

Material Safety Data Sheet (MSDS)

Gamma-Decalactone

Revision Date: 24-September-2025

Version: 1.0

Section 1: Product Identification

- **Product Name:** Gamma-Decalactone
- **Chemical Formula:** C₁₀H₁₈O₂
- **CAS No:** 706-14-9
- **Synonyms:** γ-Decalactone; Peach Lactone; 5-Hexyl-dihydro-2(3H)-furanone; 4-Decanolide
- **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 skin or eye irritation.
- **Precautionary Statements:**
 - Avoid contact with eyes and prolonged skin contact.
 - Use personal protective equipment if handling bulk quantities.
 - Wash thoroughly after handling.

Section 3: Composition / Information on Ingredients

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

Section 4: First Aid Measures

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

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Water spray, foam, dry chemical, carbon dioxide (CO₂).
- **Specific Hazards:** Combustion may produce carbon oxides.
- **Protective Equipment:** Wear self-contained breathing apparatus and protective clothing.

Section 6: Accidental Release Measures

- **Personal Precautions:** Avoid contact with skin/eyes. Ensure adequate ventilation. Use protective equipment.
- **Environmental Precautions:** Prevent entry into drains and waterways.

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

Section 7: Handling and Storage

- **Handling:** Avoid inhalation of vapors and contact with eyes/skin. Use in well-ventilated areas.
- **Storage:** Store tightly closed in a cool, dry, well-ventilated place away from heat and direct sunlight.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** Not specifically established.
- **Engineering Controls:** Provide adequate ventilation.
- **Personal Protective Equipment:** Safety goggles, gloves, protective clothing; respirator if ventilation is inadequate.

Section 9: Physical and Chemical Properties

- **Appearance:** Colorless to pale yellow liquid
- **Odor:** Strong peach/apricot-like odor
- **Boiling Point:** 281 °C
- **Flash Point:** 136 °C (closed cup)
- **Solubility:** Practically insoluble in water; miscible with ethanol and many organic solvents
- **Molecular Weight:** 170.25 g/mol

Section 10: Stability and Reactivity

- **Stability:** Stable under normal conditions.
- **Incompatible Materials:** Strong oxidizing agents.
- **Hazardous Decomposition Products:** Carbon oxides under fire conditions.

Section 11: Toxicological Information

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

Section 12: Ecological Information

- **Ecotoxicity:** Not expected to be acutely hazardous to aquatic life.
- **Persistence and Degradability:** Expected to be biodegradable.
- **Bioaccumulative Potential:** Low to moderate.

Section 13: Disposal Considerations

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

Section 14: Transport Information

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

Section 15: Regulatory Information

- Complies with Indian chemical safety regulations and listed under international chemical inventories.
- Not classified as a hazardous substance under GHS for typical use; check local requirements.

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.