



## SAFETY DATA SHEET

### Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

## 1. Identification

### Product identifier

Product name	Sulfamic Acid
Synonyms; trade names	sulphamidic acid, sulphamic acid
CAS number	5329-14-6

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

Application	Industrial use. Catalyst. Detergent. Water treatment. Ink.
Uses advised against	No specific uses advised against are identified.

### Details of the supplier of the safety data sheet

Supplier	Wego Chemical Group 239 Great Neck Road Great Neck NY 11021 +1 (516) 487 3510 +1 (516) 487 3794
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### Emergency telephone number

Emergency telephone	(ChemTel) +1-800 255-3924; INTL +1- 813 248-0585
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## 2. Hazard(s) identification

### Classification of the substance or mixture

OSHA Regulatory Status	This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards	Not Classified
Health hazards	Skin Irrit. 2 - H315 Eye Irrit. 2A - H319
Environmental hazards	Aquatic Chronic 3 - H412

### Label elements

Hazard symbols



Signal word

Warning

Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Precautionary statements</b>	P264 Wash contaminated skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P302+P352 If on skin: Wash with plenty of water. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/ attention. P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/ container in accordance with national regulations.
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### Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

## 3. Composition/information on ingredients

### Substances

Product name	Sulfamic Acid
CAS number	5329-14-6
Chemical formula	H3NO3S

## 4. First-aid measures

### Description of first aid measures

<b>General information</b>	Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Skin Contact</b>	Rinse with water.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Temporary irritation.
<b>Ingestion</b>	May cause irritation.
<b>Skin contact</b>	Redness. Irritating to skin.
<b>Eye contact</b>	Irritating to eyes.

### Indication of immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	Treat symptomatically.
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## 5. Fire-fighting measures

### Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### Special hazards arising from the substance or mixture

<b>Specific hazards</b>	None known.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

### Advice for firefighters



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material.
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### Environmental precautions

<b>Environmental precautions</b>	Stop leak if safe to do so. Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).
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### Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Approach the spillage from upwind. Collect spillage with a shovel and broom, or similar and reuse, if possible. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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<b>Reference to other sections</b>	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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## 7. Handling and storage

### Precautions for safe handling



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

### Usage precautions

Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment.

### Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

### Conditions for safe storage, including any incompatibilities

#### Storage precautions

Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Utilize retaining walls to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

#### Storage class

Miscellaneous hazardous material storage.

### Specific end uses(s)

#### Specific end use(s)

The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

### Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimize worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimize exposure.



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

### Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

### Environmental exposure controls

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties





## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Appearance	Crystals.
Color	White.
Odor	No information available.
Odor threshold	No information available.
pH	pH (diluted solution): 1.18 1% solution
Melting point	205°C/401°F
Initial boiling point and range	Will decompose at temperatures exceeding 209°C/409°F.
Flash point	Not applicable.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	0.006 mm Hg @ 20°C/68°F
Vapor density	No information available.
Relative density	No information available.
Specific Gravity	2.15 g/cc at 4 C
Solubility(ies)	213 g/l water @ 20°C/68°F
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	Not applicable.
Other information	None.
Molecular weight	97.1

### 10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Possibility of hazardous reactions</b>	The following materials may react violently with the product: Water, moisture. Oxidizing agents. Alkalis. Nitric acid (HNO <sub>3</sub> ). Inorganic nitrites. Inorganic nitrates. Some metals.
<b>Conditions to avoid</b>	Avoid heat, flames and other sources of ignition.
<b>Materials to avoid</b>	Water, moisture. Oxidizing agents. Alkalis. Nitric acid (HNO <sub>3</sub> ). Inorganic nitrites. Inorganic nitrates. Some metals.
<b>Hazardous decomposition products</b>	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity - oral

**Summary** Based on available data the classification criteria are not met.

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 3,160.0

**Species** Rat

#### Acute toxicity - dermal

**Summary** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Summary** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Summary** Causes skin irritation.

