

Material Safety Data Sheet (MSDS)

Gamma-Octalactone

Revision Date: 24-September-2025

Version: 1.0

Section 1: Product Identification

- **Product Name:** Gamma-Octalactone
- **Chemical Formula:** C₈H₁₄O₂
- **CAS No:** 104-50-7
- **Synonyms:** γ-Octalactone; 5-Hexyl-dihydro-2(3H)-furanone; 4-Octanolide; Peach Lactone C-8
- **Recommended Use:** Flavoring and fragrance ingredient; chemical intermediate.

Section 2: Hazards Identification

- **Classification (GHS):** Not classified as hazardous under normal conditions of use.
- **Signal Word:** —
- **Hazard Statements:**
 - May cause mild eye or skin irritation.
- **Precautionary Statements:**
 - Avoid contact with skin and eyes.
 - Wash thoroughly after handling.
 - Use personal protective equipment when handling large quantities.

Section 3: Composition / Information on Ingredients

- **Concentration:** $\geq 95\%$

Section 4: First Aid Measures

- **Inhalation:** Move person to fresh air. If symptoms occur, seek medical advice.
- **Skin Contact:** Wash with plenty of water and soap. Remove contaminated clothing. If irritation persists, consult a doctor.
- **Eye Contact:** Rinse immediately with plenty of water for several minutes. Remove contact lenses if present. Seek medical advice if irritation persists.
- **Ingestion:** Rinse mouth. Do not induce vomiting. Get medical attention if unwell.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, carbon dioxide (CO_2).
- **Specific Hazards:** Combustion produces carbon oxides and acrid fumes.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and full protective clothing.

Section 6: Accidental Release Measures

- **Personal Precautions:** Avoid inhalation of vapors and contact with skin/eyes. Use personal protective equipment.
- **Environmental Precautions:** Prevent entry into drains or waterways.

- **Cleanup Methods:** Absorb with inert material (sand/earth). Collect into suitable containers for disposal. Wash spill area thoroughly.

Section 7: Handling and Storage

- **Handling:** Avoid inhalation of vapors and contact with skin or eyes. Use adequate ventilation.
- **Storage:** Keep tightly closed in a cool, dry, well-ventilated place away from sources of heat and sunlight.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** No occupational exposure limits established.
- **Engineering Controls:** Ensure adequate general ventilation.
- **Personal Protective Equipment:** Chemical-resistant gloves, protective goggles, protective clothing; respirator if ventilation inadequate.

Section 9: Physical and Chemical Properties

- **Appearance:** Colorless to pale yellow liquid
- **Odor:** Fruity, peach-like odor
- **Boiling Point:** 234 °C
- **Flash Point:** 113 °C (closed cup)
- **Solubility:** Practically insoluble in water; soluble in ethanol and organic solvents
- **Molecular Weight:** 142.20 g/mol

Section 10: Stability and Reactivity

- **Stability:** Stable under normal storage and handling conditions.
- **Incompatible Materials:** Strong oxidizing agents.
- **Hazardous Decomposition Products:** Carbon oxides when burned.

Section 11: Toxicological Information

- **Routes of Exposure:** Inhalation, skin and eye contact, ingestion.
- **Acute Effects:** May cause mild irritation to skin, eyes, or respiratory tract.
- **Chronic Effects:** Prolonged/repeated exposure may cause skin dryness or dermatitis in sensitive individuals.

Section 12: Ecological Information

- **Ecotoxicity:** Not classified as dangerous for the environment; avoid uncontrolled release.
- **Persistence and Degradability:** Expected to be biodegradable.
- **Bioaccumulative Potential:** Low to moderate potential.

Section 13: Disposal Considerations

- Dispose of product/container in accordance with local/regional/national regulations. Do not release into the environment.

Section 14: Transport Information

- **UN Number:** Not regulated
- **Proper Shipping Name:** Gamma-Octalactone
- **Hazard Class:** Not classified as dangerous goods
- **Packing Group:** Not applicable

Section 15: Regulatory Information

- Listed on major chemical inventories. Complies with Indian chemical safety regulations.
- Not classified as hazardous substance under GHS for normal uses.

Section 16: Other Information

Disclaimer: The above information is believed to be correct but does not claim to be exhaustive. Users are responsible for verifying suitability under actual conditions of use. Triveni Chemicals disclaims liability for damage resulting from handling or contact.