

Material Safety Data Sheet (MSDS)

Triton X-100

Revision Date: 16-October-2025

Version: 1.0

Section 1: Product Identification

- **Product Name:** Triton X-100
- **Chemical Formula:** $C_{14}H_{22}O(C_2H_4O)_n$ ($n \approx 9-10$)
- **CAS No:** 9002-93-1
- **Synonyms:** Octoxynol, T-Octylphenoxyethoxyethanol, and Polyethylene Glycol P-(1,1,3,3-tetramethylbutyl)-phenyl ether
- **Recommended Use:** Nonionic surfactant, emulsifier, detergent, laboratory reagent.

Section 2: Hazards Identification

- **Classification (GHS):** Eye Irrit. 2; Skin Irrit. 2; Aquatic Chronic 2.
- **Signal Word:** Warning
- **Hazard Statements:**

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GROUP OF Triveni CHEMICALS

- Harmful if swallowed
- Causes skin irritation and serious eye irritation
- Combustible liquid
- Keep away from heat/sparks/open flames. No smoking
- Wear protective gloves/eye protection
- **IF ON SKIN or IN EYES:** Rinse cautiously with water; seek medical advice if irritation persists

Section 3: Composition / Information on Ingredients

- **Concentration:** 98%

Section 4: First Aid Measures

- **Inhalation:** Remove to fresh air. If symptoms develop, seek medical attention.
- **Skin Contact:** Wash with plenty of soap and water. Remove contaminated clothing. Seek medical advice if irritation persists.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing. Seek medical attention if irritation persists.
- **Ingestion:** Rinse mouth. Do NOT induce vomiting. Seek medical advice immediately.

Section 5: Fire-Fighting Measures

- **Suitable Extinguishing Media:** Dry chemical, foam, carbon dioxide; water spray.
- **Specific Hazards:** Vapors may form explosive mixtures with air. Thermal decomposition may produce irritating or toxic fumes.
- **Protective Equipment:** Firefighters should wear self-contained breathing apparatus and protective clothing.

Section 6: Accidental Release Measures

- **Personal Precautions:** Use personal protective equipment. Avoid breathing vapors. Ensure adequate ventilation. Eliminate ignition sources.
- **Environmental Precautions:** Prevent entry into drains and waterways.
- **Cleanup Methods:** Absorb with inert material. Collect in suitable container for disposal.

Section 7: Handling and Storage

- **Handling:** Use only outdoors or in a well-ventilated area. Avoid breathing vapour. Wear appropriate PPE.
- **Storage:** Keep container tightly closed in a cool, well-ventilated place. Store locked up. Keep away from heat and open flames.

Section 8: Exposure Controls / Personal Protection

- **Exposure Limits:** Not established for this substance.
- **Engineering Controls:** Provide adequate ventilation and local exhaust if needed.
- **Personal Protective Equipment:** Chemical-resistant gloves, safety goggles, protective clothing. Respirator if ventilation is inadequate.

Section 9: Physical and Chemical Properties

- **Appearance:** Clear, viscous liquid. Colorless to light yellow.
- **Odor:** Mild, faint, or weak.
- **Boiling Point:** 200 °C
- **Flash Point:** 251 °C
- **Molecular Weight:** 625 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, ingestion, skin and eye contact.
- **Acute Effects:** Toxic if swallowed; harmful if inhaled; causes skin and serious eye irritation; may cause allergic skin reaction.
- **Chronic Effects:** Prolonged or repeated exposure may cause dermatitis.

Section 12: Ecological Information

- **Ecotoxicity:** Toxic to aquatic life.
- **Persistence and Degradability:** Not determined.
- **Bioaccumulative Potential:** Not determined.

Section 13: Disposal Considerations

- Dispose of contents/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:** Triton X-100

- **Hazard Class:** Not Applicable
- **Packing Group:** Not Applicable

Section 15: Regulatory Information

- Complies with Indian chemical safety regulations and listed under international chemical inventories.
- Classified as hazardous substance as per GHS.

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 any liability for damage resulting from handling or contact.