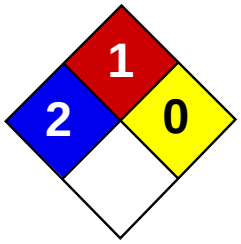

Health	2
Fire	1
Reactivity	0
Personal Protection	J

Material Safety Data Sheet
TRITON X-100 MSDS

Section 1: Chemical Product and Company Identification

Product Name: TRITON X-100

Catalog Codes: SLT2452

CAS#: 9002-93-1

RTECS: MD0907700

TSCA: TSCA 8(b) inventory: TRITON X-100

CI#: Not available.

Synonym: Polyethylene glycol octylphenyl ether; Octylphenoxypolyethoxyethanol; Polyethylene glycol mono [4-(1,1,3,3-tetramethylbutyl) phenyl] ether

Chemical Name: Triton X-100

Chemical Formula: (C2-H4-O)nC14-H22-O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
TRITON X-100	9002-93-1	100
May contain trace amounts of Ethylene Oxide		

Toxicological Data on Ingredients: TRITON X-100: ORAL (LD50): Acute: 1800 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female [POSSIBLE]. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact: Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: CLOSED CUP: 274°C (525.2°F).

Flammable Limits: Not available.

Products of Combustion: These products are carbon oxides (CO, CO2) and water.

Fire Hazards in Presence of Various Substances:
Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill:
Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Section 7: Handling and Storage

Precautions:
Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. It may be light and air sensitive

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not available.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Odorless.

Taste: Not available.

Molecular Weight: 646.85 g/mole

Color: Clear Colorless to light yellow.

pH (1% soln/water): Not available.

Boiling Point: 270°C (518°F)

Melting Point: 6°C (42.8°F)

Critical Temperature: Not available.

Specific Gravity: 1.06 (Water = 1)

Vapor Pressure: <0.1 kPa (@ 20°C)

Vapor Density: Not available.

Volatility: <0.5% (v/v).

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Non-ionic.

Dispersion Properties: See solubility in water.

Solubility:
Soluble in cold water, hot water. Insoluble in mineral spirits and kerosene

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, light, air, moisture, incompatible materials.

Incompatibility with various substances: Reactive with oxidizing agents, reducing agents.

Corrosivity: Not considered to be corrosive for metals and glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact.

Toxicity to Animals: Acute oral toxicity (LD50): 1800 mg/kg [Rat].

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP, None. by OSHA, None. by NIOSH. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/ female [POSSIBLE].

Other Toxic Effects on Humans:
Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (maternal effects) based on animal data (high oral doses of 65,500 mg/kg given to female rat prior to mating). May affect genetic material (mutagen). The product may contain trace amounts of Ethylene Oxide which can cause cancer and birth defects or other adverse reproductive effects.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: Causes severe eye irritation. Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. May be harmful if swallowed. Inhalation: May cause respiratory tract irritation. The toxicological effects of this substance have not been fully investigated.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations:
California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Ethylene Oxide California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found. California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Ethylene Oxide TSCA 8(b) inventory: TRITON X-100 TSCA 8(a) IUR: TRITON X-100 TSCA 8(d) H and S data reporting: TRITON X-100: Effective: 3/29/96; Sunset: 3/39/06

Other Regulations: Not available.

Other Classifications:

WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):
R22- Harmful if swallowed. R41- Risk of serious damage to eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39- Wear eye/face protection.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment:
Not applicable. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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