

Safety Data Sheet (SDS)

Section 1: Identification

- **Product Identification**
 - Product Name: 2-Amino-6-fluorobenzonitrile
 - Product Number: (assign a unique number if needed)
 - Brand: Sigma
 - CAS Number: 77326-36-4
 - EC Number: Not specified
 - Molecular Formula: C₇H₅FN₂
 - Molecular Weight: 136.13 g/mol
 - Website: Sigma Chemical
- **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: 9:00AM - 6:00PM, Saturday: 9:00AM - 1:00PM, Sunday: Closed
- **Emergency Contact Number**
 - Emergency Contact: +8618661891880
- **Recommended Use and Restrictions**
 - Recommended Use: For research and development purposes only. Not for use as a drug, household product, or in any other application.

Section 2: Hazard Identification

- **GHS Classification**
 - Acute Toxicity:
 - Oral: Category 4, H302 (Harmful if swallowed)

- Inhalation: Category 4, H332 (Harmful if inhaled)
 - Skin Corrosion/Irritation: Category 2, H315 (Causes skin irritation)
 - Serious Eye Damage/Eye Irritation: Category 2, H319 (Causes serious eye irritation)
 - Specific Target Organ Toxicity (Single Exposure): Category 3, H335 (May cause respiratory irritation)
- **GHS Label Elements**
 - Pictogram: Warning
 - Signal Word: Warning
 - Hazard Statements:
 - H302: Harmful if swallowed
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H332: Harmful if inhaled
 - H335: May cause respiratory irritation
 - Precautionary Statements:
 - Prevention:
 - P261: Avoid breathing dust/fume/gas/mist/vapors/spray
 - P264: Wash thoroughly after handling
 - P270: Do not eat, drink, or smoke when using this product
 - Response:
 - P301+P312+P330: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 - P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- P312: Call a POISON CENTER/doctor if you feel unwell.
- Storage:
 - P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- Disposal:
 - P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3: Composition/Information on Ingredients

- **Substance**
 - Synonyms: 2-Amino-6-fluorobenzonitrile, 2-Amino-6-fluorobenzonitrile
 - Molecular Formula: C₇H₅FN₂
 - Molecular Weight: 136.13 g/mol
 - CAS Number: 77326-36-4
 - EC Number: Not specified
 - Hazardous Components:
 - Component: 2-Amino-6-fluorobenzonitrile
 - Classification:
 - Acute Toxicity: Category 4 (Oral), H302
 - Acute Toxicity: Category 4 (Inhalation), H332
 - Skin Corrosion/Irritation: Category 2, H315
 - Serious Eye Damage/Eye Irritation: Category 2, H319
 - Specific Target Organ Toxicity (Single Exposure): Category 3, H335

Section 4: 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.

Section 5: Firefighting Measures

- **Extinguishing Media**
 - Suitable Extinguishing Agents: Use fire extinguishing methods suitable for the surrounding environment. Solid water stream may be used.
- **Specific Hazards Arising from the Chemical**
 - Hazardous Combustion Products: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x)
- **Firefighting Precautions**
 - Protective Equipment: Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

Section 6: Accidental Release Measures

- **Personal Precautions, Protective Equipment, and Emergency Procedures**
 - 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 groundwater.
- **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.

Section 7: Handling and Storage

- **Handling Precautions**
 - 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.
- **Storage Conditions**
 - Store in a dry, cool, and well-ventilated place. Keep container tightly closed. Keep away from heat, sparks, and flame. Store in a 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

- **Control Parameters**
 - Exposure Limits: No occupational exposure limits established by regional regulatory bodies.
- **Exposure Controls**
 - Engineering Measures: Ensure adequate ventilation, especially in confined areas.

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- **Personal Protective Equipment**
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 - Respiratory Protection: Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
 - Eye Protection: Protective eyeglasses or chemical safety goggles.
 - Hand Protection: Chemical-resistant gloves (e.g., nitrile rubber).
 - Skin and Body Protection: Long-sleeved clothing.

Section 9: Physical and Chemical Properties

- Appearance: Cream
- Physical State: Solid Crystalline
- Odor: No information available
- Melting Point/Range: 125 - 129 °C / 257 - 264.2 °F
- Boiling Point/Range: No information available
- Flash Point: No information available
- Solubility: Insoluble in water

Section 10: Stability and Reactivity

- Stability: Stable under normal conditions.
- Hazardous Reactions: None under normal processing.
- Conditions to Avoid: Extremes of temperature and direct sunlight.
- Incompatible Materials: Strong oxidizing agents.
- Hazardous Decomposition Products: Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x)

Section 11: Toxicological Information

- Acute Toxicity:
- Oral: Category 4, H302
- Inhalation: Category 4, H332
- Skin Irritation: Category 2, H315

- Eye Irritation: Category 2, H319
- Respiratory Irritation: Category 3, H335
- Other toxicological information: No data available.

Section 12: Ecological Information

- Ecotoxicity: No substances known to be hazardous to the environment.
- Persistence and Degradability: Insoluble in water.
- Bioaccumulative Potential: May have some potential to bioaccumulate.
- Mobility in Soil: Spillage unlikely to penetrate soil. Is not likely mobile in the environment due to its low water solubility.
- Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors.

Section 13: Disposal Considerations

- Waste from Residues/Unused Products: Dispose of in accordance with local/regional/national/international regulations.
- Contaminated Packaging: Dispose of this container to hazardous or special waste collection point.

Section 14: Transport Information

- UN Number: UN3439
- Proper Shipping Name: NITRILES, SOLID, TOXIC, N.O.S.
- Technical Shipping Name: 2-Amino-6-fluorobenzonitrile
- Hazard Class: 6.1

- Packing Group: III

Section 15: Regulatory Information

- International Inventories: Listed in various international inventories (e.g., TSCA, EINECS, IECSC).
 - National Regulations: Comply with local regulations.
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