



SAFETY DATA SHEET

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Triton X-100
PRODUCT NUMBER: T8100
COMPANY INFO: *PhytoTechnology Laboratories*[®]
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EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only
1-352-323-3500 - International

RECOMMENDED USE: For Research Use Only

RESTRICTIONS ON USE: Products sold by *PhytoTechnology Laboratories*[®] are intended for research and laboratory use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals.

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification:

- H302 - Acute toxicity, Oral (Category 4)
- H319 - Eye irritation (Category 2A)
- H401 - Acute aquatic toxicity (Category 2)
- H411 - Chronic aquatic toxicity (Category 2), H411

GHS Label elements, including hazard and precautionary statements:



Signal Word: **Warning**

Hazard Statements:

- H302 – Harmful if swallowed.
- H319 – Causes serious eye irritation.
- H411 – Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- P273 – Avoid release to the environment.
- P301 + P312 + P330 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
- P280 – Wear protective gloves/protective clothing/eye protection.
- P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: X-100; 4-(1,1,3,3-Tetramethylbutyl)phenyl-polyethylene glycol; t-Octylphenoxy polyethoxyethanol; Polyethylene glycol tert-octylphenyl ether
CAS No.: 9002-93-1
Formula: $(C_2H_4O)_n C_{14}H_{22}O$, n=9-10

Ingredient	CAS Number	Percent	Hazardous
Triton X-100	9002-93-1	~100%	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.

Special Protective Equipment and Precaution for Firefighters: In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.

Hazardous Combustion Products: May emit toxic fumes under fire conditions.

Toxic Gases Produced: Carbon dioxide and carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Method of Containment and Cleanup: Clean-up personnel should wear proper protective equipment and clothing. Contain spilled material and do not let product enter drains. Soak up with inert absorbent material and place in a suitable, closed container for disposal in accordance with all local, state/provincial, and national requirements. Ventilate the area if necessary.

7. HANDLING AND STORAGE

Precaution for Safe Handling: Avoid contact with skin and eyes. Avoid aerosols. Avoid incompatible substances. Wash thoroughly after use.

Conditions for Safe Storage: Keep in a tightly closed container and store in a cool, dry, and well-ventilated area.

Incompatibilities: Strong oxidizing agent

Recommended Storage Temperature: Room Temperature

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs): No data available

Threshold Limit Values (TLVs): No data available

Engineering Controls: Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection: Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.

Skin Protection: Protective gloves

Body Protection: Lab coat

Respiratory Protection: Respiratory protection is not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light Yellow, Clear Liquid

pH: 9.7

Solubility: Soluble in Water

Melting Point: 6 °C (43 °F)

Vapor Density: 1.06 g/mL at 25 °C (77 °F)

Vapor Pressure: < 1.3 hPa (<1.00 mmHg) at 20 °C (68 °F)

Odor: No data available

Odor Threshold: No data available

Viscosity: No data available

Relative Density: 1.06 g/mL at 25 °C (77 °F)

Evaporation Rate: No data available

Initial Boiling Point and Boiling Range: No data available

Flammability (solid, gas): No data available

Partition coefficient: No data available
n-octanol/water):

Auto-ignition Temperature: No data available

Decomposition Temperature: No data available

Flash Point (Closed Cup): 251 °C (484 °F)

Flammable Limits: Upper (%) – No data available Lower (%) – No data available

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical Stability: Stable under normal conditions of use

Possibility of Hazard Reactions: Will not occur

Conditions to Avoid: Moisture

Incompatibles Materials: Strong oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

11. TOXICOLOGICAL INFORMATION

Toxicity: LD₅₀ (Oral-Rat)(mg/Kg): 1800

LD₅₀ (Oral-Mouse)(mg/Kg): No data available

LD₅₀ (Dermal-Rabbit)(mg/Kg): 8000

Carcinogenicity: NTP: No
 IARC: No
 Z List: No
 OSHA Reg: No

Reproductive Toxicity: No data available

Symptoms Associated with Overexposure: Irritation, sneezing, gastrointestinal upset

Specific Target Organ Toxicity: Single Exposure: No data available
 Repeated Exposure: No data available

Target Organs: None identified

Medical Conditions Aggravated By Exposure: None identified

Routes of Entry: Inhalation, Ingestion

NIOSH/RTECS NO: MD0907700

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity: Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 8.9 mg/l - 96.0 h
 Toxicity to daphnia - EC50 - Daphnia (water flea) - 26 mg/l - 48 h

Persistence and Degradability: Biodegradability: Not readily biodegradable
 Chemical Oxygen Demand (COD): 2.19 mg/g

Bioaccumulative Potential: No data available

Mobility in Soil: No data available

Other Adverse Effects: Toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATION

Disposal Procedure: Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: No data available

14. TRANSPORT INFORMATION

Domestic (D.O.T.): Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (p-tertiary-Octylphenoxy polyethyl alcohol)
 Hazard Class: 9 Packing group: III
 UN: 3082
 Marine pollutant: Yes

International:

IMDG: Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (p-tertiary-Octylphenoxy polyethyl alcohol)
 Hazard Class: 9 Packing group: III EMS-No.: F-A, S-F
 UN: 3082
 Marine pollutant: Yes

IATA: Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (p-tertiary-Octylphenoxy polyethyl alcohol)
 Hazard Class: 9 Packing group: III
 UN: 3082

15. REGULATORY INFORMATION

TSCA:	Yes
SARA TITLE III:	
Section 302 (EHS) Ingredients:	No
Section 313 Ingredients:	No
Section 304 (EHS/CERCLA) Ingredients:	No
Section 311/312 Hazard:	No SARA Hazards
Massachusetts Right to Know Components:	No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components:	CAS No.: 9002-93-1 p-tertiary-Octylphenoxy polyethyl alcohol
New Jersey Right to Know Components:	CAS No.: 9002-93-1 p-tertiary-Octylphenoxy polyethyl alcohol
California Prop. 65 Components:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	2		1	0
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	2	1	0	

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Revision Date: 14 May 15