Allyl Methacrylate MSDS

1. Product Name and Identification

Product Name: Allyl Methacrylate
Synonyms: 2-Propenoic acid, 2-methyl-, allyl ester
CAS Number: 96-05-9
Recommended Uses: Intermediate in chemical synthesis, Polymer production, Adhesives
Manufacturer/Distributor Details:

- **Name:** [Insert Manufacturer/Distributor Name]
- **Address:** [Insert Address]
- **Emergency Contact Number:** [Insert Contact Number]

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2. Composition/Ingredients

Substance/Preparation: Substance
Chemical Name: Allyl Methacrylate
CAS Number: 96-05-9
Percent Composition: ≥ 99%

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3. Hazards Identification

Classification of the Substance or Mixture:

- **Flammable Liquids:** Category 3
- **Skin Sensitization:** Category 1
- **Serious Eye Damage/Irritation:** Category 2A
- **Specific Target Organ Toxicity (Single Exposure):** Category 3 (Respiratory Irritation)

Hazard Statements:

- Flammable liquid and vapor.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- May cause respiratory irritation.

Precautionary Statements:

- Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

- Wear protective gloves, protective clothing, and eye protection.
- Avoid breathing vapors or mist.
- Use only in a well-ventilated area.

Pictograms:

- [Insert placeholder for flame, exclamation mark]

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4. First Aid Measures

General Information: Seek medical attention for any symptoms of significant exposure.

Eyes: Rinse cautiously with running water for several minutes. Remove contact lenses if applicable and easy to do. Continue rinsing and get medical help.

Skin: Remove any contaminated clothing. Rinse the skin thoroughly with water and soap. If irritation or a rash develops, seek medical advice.

Inhalation: Move the affected person to fresh air. If breathing difficulties occur, seek medical assistance immediately.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek immediate medical attention.

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5. Handling and Storage

Handling:

- Use with care in well-ventilated environments.
- Avoid contact with skin, eyes, and clothing.
- Keep away from heat sources, sparks, and flames.

Storage:

- Store in tightly closed containers in a cool, dry, and well-ventilated space.
- Keep away from incompatible substances like strong oxidizers, acids, and bases.
- Protect the material from direct sunlight.

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6. Exposure Controls/Personal Protection

Engineering Controls:

- Ensure the workspace has adequate ventilation or a fume hood.

Personal Protection Equipment (PPE):

- **Eye Protection:** Safety goggles or safety glasses with side shields.
- **Skin Protection:** Use chemical-resistant gloves (e.g., nitrile or neoprene).
- **Respiratory Protection:** Use an approved respirator in areas with poor ventilation.
- **Other:** Wear appropriate protective clothing to prevent prolonged skin contact.

Hygiene Measures:

- Wash hands and other exposed areas thoroughly after handling.
- Do not eat, drink, or smoke while working with the material.

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7. Physical and Chemical Properties

- **Appearance:** Clear, colorless liquid
- **Odor:** Ester-like, characteristic odor
- **Odor Threshold:** Not determined
- **pH:** Not applicable
- **Melting Point:** -75°C
- **Boiling Point:** Approx. 140°C at atmospheric pressure
- **Flash Point:** 50°C (closed cup)
- **Explosive Limits:** 2.2% (lower) to 12.5% (upper) by volume
- **Vapor Pressure:** Approx. 2 mmHg at 20°C
- **Density:** 0.93 g/cm³ at 25°C
- **Solubility:** Slightly soluble in water, miscible with most organic solvents
- **Molecular Formula:** C7H10O2
- **Viscosity:** Low viscosity liquid

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8. Stability and Reactivity

Chemical Stability: Stable under recommended storage conditions.

Conditions to Avoid: Excessive heat, ignition sources, and prolonged exposure to air.

Materials to Avoid: Strong oxidizing agents, acids, and bases.

Hazardous Decomposition Products: Upon decomposition, it may release carbon oxides (CO and CO_2) and other toxic fumes.

Polymerization: May polymerize under certain conditions (e.g., exposure to heat, sunlight, or absence of inhibitor).

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9. Toxicological Information

Acute Toxicity:

- Oral LD50 (Rat): Approx. 1000 mg/kg (moderate toxicity)

Skin Corrosion/Irritation: May cause irritation upon prolonged exposure. May trigger skin sensitization.

Eye Damage/Irritation: Causes severe eye irritation. Prolonged exposure may damage eyesight.

Respiratory/Sensitization: Vapors may irritate the respiratory tract.

Chronic Effects: Repeated or prolonged exposure may cause dermatitis or other allergic reactions.

Carcinogenicity: Not classified as carcinogenic by IARC, NTP, or OSHA.

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10. Disposal Considerations

Waste Disposal Methods:

- Dispose of unused product and its container as hazardous waste according to local, regional, or national regulations.
- Do not release material into drains, waterways, or soil.

Packaging Disposal:

- Thoroughly clean empty containers before reuse, recycling, or disposal. Ensure containers are disposed of safely to prevent accidental reuse.
