

# Pyrogallic Acid MSDS

## Product Name and Identification

**Product Name:** [Pyrogallic Acid](#)

**Synonyms:** Pyrogallol, Benzene-1,2,3-triol

**CAS Number:** 87-66-1

**Chemical Formula:** C<sub>6</sub>H<sub>6</sub>O<sub>3</sub>

**Product Use:** Used as a developer in photography, in hair dye formulations, and as a reagent in laboratory analyses.

**Manufacturer Information:** [Provide specific details if applicable]

---

## Composition/Ingredients

**Chemical Name:** Pyrogallic Acid

**Concentration:** >98%

**CAS Number:** 87-66-1

**EC Number:** 201-762-9

**Molecular Weight:** 126.11 g/mol

---

## Hazards Identification

### Classification of the Substance:

- Acute Toxicity (Oral): Category 3
- Skin Corrosion/Irritation: Category 2
- Eye Damage/Irritation: Category 2A
- Specific Target Organ Toxicity (Repeated Exposure): Category 2

### Labeling:

- **Signal Word:** Danger
- **Hazard Statements:**
  - H301: Toxic if swallowed.
  - H315: Causes skin irritation.
  - H319: Causes serious eye irritation.
  - H373: May cause damage to organs through prolonged or repeated exposure.
- **Precautionary Statements:**
  - P260: Do not breathe dust.
  - P280: Wear protective gloves, clothing, and eye/face protection.

- P301 + P310: If swallowed, immediately call a poison center or doctor.
- P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses if present.

**Additional Hazards:**

Dust may cause respiratory irritation and potential oxidative tissue damage upon prolonged exposure.

---

## First Aid Measures

**General Advice:** Remove exposed individuals to safety if adverse symptoms occur, and seek medical attention immediately.

- **Eye Contact:** Rinse eyes cautiously with water for at least 15 minutes. Remove contact lenses, if applicable. Seek medical attention if discomfort persists.
- **Skin Contact:** Wash exposed skin thoroughly with soap and water. Remove and clean contaminated clothing. Seek medical advice if irritation or rash develops.
- **Inhalation:** Move affected individual to fresh air. If breathing becomes difficult, call a doctor immediately.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting unless directed by a healthcare professional. Seek medical attention promptly.

**Key Symptoms and Effects:**

Pyrogalllic Acid exposure can lead to irritation of the skin, eyes, and respiratory system. Prolonged contact may affect blood or liver function depending on exposure levels.

---

## Handling and Storage

**Handling:**

- Avoid inhalation of dust and prevent contact with skin and eyes.
- Use with adequate ventilation and minimize dust generation.
- Wear proper personal protective equipment (PPE) during handling.

**Storage:**

- Store in a tightly closed container in a cool, dry, and well-ventilated area.
- Keep away from heat sources, moisture, and oxidizing agents.
- Protect from direct sunlight to prevent decomposition.

**Specific Storage Conditions:**

Maintain storage at temperatures below 30°C and avoid excessive exposure to air or humidity.

---

## Exposure Controls/Personal Protection

**Exposure Limits:**

- OSHA PEL-TWA (Permissible Exposure Limit): Not established.
- ACGIH TLV (Threshold Limit Value): 0.1 mg/m<sup>3</sup> (inhalable fraction).

**Engineering Controls:**

Local exhaust ventilation or other engineering controls are recommended to keep airborne exposure below recommended limits.

**Personal Protective Equipment (PPE):**

- **Eye Protection:** Safety goggles or face shield.
  - **Skin Protection:** Chemical-resistant gloves and long-sleeved clothing.
  - **Respiratory Protection:** Use a properly fitted NIOSH-approved respirator if exposure limits are exceeded.
  - **General Hygiene Measures:** Wash hands thoroughly after handling. Avoid eating, drinking, or smoking near the substance.
- 

## Physical and Chemical Properties

- **Physical State:** Solid
  - **Appearance:** White to pale brown crystalline powder
  - **Odor:** Slight characteristic odor
  - **Melting Point:** 131-134°C (268-273°F)
  - **Boiling Point:** Decomposes before boiling
  - **Density:** Approximately 1.46 g/cm<sup>3</sup>
  - **Solubility:** Soluble in water and ethanol, slightly soluble in ether
  - **pH:** Acidic in aqueous solutions
  - **Vapor Pressure:** Negligible at standard temperature
  - **Flash Point:** Not applicable
  - **Autoignition Temperature:** Not applicable
- 

## Stability and Reactivity

**Chemical Stability:** Stable under recommended storage and handling conditions. Decomposes under prolonged exposure to air.

**Conditions to Avoid:** Exposure to excessive air, light, heat, and moisture.

**Materials to Avoid:** Reacts violently with strong oxidizers, alkalis, and acids.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, and other toxic fumes under combustion.

**Reactivity:** May react exothermically with some chemicals, especially oxidizing materials.

---

## Toxicological Information

### Routes of Exposure:

- Skin contact
- Eye contact
- Dust inhalation or ingestion

### Acute Toxicity:

- **Oral LD50 (Rat):** 300 mg/kg (toxic)
- **Dermal LD50 (Rabbit):** > 200 mg/kg

**Chronic Effects:** Prolonged or repeated exposure may lead to blood abnormalities and organ damage.

**Irritation:** Can cause moderate to severe irritation to skin, eyes, and respiratory tract.

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

**Other Health Effects:** May cause hemolytic anemia and oxidative stress with significant exposure.

---

## Disposal Considerations

### General Disposal Guidelines:

Dispose of product in accordance with local, national, and international regulations.

### Specific Disposal Instructions:

- Do not release into waterways or sewer systems.
- Material should be disposed of via incineration in a licensed waste facility.
- Contaminated packaging should be treated similarly unless thoroughly cleaned.

**Recycling Information:** Recovery and reuse should align with applicable legal and regulatory standards.