Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Triton X-100
Product Number: 34729
Brand: Aldrich Chemical
Company: Sigma-Aldrich
Street Address: 3000 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103 US
Technical Phone: 314 771 5765
Fax: 800 333 5052
Emergency Phone: 414 273 3850 Ext. 5998

Section 2 - Composition/Information on Ingredient

Substance Name: P-TERTIARY-OCYLPHENOXY POLYETHYL ALCOHOL
CAS #: 9002-95-1
SARA 313: No
EC No: No
Annex I Index Number: No

Formula: (C2H4O)nC14H20
Synonyms: Antarox A-500, Ethoxylated p-tert-octylphenol, Hydroxy B-8W, Octylphenoxypolyethoxyethanol, Polyethylene glycol mono(p-1,1,3,3-tetramethylybutylphenyl) ether, Polyethylene glycol p-1,1,3,3-tetramethylybutylphenyl ether, Polyethylene glycol 1,2,2-trimethylhexylphenyl ether, Polyethylene glycol (p-tert-octylphenyl) ether, Poly(oxy-1,2-ethanediyl), alpha-(1,1,3,3-tetramethylybutylphenyl)-omega-hydroxy-(SC3), Procaplan, Texofor PF 300, Triton X, Triton X 100, Triton X 101, Triton X 188, Triton X 405, Triton X 706, TX 100/Triton XGEPAL, Polyoxyethylene(30)polyglycol ether, branched

Section 3 - Hazards Identification

Emergency Overview: Harmful. Harmful if swallowed. Risk of serious damage to eyes.

HMIS Rating:
Health: 2
Flammability: 1
Reactivity: 0

NFPA Rating:
Health: 2
Flammability: 1
Reactivity: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

Oral Exposure: If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

Flash Point: 485 °F
Autoignition Temp: 251 °C

Extinguishing Media:
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam. Foam and water spray are effective but may cause frothing.

Firefighting Protective Equipment:
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed In Case of Leak or Spill:
Evacuate area.

Procedure(s) of Personal Protection:
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

Methods for Cleaning Up:
Absorb on sand or vermiculite and place in closed containers for disposal. Vardilate area and wash spill site after material pickup is complete.

Environmental Protection:
Avoid contaminating water supply. Do not allow material to enter drains or water courses.

Section 7 - Handling and Storage

Handling:
User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

Storage:
Suitable: Keep tightly closed.

Section 8 - Exposure Controls / PPE

Engineering Controls:
Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment:
Respiratory: Government approved respirator.
Hand: Compatible chemical-resistant gloves.

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Section 11 - Toxicological Information

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Route of Exposure
Skin Contact
May cause skin irritation.

Skin Absorption
May be harmful if absorbed through the skin.

Eye Contact
Causes severe eye irritation.

Inhalation
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion
Harmful if swallowed.

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

RTECS Number: MD0007700

Toxicity Data
Oral - rat, female: 707 mg/kg (LD₅₀)
Oral - rat, male: 500 mg/kg (LD₅₀)
Skin - Rabbit: 13,300 mg/kg (LD₅₀)
Skin - Rabbit: 6,000 mg/kg (LD₅₀)
Oral - Rat: 1,800 mg/kg (LD₅₀)
Intravenous - Mouse: 1,200 mg/kg (LD₅₀)

Irritation Data
Eyes - Rabbit: 0.01 ml
Remarks: Severe irritation affects
Eyes - Rabbit: 0.01 ml
Skin - Rabbit: 0.5 ml 24H
Remarks: Mild irritation effect
Eyes - Rabbit: 0.01 ml 24H
Remarks: Moderate irritation effect

Chronic Exposure - Mutagen
Species
Human
Human
Mouse
Cell Type
HeLa cell
HeLa cell
HeLa cell
Mutation test
DNA inhibition
Other mutation test systems
Unscheduled DNA synthesis

Chronic Exposure - Reproductive Hazard
Species
Rat
Rat
Rat
Route of Administration
Oral
Skin
Parenteral
Result: Maternal Effects: Ovarian, fallopian tubes.
Result: Maternal Effects: Other effects. Specific Developmental Anomalies: Musculoskeletal system.
Result: Maternal Effects: Ovaries, fallopian tubes.
Exposure Time
(28W PREG)
(6-15D PREG)
(1D PREG)

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Section 12 - Ecological Information

Acute Ecotoxicity Tests
Test Type: EC50
Species: Daphnia
Time: 48 h
Value: 5.000 mg/l

Test Type: LC50
Species: Daphnia
Time: 96 h
Value: 8.0 mg/l

Elimination

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact a licensed professional waste disposal service to dispose of this material. Do not mix with combustible solvents or burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
UN No.: 3082
Class: 9
Packing Group: Packing Group III
Hazard Label: Class 9
PIT: Not PIT

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport

Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: Xn
Indication of Danger: Harmful
Risk Statement: R: 22 41
Harmful if swallowed. Risk of serious damage to eyes.

Section 16 - Other Information

Disclaimer
For R&D use only. Not for drug, household or other use.

Warranty
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2000 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.