**Animal data** Severe irritation. Dose: 500 mg, 24 hours, Rabbit

**Human skin model test** Causes mild skin irritation. Irritation. 4% solution 5 days

#### Serious eye damage/irritation

**Summary** Causes serious eye irritation.

**Serious eye damage/irritation** Dose: 250 mg, 24 hour, Rabbit

#### Respiratory sensitization

**Summary** Based on available data the classification criteria are not met.

#### Skin sensitization

**Summary** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity





## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Summary</b>	Based on available data the classification criteria are not met.
<b>Carcinogenicity</b>	
Summary	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.
<b>Reproductive toxicity</b>	
Summary	Based on available data the classification criteria are not met.
<b>Specific target organ toxicity - single exposure</b>	
Summary	Based on available data the classification criteria are not met.
<b>Specific target organ toxicity - repeated exposure</b>	
Summary	Based on available data the classification criteria are not met.
<b>Aspiration hazard</b>	
Summary	Not relevant. Solid.
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	A single exposure may cause the following adverse effects: Temporary irritation.
Ingestion	May cause irritation.
Skin Contact	Redness. Irritating to skin.
Eye contact	Irritating to eyes.
Route of exposure	Ingestion Inhalation Skin and/or eye contact
Target Organs	No specific target organs known.

## 12. Ecological information

### Acute aquatic toxicity

Summary Based on available data the classification criteria are not met.

Acute toxicity - fish LC<sub>50</sub>, 96 hour: 70.3 mg/l, Pimephales promelas (Fat-head Minnow)

### Chronic aquatic toxicity

Summary Harmful to aquatic life with long lasting effects.

### Persistence and degradability

Persistence and degradability The degradability of the product is not known.

### Bioaccumulative potential



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

### Mobility in soil

**Mobility** The product is water-soluble and may spread in water systems.

### Other adverse effects

**Other adverse effects** None known.

## 13. Disposal considerations

### Waste treatment methods

#### General information

The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

#### Disposal methods

Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible.

## 14. Transport information

**General** For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

### UN Number

UN No. (TDG) 2967

UN No. (IMDG) 2967

UN No. (ICAO) 2967

UN No. (DOT) UN2967

### UN proper shipping name

Proper shipping name (TDG) SULPHAMIC ACID



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Proper shipping name (IMDG) SULPHAMIC ACID

Proper shipping name (ICAO) SULPHAMIC ACID

Proper shipping name (DOT) SULFAMIC ACID

### Transport hazard class(es)

DOT hazard class 8

DOT hazard label 8

TDG class 8

TDG label(s) 8

IMDG Class 8

ICAO class/division 8

Transport labels



DOT transport labels



### Packing group

TDG Packing Group III

IMDG packing group III

ICAO packing group III

DOT packing group III

### Environmental hazards

Environmentally Hazardous Substance

No.

### Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

IMDG Code segregation group 1. Acids

EmS F-A, S-B



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

### 15. Regulatory information

#### US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

SARA (311/312) Hazard Categories

Serious eye damage or eye irritation  
Skin corrosion or irritation

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

#### US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Not listed.

New Jersey "Right To Know" List

Present.

Pennsylvania "Right To Know" List

Not listed.

#### Inventories

EU - EINECS/ELINCS

EINECS

Canada - DSL/NDSL

DSL

US - TSCA

Present.

Australia - AICS

Present.



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

Japan - ENCS  
Present.

Korea - KECI  
Present.

China - IECSC  
Present.

Philippines - PICCS  
Present.

New Zealand - NZIOC  
Present.

Taiwan - TCSI  
Present.

### 16. Other information

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.

ICAO: Technical instructions for the safe transport of dangerous goods by air.

IMDG: International maritime dangerous goods.

CAS: Chemical abstracts service.

ATE: Acute toxicity estimate.

LC<sub>50</sub>: Lethal concentration to 50 % of a test population.

LD<sub>50</sub>: Lethal dose to 50% of a test population (median lethal dose).

EC<sub>50</sub>: 50% of maximal effective concentration.

PBT: Persistent, bioaccumulative and toxic substance.

vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Eye Irrit. = Eye irritation

Skin Irrit. = Skin irritation

Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Training advice

Read and follow manufacturer's recommendations. Only trained personnel should use this material.

Revision date

7/29/2020

Revision

Annual revision

Supersedes date

12/24/2019

SDS No.

67



## Sulfamic Acid

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

<b>Hazard statements in full</b>	H315 Causes skin irritation. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
<b>NFPA - health hazard</b>	Extremely hazardous, serious injury. (3)
<b>NFPA - flammability hazard</b>	Will not burn. (0)
<b>NFPA - instability hazard</b>	Normally stable. (0)
<b>NFPA - special hazard</b>	COR

End of Safety Data Sheet



This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.