Safety data sheet

ChemiPURE Triton X-100

Product name ChemiPURE Triton X-100	Catalog no. TX1100, TX1500
Synonyms Octylphenol ethoxylate; Triton X100	SDS revision -
CAS no. 9002-93-1	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE Triton X-100
Product code	TX1100, TX1500
CAS number	9002-93-1
EC number	-
Recommended use	Non-ionic surfactant for laboratory research: cell lysis, membrane solubilization, protein extraction, immunoassays and biological sample processing. Research use only.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. Ipekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Acute Tox. 4 (oral), H302; Eye Dam. 1, H318; Aquatic Chronic 2, H411 (CLP, Regulation (EC) No. 1272/2008).
Label elements	GHS05, GHS07, GHS09; signal word: Danger.
Symbols / pictograms	
Signal word	Danger
Hazard statements	H302 Harmful if swallowed. H318 Causes serious eye damage. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements - Prevention	P264 Wash after handling. P270 Do not eat, drink or smoke. P273 Avoid release to the environment. P280 Wear protective gloves and eye/face protection.
Precautionary statements - Response	P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if unwell. P330 Rinse mouth. P305+P351+P338 IF IN EYES: Rinse cautiously with water; remove contact lenses if easy. P310 Immediately call a POISON CENTER/doctor. P391 Collect spillage.
Other hazards	Octylphenol ethoxylates are associated with endocrine-disrupting properties and EU REACH Annex XIV. Avoid release to water.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE Triton X-100
Synonyms	Polyethylene glycol tert-octylphenyl ether; octylphenol ethoxylate; Triton X-100
Concentration	≥98% (purity)
Formula	C34H62O12 (nominal average; ethoxylate distribution may vary)
Molecular weight	Approx. 647 g/mol (nominal average)
Mixture statement	Non-ionic octylphenol ethoxylate surfactant, CAS 9002-93-1; ≥98% product purity. Minor impurities and ethoxylation distribution not individually specified.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Immediately rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing; obtain urgent medical attention (serious eye damage risk).
Skin contact	Remove contaminated clothing. Wash affected skin with plenty of water and soap. Seek medical advice if irritation or symptoms develop.
Inhalation	Move affected person to fresh air and keep comfortable for breathing. Obtain medical advice if respiratory symptoms develop.
Ingestion	Rinse mouth; do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor if unwell.
Self-protection of first aider	Use suitable gloves and splash-resistant eye/face protection; do not expose yourself to contaminated material or aerosols.
Most important symptoms / effects	Harmful if swallowed; serious eye injury possible. Skin contact may cause irritation. Delayed effects are not well characterized.
Notes to physicians	Treat symptomatically. After eye exposure, arrange immediate medical/ophthalmologic assessment.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Dry chemical powder, alcohol-resistant foam, carbon dioxide or water spray appropriate to the surrounding fire.
Unsuitable extinguishing media	Avoid direct high-pressure water jets that may spread liquid or contaminated runoff.
Special hazards arising from the substance or mixture	Not classified as a flammable liquid. Heating or combustion can generate irritating/toxic fumes, carbon oxides and other decomposition products. Contaminated firefighting water is harmful to aquatic environments.
Explosion data	No direct explosion hazard expected under normal use; flash point approximately 251 °C for comparable neat Triton X-100.
Advice for firefighters	Use self-contained breathing apparatus and full protective clothing. Contain contaminated firewater; keep it out of drains and waterways.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unprotected personnel away. Avoid contact with eyes and skin. Ensure ventilation and wear chemical-resistant gloves and splash goggles/face protection.
Environmental precautions	Prevent entry into drains, soil, surface water and sewers. Toxic to aquatic life with long lasting effects; notify authorities where applicable.
Methods and materials for containment and cleaning up	Stop leak if safe. Dike and absorb with inert material (sand, diatomaceous earth or vermiculite). Transfer to closed, correctly labelled containers for hazardous-waste disposal.
Reference to other sections	For PPE and disposal see Sections 8 and 13.

07 HANDLING AND STORAGE

Precautions for safe handling	Use with adequate ventilation. Avoid splashes and generation of aerosols; do not ingest. Wear eye protection and suitable gloves. Avoid environmental release and observe laboratory hygiene.
Conditions for safe storage	Store tightly closed in the original compatible container at 15–25 °C, protected from direct light, heat and contamination. Keep in a dry, well-ventilated area.
Container labeling	Maintain legible identification and hazard labelling; close container promptly after each use and protect from accidental release.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No product-specific occupational exposure limit has been established. Use ventilation and good laboratory practices to minimize aerosol and eye exposure.

