



Chemical Safety Data Sheet

1. Product and Company Identification

1.1 Product name: Sulfamic acid

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: It is widely used in many industrial equipment and civil cleaning agents, oil treatment agents and cleaning agents, electroplating agents, electrochemical polishing agents, asphalt emulsifiers, etchers, dye pharmaceuticals and pigment industry sulfonating agents, dyeing agents, efficient bleaching agents, fiber, paper flame retardants, softeners, resin crosslinking promoters, herbicides, orange preventers and Standard analytical reagents and other fields.

1.3 Details of the supplier of the safety data sheet:

Company	Unilong Industry Co., Ltd.
Address	No.2000 Shunhua Rd, High-Tech Zone, Jinan City, Shandong Province, China
Telephone	+86 0531 55690071

2. Hazard identification

Classification of the substance or mixture

Classification according to GHS

Serious eye damage/eye Irritation(Category 2)

Skin corrosion/irritation(Category 2)

Hazardous to the aquatic environment -Chronic(Category 3)

GHS label elements:

Pictogram



Signal word Warning

Hazard statement(s)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)

P264+P265 Wash face and hands thoroughly after handling. Do not touch eyes.

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 soap and 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.

P332+P317 If skin irritation occurs: Get medical help.

P337+P317 If eye irritation persists: Get medical help.



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/ national/ international regulations

Other hazards

Physical and chemical hazards:See Section 10

Human health hazards:See Section 11

Environmental hazards:See Section 12

3. Composition/Information on ingredients

Chemical composition					
Component	CAS No.	Formula	Composition	EC No.	GHS CLASS
Sulfamic acid	5329-14-6	H ₃ NO ₃ S	≥99.5%	226-218-8	Eye Irrit.2 Skin Irrit.2 Aquatic Chronic 3 H315 H319 H412

For the full text of H-Statements mentioned in this Section,see Section 16.

4.First aid measures

Description of first aid measures

Eye Contact: Check for and remove any contact lenses.Immediately flush eyes with plenty of water for at least 15 minutes.Occasionally lifting the upper and lower eyelids.Get medical attention if irritation occurs

Skin Contact: Immediately wash skin with soap and copious amounts of water.Be particularly careful to clean folds,crevices, creases and groin.Cover the irritated skin with an emollient. If irritation develops and persists, seek medical attention

Ingestion: Do not induce vomiting.Never give anything by mouth to an unconscious person.Wash out mouth with water.Loosen tight clothing such as a collar,tie,belt or waistband.Get medical attention immediately.

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.

Inhalation: Evacuate the victim to a safe area as soon as possible.Loosen tight clothing such as a collar,tie,belt or waistband.If not breathing,give artificial respiration.If breathing is difficult,give oxygen.Seek medical attention if irritation develops or persists.WARNING:It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic,infectious or corrosive.Seek immediate medical attention.

Personal protective equipment for first-aid responders: No further relevant information available

Most important symptoms/effects,acute and delayed:

No further relevant information available.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically.



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

5. Fire fighting measures

Extinguishing media

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture:

Non combustible. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.

Heating may cause expansion or decomposition leading to violent rupture of containers. Heating with nitrates or nitrites can result in a violent reaction. Keep product and empty container away from heat and sources of ignition.

Special Protective Equipment and Precautions for Firefighters:

Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use fire fighting procedures suitable for surrounding area. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

If packages rupture. Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill leak. Evacuate personnel to safe areas. Spilled or released at long industrial condition: Remove ignition sources, Keep away from heat and flame, evacuate area. Avoid dust formation. Avoid breathing dust. Shut off source of the leak only if it is easy to do so. Do not get water inside containers.

Environmental precautions

Take precautions to ensure product does not contaminate the ground or enter the drainage system, surface water sanitary sewer or ground water system. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Sweep up and place in suitable containers for recycle or disposal according to local /national regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage

Precautions for safe handling

Dust generated in handling of this product can be explosive if sufficient quantities are mixed in air. In accordance with good industrial practice, handle with care and avoid unnecessary personal



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

contact.Wash thoroughly after handling.Use with adequate ventilation.Minimize dust generation and accumulation.Avoid contact with eyes, skin,and clothing.Avoid breathing dust.Avoid physical damage to the container.Empty containers retain product residue,(dust and/or solid),and can be dangerous.Do not eat,drink or smoke while handling the product.Keep away from heat.Keep away from sources of ignition.Do not allow water to get into the container.

Conditions for safe storage,including any incompatibilities

Keep away from heat and flame.Store in a cool,dry,well-ventilated away from incompatible substances.Store in a tightly closed container.Keep away from moisture and water.Keep out of the reach of children.Do not use aluminium or galvanised containers.

Specific end uses

No data available

8.Exposure controls/personal protection

Control parameters

Exposure limits No data available

Exposure controls

Appropriate engineering controls

Ensure adequate ventilation,especially in confined areas.Ensure that eyewash stations and safety showers are close to the workstation location.Wherever possible,engineering control measures such as the isolation or enclosure of the process,the introduction of process or equipment changes to minimise release or contact,and the use of properly designed ventilation systems,should be adopted to control hazardous materials at source.

Personal Protective Equipment

Eyes Protection: Wear chemical splash goggles.

Skin Protection: Wear appropriate protective gloves.

Body Protection:Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Respirators Protection:When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.To protect the wearer,respiratory protective equipment must be the correct fit and be used and maintained properly.Large scale emergency use:Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.Small scale/Laboratory use:Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Other Protection: Do not eat,smoke or drink where material is handled,processed or stored.Wash hands carefully before eating or smoking.To maintain good health habits.

