

2-Ethyl Anthraquinone MSDS

Product Name and Identification

Product Name: [2-Ethyl Anthraquinone](#)

Synonyms: 2-EAQ

CAS Number: 84-51-5

Chemical Formula: C₁₆H₁₂O₂

Product Use: Commonly used as an intermediate in the production of hydrogen peroxide and other industrial applications.

Manufacturer Information: [Provide specific details if applicable]

Composition/Ingredients

Chemical Name: 2-Ethyl Anthraquinone

Concentration: 100%

CAS Number: 84-51-5

EC Number: 201-535-4

Molecular Weight: 236.27 g/mol

Hazards Identification

Classification of the Substance:

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

Labeling:

- **Signal Word:** Warning
- **Hazard Statements:**
 - H315: Causes skin irritation.
 - H319: Causes serious eye irritation.
 - H373: May cause damage to organs through prolonged or repeated exposure.
- **Precautionary Statements:**
 - P264: Wash hands thoroughly after handling.
 - P280: Wear protective gloves, clothing, and eye protection.
 - P314: Get medical advice if you feel unwell.

Additional Hazards:

Handling may produce dust which can irritate respiratory passages.

First Aid Measures

General Advice: Seek medical attention if symptoms arise or persist.

- **Eye Contact:** Flush eyes with plenty of water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses if present. Seek medical attention if irritation develops or persists.
- **Skin Contact:** Wash the affected area with soap and water. Remove and clean all contaminated clothing. Contact a physician if irritation continues.
- **Inhalation:** Move to fresh air. If symptoms such as difficulty breathing persist, seek immediate medical attention.
- **Ingestion:** Do not induce vomiting. Rinse mouth with water and call a doctor immediately.

Key Symptoms and Effects: Exposure may irritate the skin, eyes, or respiratory system. Repeated exposure may cause damage to certain organs.

Handling and Storage

Handling:

- Avoid creating or breathing in dust.
- Minimize contact with skin and eyes.
- Use in a well-ventilated area with appropriate safety measures in place.

Storage:

- Store in a cool, dry, and well-ventilated area.
- Keep containers tightly sealed and away from ignition sources.
- Keep separated from incompatible materials like strong oxidizing agents.

Specific Storage Conditions: Protect from direct sunlight and avoid high humidity.

Exposure Controls/Personal Protection

Exposure Limits:

No specific occupational exposure limits set, but minimize exposure by following good industrial hygiene practices.

Engineering Controls:

Provide local exhaust ventilation to control airborne concentrations.

Personal Protective Equipment (PPE):

- **Eye Protection:** Wear safety goggles or face shields.
 - **Skin Protection:** Utilize chemical-resistant gloves and long-sleeved clothing.
 - **Respiratory Protection:** Use a NIOSH-approved respirator in poorly ventilated areas or if dust is generated.
 - **General Hygiene Measures:** Wash hands thoroughly after handling. Do not eat, drink, or smoke during use.
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Physical and Chemical Properties

- **Physical State:** Solid
 - **Appearance:** Yellow to pale orange crystalline powder
 - **Odor:** Faint characteristic odor
 - **Melting Point:** 108-113°C (226.4-235.4°F)
 - **Boiling Point:** Not applicable (sublimes at high temperatures)
 - **Density:** Approximately 1.32 g/cm³
 - **Solubility:** Practically insoluble in water; soluble in organic solvents such as toluene and acetone.
 - **Flash Point:** >150°C (302°F)
 - **Vapor Pressure:** Negligible at 25°C
 - **Molecular Weight:** 236.27 g/mol
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Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures when stored appropriately.

Conditions to Avoid:

Exposure to extreme heat, open flames, and strong oxidizing agents.

Materials to Avoid:

Strong acids, bases, and oxidizers.

Hazardous Decomposition Products:

Thermal decomposition can release carbon monoxide, carbon dioxide, and other organic compounds.

Reactivity: Non-reactive under standard storage and use conditions.

Toxicological Information

Routes of Exposure:

- Dermal (skin) contact
- Eye contact
- Dust inhalation
- Accidental ingestion

Acute Toxicity:

- **Oral LD50 (Rat):** > 5,000 mg/kg (low acute toxicity)
- **Dermal LD50 (Rabbit):** Not established

Chronic Effects: Prolonged exposure to significant levels may result in adverse organ effects.

Irritation: May cause eye and skin irritation.

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

Other Health Effects: Repeated prolonged exposure can damage the liver or other internal organs.

Disposal Considerations

General Disposal Guidance:

Dispose of this substance and its container in accordance with all local, regional, and national environmental regulations.

Specific Disposal Instructions:

- Do not discharge into waterways, sewers, or soils.
- Incinerate in a licensed waste facility or deliver to an appropriate chemical waste disposal service.
- Contaminated packaging must be treated as chemical waste unless thoroughly cleaned.

Recycling Information: Consider recycling unused chemical if possible, following relevant regulatory guidelines.