8.2 Exposure controls

Engineering measures	Provide adequate laboratory ventilation and local exhaust where splashes, mists or aerosols may form. Maintain an eyewash station.
Hygiene measures	Do not eat, drink or smoke. Wash hands after handling. Clean contaminated clothing before reuse.
Eye / face protection	Chemical-splash goggles conforming to EN 166; use a face shield for large-volume transfer or splashing operations.
Hand protection	Chemical-resistant gloves (e.g. nitrile, EN ISO 374), selected according to exposure duration and manufacturer breakthrough information.
Skin and body protection	Laboratory coat and suitable long-sleeved protective clothing; closed footwear.
Respiratory protection	Normally not required with adequate ventilation; use appropriately selected respiratory protection when aerosol exposure cannot be controlled.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colorless to light yellow viscous liquid
Odor	Odorless to faint characteristic odor
Odor threshold	No data available
pH	Approximately 5–8 (reported for comparable material; test conditions vary)
Melting point / freezing point	Approximately 6 °C (comparable substance)
Initial boiling point and boiling range	Approximately 270 °C (comparable substance)
Flash point	Approximately 251 °C (comparable substance)
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable (liquid); not classified as flammable
Upper / lower flammability or explosive limits	No data available
Vapor pressure	Very low; <0.001 hPa at 20 °C (comparable substance)
Vapor density	No data available
Relative density	Approximately 1.07 g/cm³ (20 °C)
Solubility(ies)	Miscible with water
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscous liquid; no validated numerical value available
Explosive properties	Not classified as explosive
Oxidizing properties	Not classified as oxidizing

10 STABILITY AND REACTIVITY

Reactivity	No hazardous reaction expected under ordinary handling and storage; avoid overheating.
Chemical stability	Stable under recommended conditions (tightly closed at 15–25 °C, protected from light).
Possibility of hazardous reactions	No hazardous polymerization expected. Thermal decomposition can produce irritating or toxic fumes.
Conditions to avoid	Direct sunlight, high temperatures, uncontrolled heating, and contamination.
Incompatible materials	Strong oxidizing agents; other specific incompatibilities have not been fully characterized.
Hazardous decomposition products	Carbon oxides and irritating/toxic decomposition fumes upon thermal degradation or fire.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Acute oral toxicity Category 4 (H302): harmful if swallowed. No acute dermal/inhalation classification assigned.
Skin corrosion / irritation	Not classified as corrosive to skin under the referenced CLP classification; prolonged contact may cause irritation.
Serious eye damage / eye irritation	Eye Dam. 1 (H318): causes serious eye damage.
Carcinogenicity	Not classified for carcinogenicity on available data.
Reproductive toxicity	Not classified for reproductive toxicity; separate regulatory concern exists regarding endocrine-disrupting properties of this substance group.
STOT - SE	Not classified on available data.
STOT - RE	Not classified on available data.
Aspiration hazard	Not classified on available data.

11.2 Potential health effects

Ingestion: Harmful if swallowed; possible gastrointestinal upset.
Inhalation: Aerosols may irritate the respiratory tract.
Skin: Prolonged contact may cause irritation.
Eyes: Serious eye damage; emergency rinsing and medical assessment required.

11.3 Additional information

Immediate ophthalmologic/medical care is required after eye exposure. Other exposed persons should be assessed according to symptoms and exposure severity.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic Chronic 2 (H411): toxic to aquatic life with long lasting effects. Prevent release into wastewater and the natural environment.
Persistence and degradability	Biodegradation varies with ethoxylate composition and test conditions; substance-specific verification is required.
Bioaccumulative potential	No reliable product-specific bioaccumulation value available.
Mobility in soil	Water-miscible surfactant; may disperse into water and migrate with aqueous runoff. Prevent discharge.
Results of PBT and vPvB assessment	Not assessed as PBT/vPvB under REACH Annex XIII in comparable SDS data; endocrine-disrupting properties are identified for this substance group.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Collect and dispose as laboratory hazardous chemical waste through an authorized service. Do not pour into drains or natural waters. Observe national and local disposal requirements.
Contaminated packaging	Keep residual product out of the environment. Treat unclean containers as contaminated waste; do not reuse; dispose via a licensed collector.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton X-100)	9	III	Yes
IMDG	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton X-100)	9	III	Yes
IATA	3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton X-100)	9	III	Yes

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	REACH Regulation (EC) No. 1907/2006 and CLP Regulation (EC) No. 1272/2008. Octylphenol ethoxylates (4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated) are listed under REACH Candidate List / Annex XIV; verify applicable authorization and use exemptions in the destination jurisdiction.
Environmental hazards	Aquatic Chronic 2 (H411); marine pollutant under IMDG. UN 3082, Class 9, PG III. Transport relief provisions may apply to eligible inner packagings ≤5 L, subject to mode-specific conditions.
Chemical safety assessment	No EcoTech product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail