

SECTION 1: Identification of the substance/mixture

1.1. Product identifier

Product form	: Substance
Substance name	: Sulfamic Acid
Formula	: H_3NSO_3
Molecular weight	: 97.09 g/mol
CAS No.	: 62-56-6
Product code	: LW-H3NSO3
Synonyms	: Amidosulfonic acid

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

Use of the substance/mixture	: Laboratory chemicals, Manufacture of substances
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1.3. Emergency telephone number

Emergency number	: 1.800.424.9300 (USA) +1.703.527.3887 (INT)
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SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315


Eye irritation (Category 2A), H319

Acute aquatic toxicity (Category 3), H402

Chronic aquatic toxicity (Category 3), H412

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

2.2. GHS Label elements, including precautionary statements

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	: Wash skin thoroughly after handling.

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- P273 : Avoid release to the environment.
- P280 : Wear protective gloves/ 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.
- P321 : Specific treatment (see supplemental first aid instructions on this label).
- P332 + P313 : If skin irritation occurs: Get medical advice/ attention.
- P337 + P313 : If eye irritation persists: Get medical advice/ attention.
- P362 : Take off contaminated clothing and wash before reuse.
- P501 : Dispose of contents/ container to an approved waste disposal plant.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

SECTION 3: Composition/information on ingredients

3.1. Substances

- Synonyms : Amidosulfonic acid
- Formula : H_3NSO_3
- Molecular Weight : 97.09 g/mol
- CAS-No. : 5329-14-6

Hazardous components

Component	Classification	Concentration
Sulfamic Acid	Skin Irrit. 2; Eye Irrit. 2A; Aquatic Acute 3; Aquatic Chronic 3; H315, H319, H412	90 - 100 %

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

SECTION 4: Description of first aid measures

4.1. Description of first aid measures

- General advice : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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- First-aid measures after skin contact : Wash off with soap and plenty of water. Consult a physician.
- First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x), Sulphur oxides.

5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4. More Information

No data available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal see section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

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Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
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Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

- Body protection : impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection : For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Environmental exposure controls : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance : Form: solid
Color: white
- Odor : No data available
- Odor Threshold : No data available
- pH : 1.5 at 10 g/l at 20 °C (68 °F)
- Melting point/freezing point : Melting point/range: 215 - 225 °C (419 - 437 °F) - dec.
- Initial boiling point and boiling range : No data available
- Flash point : No data available

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Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper/lower flammability or explosive limits	: No data available
Vapor pressure	: 0.008 hPa (0.006 mmHg) at 20 °C (68 °F) 0.025 hPa (0.019 mmHg) at 100 °C (212 °F)
Vapor density	: No data available
Relative density	: 2.151 g/cm ³ at 25 °C (77 °F)
Water solubility	: 213 g/l at 20 °C (68 °F)470 g/l at 80 °C (176 °F)
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: 209 °C (408 °F) -
Viscosity	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

no data available

10.5. Incompatible materials

Strong oxidizing agents, Strong bases

10.6. Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : LD50 Oral - rat - 3,160 mg/kg

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	(OECD Test Guideline 401)
	LD50 Oral - mouse - 1,312 mg/kg
	Remarks: Behavioral: Excitement. Behavioral: Altered sleep time (including change in righting reflex).
	LD50 Oral - guinea pig - 1,050 mg/kg
	Remarks: Behavioral: Excitement. Behavioral: Altered sleep time (including change in righting reflex).
	Inhalation: no data available
	Dermal: no data available
	no data available
Skin corrosion/irritation	: Skin - rabbit
	Result: Moderate skin irritation (OECD Test Guideline 404)
	Skin - Human
	Result: Mild skin irritation
Serious eye damage/irritation	: Eyes - rabbit
	Result: Moderate eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitization	: no data available
Germ cell mutagenicity	: no data available
Carcinogenicity	
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.
ACGIH:	: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	: no data available
Specific target organ toxicity (single exposure)	: No data available
Specific target organ toxicity	: No data available

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(repeated exposure)

Aspiration hazard : No data available

Additional Information : RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Symptoms and signs of poisoning are:, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Inhalation may provoke the following symptoms:, spasm, inflammation and edema of the bronchi, spasm, inflammation and edema of the larynx, Aspiration or inhalation may cause chemical pneumonitis.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish : static test LC50 - Pimephales promelas (fathead minnow) - 70.3 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates : Remarks: no data available

Toxicity to algae : Remarks: no data available

12.2. Persistence and degradability

Biodegradability : Result: - Not readily biodegradable.

12.3. Bioaccumulative potential : No data available

12.3. Mobility in soil : No data available

12.4. Results of PBT and vPvB assessment : PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6. Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product : Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging : Dispose of as unused product.

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SECTION 14: Transport information

DOT (US)

UN number : 2967
Class : 8
Packing group : III
Proper shipping name : Sulfamic acid
Reportable Quantity (RQ) : no data available
Marine pollutant : No
Poison Inhalation Hazard : No

IMDG

UN number : 2967
Class : 8
Packing group : III
EMS-No : F-A, S-B
Proper shipping name : Sulfamic acid
Marine pollutant : No

IATA

UN number : 2967
Class : 8
Packing group : III
Proper shipping name : Sulfamic acid

SECTION 15: Regulatory information

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Sulfamic Acid	CAS-No.	Revision Date
	5329-14-6	2007-03-01

Massachusetts Right To Know Components

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No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Sulfamic Acid	CAS-No.	Revision Date
	5329-14-6	2007-03-01

New Jersey Right To Know Components

Sulfamic Acid	CAS-No.	Revision Date
	5329-14-6	2007-03-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Aquatic Acute	: Acute aquatic toxicity.
Aquatic Chronic	: Chronic aquatic toxicity.
Eye Irrit.	: Eye irritation.
H315	: Causes skin irritation.
H319	: Causes serious eye irritation.
H402	: Harmful to aquatic life.

HMIS Rating

Health Hazard	: 2
Chronic Health Hazard	:
Flammability	: 0
Physical Hazard	: 0

NFPA Rating

Health hazard	: 2
Fire Hazard	: 0
Reactivity Hazard	: 0

Further Information

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