.chemicalbook.com/ProductChemicalPropertiesCB6411280 EN.htm).

 $2. \quad \text{European Chemicals Agency (2017)}. \ C\&L\ Inventory.\ Sulphamic\ acid.\ Index\ Number\ 016-026-00-0.$

Reason for Issue

Supersedes Revision: Not applicable.

Reason for Issue: First issue.

The information contained in this Safety Data Sheet is intended to give general guidance on how to safely handle the product in the workplace. Since the supplier of this product cannot anticipate or control the conditions under which it may be used, each user must, prior to usage, assess and control the risks arisingfrom the use of this product. If clarification or further information is needed, the user should contact the product supplier, listed on the first page of this document.

The supplier's responsibility for the product as sold is subject to the terms and conditions of sale, a copy of which is available on request.