

Acetyl Tributyl Citrate (ATBC) MSDS

1. Product Name and Identification

Product Name: [Acetyl Tributyl Citrate \(ATBC\)](#)

Synonyms: Tributyl 2-Acetylcitrate, Tributyl acetylcitrate

CAS Number: 77-90-7

Molecular Formula: C₂₀H₃₄O₈

Manufacturer's Name: [Fill in as Applicable]

Emergency Contact: [Fill in Emergency Number]

2. Composition/Ingredients

- **Chemical Name:** Acetyl Tributyl Citrate
- **CAS Number:** 77-90-7
- **Purity:** ≥ 99%
- **EC Number:** 201-067-0
- **Hazardous Components:** None within regulatory classification limits.

3. Hazards Identification

Classification:

- Not classified as hazardous under GHS guidelines.
- May cause mild irritation to eyes or skin upon prolonged exposure.

Label Elements:

- **Signal Word:** None required
- **Hazard Statements:** Not hazardous under normal handling.
- **Precautionary Statements:**
 - Avoid inhalation of vapor or mist.
 - Avoid direct contact with eyes and skin.

Potential Health Effects:

- **Eye Contact:** May cause mild temporary irritation.
- **Skin Contact:** Prolonged contact may result in mild irritation or redness.
- **Inhalation:** High concentrations of mist or vapor may cause temporary respiratory discomfort.
- **Ingestion:** May cause minor gastrointestinal discomfort if ingested in large amounts.

4. First Aid Measures

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present. If irritation develops, seek medical advice.

Skin: Wash with soap and water. If irritation occurs, consult a physician.

Inhalation: Move the person to fresh air. If symptoms persist, seek medical attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If discomfort persists, contact a medical professional.

5. Handling and Storage

Handling:

- Use in well-ventilated areas.
- Avoid inhalation of mist or vapor.
- Minimize direct contact with eyes and skin.

Storage:

- Store in a cool, dry, and well-ventilated area.
- Keep containers tightly closed when not in use.
- Avoid exposure to heat, moisture, or sunlight.

6. Exposure Controls/Personal Protection

Exposure Limits: No specific occupational limits established.

Engineering Controls:

- Ensure adequate ventilation or local exhaust to keep vapor concentration low.

Personal Protective Equipment (PPE):

- **Eye Protection:** Safety glasses or goggles.
- **Skin Protection:** Wear chemical-resistant gloves and protective clothing.
- **Respiratory Protection:** Use a mask or respirator in high vaporization conditions or if ventilation is insufficient.
- **Hygiene Measures:** Wash hands thoroughly after handling. Avoid eating, drinking, or smoking while working with the product.

7. Physical and Chemical Properties

- **Appearance:** Clear, colorless to pale yellow liquid
- **Odor:** Slightly fruity
- **Melting Point:** ~ -80°C
- **Boiling Point:** 327°C
- **Solubility in Water:** Insoluble

- **Density:** ~1.05 g/cm³ at 25°C
- **Vapor Pressure:** Low (\leq 0.01 mmHg at 25°C)
- **Viscosity:** 40-50 mPa·s at 25°C
- **Flash Point:** Approx. 204°C (closed cup)

8. Stability and Reactivity

Stability: Stable under normal conditions of use and storage.

Hazardous Reactions: None under recommended conditions.

Conditions to Avoid: Avoid heat, open flames, and incompatible materials.

Incompatible Materials: Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products: Thermal decomposition may produce carbon oxides (CO and CO₂).

9. Toxicological Information

Acute Toxicity:

- **Oral (LD50):** > 5000 mg/kg (rat)
- **Dermal (LD50):** > 2000 mg/kg (rabbit)

Chronic Toxicity: Not classified as hazardous for repeated exposure.

Routes of Exposure: Skin and eye contact, incidental ingestion, or inhalation of vapor/mist.

Symptoms of Overexposure: Prolonged exposure may result in mild skin or eye irritation, headache, or dizziness in poorly ventilated spaces.

10. Disposal Considerations

Waste Disposal:

- Dispose of material in accordance with local, national, and regional regulations.
- Do not discharge into sewers, storm drains, or waterways.

Empty Containers: Ensure proper cleaning before disposal or recycling. Containers must be handled in accordance with applicable waste management regulations.
