



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

Section 1 - Chemical Product and Company Identification

MSDS Name:

Triton X-100*

Catalog Numbers:

LC26280

Synonyms:

Octylphenoxy polyethoxyethanol, alkylphenol-hydroxypolyoxyethylene

Company Identification:

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
9036-19-5	Polyethylene glycol octylphenyl ether	>97
25322-68-3	Poly(ethylene oxide)	<3

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless to light yellow solution

Danger! Causes severe eye irritation or burns. May cause skin irritation. May be harmful if swallowed or absorbed through the skin. Aspiration hazard. Can enter lungs and cause damage.

Target Organs: None known.

Potential Health Effects

Eye:

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Mist may cause eye irritation.

Skin:

Brief contact is essentially nonirritating to skin. Prolonged or repeated contact may cause moderate skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Similar materials have been shown to cause lung effects following contact with the skin.



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

Ingestion:

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

Inhalation:

At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous. Mist may cause irritation of upper respiratory tract.

Chronic:

May cause dermatitis and conjunctivitis.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 30 minutes, occasionally lifting the upper and lower eyelids. Get medical aid at once. Do NOT allow victim to rub or keep eyes closed.

Skin:

Get medical aid at once. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:

Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. No specific antidote exists. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. If possible, move containers from fire area. Fight fire from protected location or safe distance.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water fog, or alcohol-resistant foam. Do not use direct streams of water, as this can spread the fire.

Autoignition Temperature:

Not available.

Flash Point:

Not available.



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

NFPA Rating:

Health- 3, Flammability- 1, Instability- 0.

Explosion Limits:

Lower: n/a Upper: n/a

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill using an absorbent, non-combustible material such as earth, sand, diatomaceous earth, vermiculite, or other suitable absorbent. Collect in suitable, properly labeled containers for disposal. Keep from entering ditches, sewers, waterways, and groundwater.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Do not ingest or inhale. Use with adequate ventilation.

Storage:

Store in a cool, dry area. Store capped at room temperature.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Polyethylene glycol octylphenyl ether	none listed	none listed	none listed
Poly(ethylene oxide)	none listed	none listed	10 mg/m ³

OSHA Vacated PELs:

None.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless to light yellow
Odor:	Mild odor
pH:	6 (5% aq. soln.)
Vapor Pressure:	<0.01 mm Hg @ 20°C
Vapor Density:	>1 (air=1)
Evaporation Rate:	<0.01 (butyl acetate =1)
Viscosity:	226 cSt
Boiling Point:	>200°C (>392°F)
Freezing/Melting Point:	2°C (26°F)
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.061
Molecular Formula:	C ₃₃ H ₆₀ O ₁₀
Molecular Weight:	624.00

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Do not distill to dryness. Product can oxidize at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatibilities with Other Materials:

Strong acids, oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, aldehydes, ketones, organic acids.

Hazardous Polymerization:

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 9036-19-5: MD0907600; RI0175000; RI0525000; RI0710000; RI0720000.

LD50/LC50:

CAS# 9036-19-5:

Oral, rat: LD50 = 1900 - 5000 mg/kg

Dermal, rabbit: LD50 = >3000 mg/kg

Carcinogenicity:

CAS# 9036-19-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

Epidemiology:

Triton X-100 may contain trace amounts of ethylene oxide, which is classified as a carcinogen by OSHA, a group 1 carcinogen by IARC, a group 2 carcinogen by NTP. If this product is handled with adequate ventilation, the presence of these trace amounts is not expected to result in any short or long-term hazard.

Teratogenicity:

Has been toxic to the fetus in lab animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Section 12 - Ecological Information

OECD Biodegradation Test Method 301B: >60% Biodegradation, 28 day exposure time
Chemical Oxygen Demand: 1.71 –2.18 mg/mg; Toxicity: LC50, fathead minnow (Pimephales promelas), 96 hr: 4-8.9 mg/L; EC50, water flea Daphnia magna, 48 hr: 18-26 mg/L

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 9036-19-5 is listed on the TSCA Inventory.

CAS# 25322-68-3 is listed on the TSCA inventory.

SARA Reportable Quantities (RQ):

None of the components are on this list.

CERCLA/SARA Section 313:

None of the components are on this list.



Material Safety Data Sheet Triton X-100*

*[Triton is a registered trademark of Dow Chemical Corporation]

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State

State Right to Know:

None of the components are listed.

California Regulations:

WARNING: This product contains trace amounts of the following chemicals known to cause cancer, birth defects, or other reproductive harm: 1,4-Dioxane, Ethylene Oxide, Acetaldehyde, Formaldehyde.

European/International Regulations

Canadian DSL/NDSL:

CAS# 9036-19-5 is listed on Canada's DSL List.

CAS# 25322-68-3 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 9036-19-5 is listed on Canada's Ingredient Disclosure List.

CAS# 25322-68-3 is not listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: November 2, 1997

Revision Date: October 21, 2009

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.