

Hexamine MSDS

Product Name and Identification

Product Name: [Hexamine](#)

Chemical Formula: C₆H₁₂N₄

CAS Number: 100-97-0

Intended Use: Used in the production of resins and plastics, as a fuel, and as a curing agent in various industrial applications.

Composition/Ingredients

Chemical Composition:

- **Substance Name:** Hexamine (Hexamethylenetetramine)
- **Purity:** ≥ 99%
- **Hazardous Components:** None under standard conditions, but decomposition may produce harmful fumes.

Hazards Identification

Emergency Overview:

- **Physical Hazards:**
 - Combustible solid.
 - May form dust-air mixtures that can explode.
- **Health Hazards:**
 - May irritate skin, eyes, and respiratory tract.
 - Harmful if swallowed in significant quantities.
- **Environmental Hazards:**
 - Avoid release into waterways to prevent potential environmental harm.

Precautionary Statements:

- Keep away from heat, sparks, and open flames.
- Avoid inhalation of dust.
- Wear protective equipment.

First Aid Measures

Eye Contact:

- Flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if applicable, and continue rinsing. Seek medical attention if irritation develops or persists.

Skin Contact:

- Immediately wash skin with soap and water. Remove contaminated clothing and rinse thoroughly. If irritation develops, seek medical advice.

Inhalation:

- Move the affected person to fresh air immediately. If symptoms persist, such as difficulty breathing, seek medical attention.

Ingestion:

- Do not induce vomiting. Rinse mouth with water and seek medical assistance. Call a poison control center or physician for guidance.

Handling and Storage

Handling:

- Avoid the formation of dust. Handle in a well-ventilated area.
- Keep away from heat, sparks, and flames.
- Wash hands thoroughly after using this material.

Storage:

- Store in a tightly sealed container in a cool, dry, and well-ventilated area.
- Keep away from incompatible substances, such as strong oxidizing agents or acids.

Exposure Controls/Personal Protection

Exposure Limits:

- No specific limit values established, but minimize exposure to avoid irritation.

Engineering Controls:

- Use local exhaust ventilation to reduce dust exposure.

Personal Protective Equipment (PPE):

- **Eye Protection:** Wear chemical safety goggles or a face shield.
- **Skin Protection:** Use chemical-resistant gloves and protective clothing.

- **Respiratory Protection:** Use a dust mask or an approved respirator if dust is generated.

Physical and Chemical Properties

- **Appearance:** White crystalline solid
- **Odor:** Slightly ammoniacal
- **Melting Point:** 230-280°C (decomposes)
- **Boiling Point:** Not applicable (sublimation occurs).
- **Flash Point:** Not determined
- **Solubility:** Soluble in water and many organic solvents
- **Vapor Pressure:** Negligible under normal conditions

Stability and Reactivity

Chemical Stability:

- Stable under recommended storage and handling conditions.

Reactivity:

- Reacts with strong acids, resulting in the formation of formaldehyde.

Conditions to Avoid:

- Avoid high temperatures, open flames, and sources of ignition.

Hazardous Decomposition Products:

- When heated or exposed to flame, may produce toxic fumes, including ammonia and formaldehyde.

Toxicological Information

- **Acute Toxicity:**
 - Can cause mild irritation to skin, eyes, and mucous membranes.
 - LD50 (oral, rat): Approximately 920 mg/kg (may vary based on source data).
- **Skin/Eye Irritation:**
 - May cause mild to moderate irritation.
- **Chronic Effects:**
 - Prolonged inhalation or skin exposure may lead to sensitization in susceptible individuals.

Disposal Considerations

- Dispose of material according to local, state, and federal regulations.
- Do not dispose of in wastewater or release into the environment.
- Contaminated packaging should also be disposed of following appropriate regulations.

Note: The information provided in this document is based on our current understanding and is intended for guidance only. Always ensure compliance with applicable laws and regulations.