

Chemical Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: Sulfamic acid.

Other means of identification: /

Recommended use of the chemical and restrictions on use: /

Supplier's details: EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

Emergency phone number: /0086-13770711448

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 1C, Serious Eye Damage/Eye Irritation Category 1, Chronic Aquatic Hazard Category 3.

GHS Label elements, including precautionary statements:



Signal word: Danger

Hazard statement(s): Harmful if swallowed. Causes severe skin burns and eye damage.

Harmful to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:

Wash ... thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/ vapors / spray. Wear protective gloves/protective clothing/eye protection/face protection. Avoid release to the environment.

Response:

IF SWALLOWED: Call a POISON CENTER/doctor/...if you feel unwell. Rinse mouth. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor... Specific treatment (see below). IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. 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/doctor...

Storage:

Store locked up.

Disposal:

Dispose of contents/container to...

Other hazards which do not result in classification: /



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+86258336556 Website:<https://www.epoch-master.com>

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Sulfamic acid	5329-14-6	100

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: /

Indication of immediate medical attention and special treatment needed, if necessary:

For acute or short term repeated exposures to strong acids: Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially. Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling. INGESTION: Immediate dilution (milk or water) within 30 minutes post ingestion is recommended. DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury. SKIN: Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping. EYE: Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide. Water spray or fog - Large fires only.

Special hazards arising from the chemical: Non-combustible. Not considered to be a significant fire risk. 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. May emit acrid smoke and corrosive fumes.

Special protective actions for fire-fighters: 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.



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+86258336556 Website:<https://www.epoch-master.com>

Section 6 ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment and emergency procedures: Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up: Minor Spills: Sweep up or



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.: +86258336556 Website: <https://www.epoch-master.com>

Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Major Spills: Collect recoverable product into labelled containers for recycling. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

Section 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with moisture. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers.

Conditions for safe storage, including any incompatibilities: Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this MSDS.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sulfamic acid	Sulfamic acid	9.5 mg/m ³	100 mg/m ³	630 mg/m ³

Appropriate engineering controls: Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances.

Individual protection measures

Eye/face protection: Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes.

Skin protection: Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber.

Respiratory protection: Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+86258336556 Website: <https://www.epoch-master.com>

Appearance (physical state, colour etc)	White crystal powder
Odour	/
Odour Threshold	/
pH (1%)	/
Melting point/freezing point	200-205°C
Initial boiling point and boiling range	/
Flash point	/
Evaporation rate	/
Flammability (solid, gas)	/
Upper/lower flammability or explosive limits	/
Vapour pressure	/
Vapour density (air=1)	/
Relative density (water=1)	2.15
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	/
Auto-ignition temperature	/
Decomposition temperature	/
Viscosity	/

Section 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Contact with alkaline material liberates heat.

Possibility of hazardous reactions: Inorganic acids neutralise chemical bases (for example: amines and inorganic hydroxides) to form salts - neutralisation can generate dangerously large amounts of heat in small spaces. The dissolution of inorganic acids in water or the dilution of their concentrated solutions with additional water may generate significant heat. The addition of water to inorganic acids often generates sufficient heat in the small region of mixing to cause some of the water to boil explosively. The resulting "bumping" can spatter the acid. Inorganic acids react with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas. Inorganic acids can initiate the polymerisation of certain classes of organic compounds.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Strong bases.

Hazardous decomposition products: nitrogen oxides (NO_x), sulfur oxides.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, swallowed, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects: Acidic corrosives produce respiratory tract irritation with coughing, choking and mucous membrane damage. Symptoms of exposure may include dizziness, headache, nausea and weakness. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. The material can produce chemical burns following direct contact with the skin. The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

Chronic health effects: Repeated or prolonged exposure to acids may result in the erosion of



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+86258336556 Website:<https://www.epoch-master.com>

teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Gastrointestinal disturbances may also occur. Chronic exposures may result in dermatitis and/or conjunctivitis.

Numerical measures of toxicity (such as acute toxicity estimates):

dermal (rat) LD50: >2000 mg/kg

Oral (rat) LD50: ca.1450 mg/kg

Section 12 ECOLOGICAL INFORMATION

Toxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability: Water/Soil: HIGH; Air: HIGH.

Bioaccumulative potential: LOW (LogKOW = -4.3438)

Mobility in soil: LOW (KOC = 6.124)

Other adverse effects: /

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with soda-ash or soda-lime followed by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or Incineration in a licenced apparatus Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 TRANSPORT INFORMATION

UN number: 2967.

UN proper shipping name: SULPHAMIC ACID.

Transport hazard class(es) : 8.

Packing group, if applicable: III.

Environmental hazards: /

Special precautions for user: /

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2012, GA 57-1993, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation Dangerous Chemicals Safety Administrative Regulation.

Section 16 OTHER INFORMATION

References	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
-------------------	--



EPOCH MASTER GLOBAL BUSINESS (JIANGSU)

RM.3-93, TENGFEI BUILDING, NO.88 JIANGMIAO RD., RESEARCH AND INNOVATION PARK, NANJING ZONE, (JIANGSU) PILOT FREE TRADE ZONE, CHINA

Tel.:+86258336556 Website:<https://www.epoch-master.com>

Form Date	15-September-2023
------------------	-------------------

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.