9.Physical and chemical properties

Physical State	Crystalline
Colour	White
Odour	Odorless
pH	No data available



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

Melting point/freezing point	215-225°C
Boiling point or initial boiling point and boiling range	No data available
Flash point	Not applicable
Flammability (solid, gas)	No data available
Lower and upper explosion limit/flammability limit	No data available
Vapour pressure	No data available
Relative vapour density	No data available
Density/Relative density	2.126
Solubility	Soluble
Partition coefficient:n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	209°C
Kinematic viscosity	No data available
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	
Hazardous Polymerization	Will not occur.
Hazardous Reactions	None under normal processing.
Conditions to avoid	
Incompatible materials.	Excess heat, Exposure to moist air or water.
Incompatible materials	
Strong oxidizing agents, Strong bases, Chlorine, Nitric acid.	
Hazardous decomposition products	
Under fire conditions toxic fumes may be released.	Nitrogen oxides(NO _x), Sulphur oxides.

11. Toxicological information

Information on toxicological effects	
Acute toxicity:	
CAS#5329-14-6:	
Oral, mouse: LD50=1312mg/kg;	
Oral, rat: LD50=3160mg/kg;	
Oral, guinea pig: LD50=1050mg/kg;	
Skin corrosion/irritation	
CAS#5329-14-6: Skin -rabbit-Severe skin irritation (500 mg/24H);	
Serious eye damage/eye irritation	
CAS#5329-14-6: Eyes -rabbit-Severe eyes irritation(250 µg/24H);	
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

Sulfamic acid-IARC:No component of this product present at levels greater than or equal to 0.1%is identified as probable,possible or confirmed human carcinogen by IARC.

Reproductive toxicity No data available

Specific target organ toxicity -single exposure No data available

Specific target organ toxicity-repeated exposure No data available

Aspiration hazard No data available

Potential Health Effects

Eye:The material can produce chemical burnsto the eye following direct contact.Vapours or mists may be extremely irritating.Direct eye contact with acid corrosives may produce pain,tears,sensitivity to light and burns.

Skin: The material can produce chemical burns following direct contact with the skin.Exposure to sulfamic acid can cause dose and duration dependent injury to the skin including burns.Open cuts,abraded or irritated skin should not be exposed to this material Skin contact with acidic corrosives may result in pain and burns;these may be deep with distinct edges and may heal slowly with the formation of scar tissue.

Ingestion: The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.Ingestion of sulfamic acid precipitates vomiting,diarrhoea,reduced blood pressure and breathing difficulty from swelling of the voice box.It may cause lesion of the stomach at a concentration of more than 10%. Fever following initial recovery may indicate inflammation of the chest and abdominal cavities usually from perforation of gullet and stomach.Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes of the mouth,throat and oesophagus.Immediate pain and difficultiesin swallowing and speaking may also be evident.

Inhalation:Inhalation of sulfamic acid may cause bloody sputum,difficulty in breathing,low blood pressure headache,dizziness,bluish skin colouration and lung congestion.Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis,may incur further disability if excessive concentrations of particulate are inhaled.If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained,proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.Corrosive acids can cause irritation of the respiratory tract,with coughing,choking and mucous membrane damage.

Signs and Symptoms of Exposure

Substance accumulation,in the human body,may occur and may cause some concern following repeated or long-term occupational exposure.Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining.Irritation of airways to lung,with cough,and inflammation of lung tissue often occurs.Long term exposure may cause dermatitis or conjunctivitis.Long term exposure to high dust concentrations may cause changes in lung function i.e.pneumoconiosis.To the best of our knowledge,the chemical,physical,and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS#:CAS#5329-14-6:WO5950000

12.Ecological information



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

Toxicity

CAS#5329-14-6: Fish:Pimephales promelas (fathead minnow):LC50=70.3 mg/L/96 h;

Daphnia:Daphnia magna(Water flea):LC50=71.6 mg/L/48 h;

Persistence and degradability No data available

Bioaccumulative potential No data available

Mobility in soil No data available

Results of PBT and vPvB assessment No data available

Other adverse effects Do not empty into drains.Harmful to aquatic life with long lasting effects

13.Disposal considerations

Waste treatment methods

Waste from Residues /Unused Products: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.Additionally,waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Contaminated packaging:Contaminated packaging material should be treated equivalent to residual chemical. Clean packaging material should be subjected to waste management schemes (recovery recycling,reuse) according to local legislation.

14.Transport Information

	IATA	IMDG	RID/ADR
Proper shipping name	Sulphamic acid	SULPHAMIC ACID	SULPHAMICACID
Hazard class	8	8	8
UN number	UN2967	UN2967	UN2967
Packing group	II	III	III

15.Regulatory Information

Safety,health and environmental regulations/legislation specific for the substance or mixture

Regulatory information:Reference to the local,national,US,EU,CA and international regulations.

Canada

CAS#5329-14-6 is listed on Canada's DSL List

US Federal

Toxic Substance Control Act(TSCA)

CAS#5329-14-6 is listed on the TSCA Inventory.

China

Inventory of Existing Chemical Substances Produced or Imported in China (IECSC)

CAS#5329-14-6 is listed on the IECSC Inventory.

16.Other Information

The above information is based on the data of which we are aware and is believed to be correct as of the data hereof.Since this information may be applied under conditions beyond our control and



Unilong Industry Co., Ltd

Add: No.2000 Shunhua Rd, High-Tech Zone , Jinan City, Shandong Province, China

with which may be unfamiliar and since data made available subsequent to the data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Text of H-code(s) mentioned in Section 3 Eye Irrit. 2: Eye irritation (Category 2)

Skin Irrit. 2: Skin irritation (Category 2)

Aquatic Chronic 3: Chronic aquatic toxicity (Category 3)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects