

Safety Data Sheet (SDS)

Section 1: Identification

1.1 Product Identification

Product Name: 3-((2-Aminoethyl)-dimethylammonio)propane-1-sulfonate

Product Number: Sigma-1492025184

Brand: Sigma

CAS Number: 78276-19-4

EC Number: Not specified

Molecular Formula: $C_7H_{18}N_2O_3S$

Molecular Weight: 210.30 g/mol

Website: [Sigma Chemical](#)

1.2 Supplier Details

Company Name: Sigma Chemical Co., Ltd.

Address: Room 2-1-2301, Jiahe Xinxing, No.130, Shandong Road, Shibei

District, Qingdao City, Shandong Province, China

Phone Number: +8618661891880

Email: chemweb3@foxmail.com

Business Hours:

Monday to Friday: 9:00 AM - 6:00 PM

Saturday: 9:00 AM - 1:00 PM

Sunday: Closed

1.3 Emergency Contact Number

Emergency Contact: +8618661891880

1.4 Recommended Use and Restrictions

Recommended Use: For research and development purposes only. Not for use as a drug, household product, or in any therapeutic applications.

Section 2: Hazard Identification

2.1 GHS Classification

Acute Toxicity:

Oral: Category 4, H302 (Harmful if swallowed)

Inhalation: Category 4, H332 (Harmful if inhaled)

Specific Target Organ Toxicity (Repeated Exposure):

Inhalation: Category 2, H373 (May cause damage to organs through prolonged or repeated exposure)

2.2 GHS Label Elements

Pictogram: Warning

Signal Word: Warning

Hazard Statements:

H302: Harmful if swallowed

H332: Harmful if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

Prevention:

P260: Do not breathe dust/fume/gas/mist/vapours/spray

P264: Wash thoroughly after handling

P270: Do not eat, drink, or smoke when using this product

2.3 Physical and Chemical Hazards

Physical and Chemical Hazards: Non-flammable. Ignition sources may release hazardous substances.

2.4 Health Hazards

Health Hazards:

H302: Harmful if swallowed

H332: Harmful if inhaled

H373: May cause damage to organs through prolonged or repeated exposure

2.5 Environmental Hazards

Environmental Hazards: No environmental hazards identified based on current information.

Section 3: Composition/Information on Ingredients

3.1 Substance

Synonyms: 3-((2-Aminoethyl)-dimethylammonio)propane-1-sulfonate,

3-[(2-aminoethyl)dimethylazaniumyl]propane-1-sulfonate

Molecular Formula: C₇H₁₈N₂O₃S

Molecular Weight: 210.30 g/mol

CAS Number: 78276-19-4

EC Number: Not specified

Hazardous Components:

Component: 3-((2-Aminoethyl)-dimethylammonio)propane-1-sulfonate

Classification:

Acute Toxicity: Category 4 (Oral), H302

Acute Toxicity: Category 4 (Inhalation), H332

Specific Target Organ Toxicity (Repeated Exposure): Category 2, H373

Section 4: First Aid Measures

4.1 First Aid Measures

Inhalation: Remove victim to fresh air. If feeling unwell, call a POISON

CENTER/doctor.

Skin Contact: Immediately wash with plenty of water for at least 15 minutes.

Remove contaminated clothing and wash before reuse. Get medical attention if irritation persists.

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes.

Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if eye irritation persists.

Ingestion: Do NOT induce vomiting. Rinse mouth with water. Call a POISON CENTER/doctor if feeling unwell.

4.2 Most Important Symptoms and Effects

Symptoms: Difficulty in breathing. Symptoms of overexposure may include headache, dizziness, tiredness, nausea, and vomiting.

4.3 Immediate Medical Attention and Special Treatment

Medical Treatment: Treat symptomatically.

Section 5: Firefighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Agents: Use fire extinguishing methods suitable for the surrounding environment. Solid water stream may be used.

5.2 Specific Hazards Arising from the Chemical

Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO₂), Gaseous hydrogen fluoride (HF)

5.3 Firefighting Precautions

Protective Equipment: Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective clothing.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency

Procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment as required. Ground all equipment used when handling the product. Avoid contact with skin, eyes, or clothing. Remove all sources of ignition. Take precautionary measures against static discharge.

Environmental Precautions: Prevent seepage into sewage systems, workpits, and surface or ground water.

6.2 Methods and Materials for Containment and Clean-Up

Containment: For small leaks, absorb with inert absorbent material (e.g., sand, diatomite, acid binders, universal binders) or collect in a tightly sealable container. For large leaks, enclose with banks to prevent outflow and lead the leakage to a safe place for disposal.

Clean-Up: Dispose of collected material in accordance with local/regional/national/international regulations.

6.3 Reference to Other Sections

Other Sections: See Section 8 for personal protection equipment and Section 13 for disposal methods.

Section 7: Handling and Storage

7.1 Handling Precautions

Handling: Ensure adequate ventilation. Wear personal protective equipment/face protection. Use spark-proof tools and explosion-proof equipment. Keep away from open flames, hot surfaces, and sources of ignition. Avoid contact with skin, eyes, or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid ingestion and inhalation. Take precautionary measures against static discharge.

7.2 Storage Conditions

Storage: Store in a dry, cool, and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a non-flammable area. Keep container tightly closed in a dry and well-ventilated place. Incompatible materials include strong oxidizing agents, strong acids, strong bases, strong reducing agents, and water.

Section 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure Limits: No occupational exposure limits established by regional regulatory authorities.

8.2 Exposure Controls

Engineering Measures: Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment:

Respiratory Protection: Use a NIOSH-approved respirator if exposure limits are exceeded.

Eye Protection: Wear chemical safety goggles.

Skin Protection: Wear chemical-resistant gloves and protective clothing.

Other Protective Equipment: Use face shields and other appropriate protective gear as necessary.

Section 9: Physical and Chemical Properties

Appearance: White to light-yellow solid

Odor: Odorless

Melting Point: Decomposes upon heating

Boiling Point: Decomposes upon heating

Solubility in Water: Highly soluble (forms clear aqueous solutions)

Solubility in Organic Solvents: Practically insoluble in nonpolar solvents

pH (Aqueous Solution): Weakly acidic

Partition Coefficient (Log P): Very low (highly hydrophilic)

Stability: Stable under normal conditions

Hazardous Decomposition Products: None reported

Section 10: Stability and Reactivity

Stability: Stable under normal conditions

Reactivity: Non-reactive with common materials

Hazardous Decomposition Products: None reported

Conditions to Avoid: Strong heating, strong oxidizing agents, strong acids, strong bases, strong reducing agents

Section 11: Toxicological Information

Acute Toxicity:

Oral: Category 4, H302 (Harmful if swallowed)

Inhalation: Category 4, H332 (Harmful if inhaled)

Specific Target Organ Toxicity (Repeated Exposure):

Inhalation: Category 2, H373 (May cause damage to organs through prolonged or repeated exposure)

Irritation: May cause skin and eye irritation

Sensitization: No sensitization data available

Section 12: Ecological Information

Ecological Hazards: No significant ecological hazards identified based on current information.

Section 13: Disposal Considerations

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Recycling: Follow local regulations for recycling and disposal of chemical waste.

Section 14: Transport Information

UN Number: Not applicable

Hazard Class: Not applicable

Packing Group: Not applicable

Section 15: Regulatory Information

Regulatory Information: Complies with relevant national and international regulations for chemical substances.