SAFETY DATA SHEET

TEDIA®
High Purity Solvents

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All non-emergency numbers should be directed to Customer Service at 800-PURITY1

TRITON X-100 SDS No. M0208

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Triton X-100
Synonyms: Octylphenoxypolyethoxyethanol Nonionic Surfactant; An Alkylphenol-hydroxypolyoxyethlene; Alkylaryl Polyether Alcohol; Octyl Phenol Ethoxylate; Polyethylene glycol mono[4-(1,1,3,3-tetramethylbutyl)phenyl]ether
Recommended Use: This product is recommended for laboratory and manufacturing use only. It is not recommended for drug, food or household use.

2. HAZARDS IDENTIFICATION

Classification
Acute Oral Toxicity: GHS Category 4
Eye Irritation: GHS Category 2A
Acute Aquatic Toxicity: GHS Category 2
Chronic Aquatic Toxicity: GHS Category 2

Label Elements
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.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Emergency Overview
Causes severe eye irritation. Eye contact may result in permanent damage. Harmful if swallowed. May cause sensitization by skin contact. Harmful to aquatic organisms; may cause long-term adverse effects in the aquatic environment. Target Organs: Skin and eyes.

HMIS Rating:
Health – 2 Flammability – 1 Physical Hazard – 0 PPE – User supplied
NOTE: HMIS ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. These ratings are based on the inherent properties of this chemical under expected conditions of normal use and are not intended to be used in emergency situations. PPE is determined by the user based on their needs and conditions.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
Triton X-100	9002-93-1	> 99%	Yes

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical aid.
Ingestion: Do not induce vomiting unless directed by medical personnel. If vomiting occurs naturally, have victim lean forward. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Skin Contact: Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.
Notes to Physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flammability: Not expected to be a fire hazard.
Auto-ignition Temperature: Not available.
Flash Point: 274° C (575° F)
Flammable Limits: Not available.
Products of Combustion: May decompose into irritating and highly toxic gases under fire conditions (Carbon monoxide, carbon dioxide).
Specific Fire Hazards: As in any fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear.
Fire Fighting Media: Water or foam may cause frothing. Use dry chemical or carbon dioxide.
National Fire Protective Association: Health - 2, Flammability - 1, Reactivity - 0
NOTE: NFPA ratings use a numbering scale that ranges from 0 - 4 to indicate the degree of hazard. A value of zero means the chemical presents no hazard while a value of four indicates a high hazard. They are for use by emergency personnel to address the hazards that are presented by short term, acute exposure to this product under fire, spill, or similar emergencies. Ratings involve data and interpretations that may vary from company to company.

6. ACCIDENTAL RELEASE MEASURES

Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth. Always use proper personal protective equipment as described in section 8. Do not allow spill to enter drains.

7. HANDLING AND STORAGE

Precautions: Always use proper personal protective equipment as described in section 8. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid breathing vapor or mist.
Storage: Keep in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Facilities storing or using the material should be equipped with eyewash station and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Personal Protection: Wear protective chemical goggles or other appropriate eye protection. Use suitable gloves and protective clothing to prevent skin exposure. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever possible. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
Exposure Limits: None established

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State and Appearance: Clear, to slightly hazy liquid.
Odor: Mild odor
Molecular Formula: 4-$(C_8H_{17})C_6H_4(OCH_2CH_2)_nOH$
Molecular Weight: NA
Auto-ignition Temperature: Not available.
Flash Point: 274° C (575° F)
Flammable Limits: Not available.
pH: 6-8 (5% aqueous solution).
Boiling Point: 270° C @ 760 mm Hg
Freezing/Melting Point: 6° C
Decomposition Temperature: >189° C.
Specific Gravity: 1.067 g/cm^3
Vapor Density (Air=1): 7.11
Vapor Pressure: <1 mm Hg @ 20° C.
Evaporation Rate (Butyl acetate = 1): Negligible.
Viscosity: 240 cp @ 27° C.
Solubility: Soluble

10. STABILITY AND REACTIVITY

Stability: Air sensitive. Moisture sensitive. Light sensitive.
Conditions to Avoid: High temperatures, incompatible materials, light, exposure to air, exposure to moist air or water.
Incompatibility With Various Substances: Strong oxidizing agents, strong acids, and strong bases.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, skin absorption, skin contact
Acute Exposure Hazards*:*

INHALATION HAZARD: May cause respiratory tract irritation. May be harmful if inhaled.
INGESTION HAZARD: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May be harmful if swallowed.
SKIN CONTACT HAZARD: May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May be harmful if absorbed through the skin.
EYE CONTACT HAZARD: Causes severe eye irritation. Causes redness and pain. Risk of serious damage to eyes.

Chronic Exposure Hazards: Repeated exposure may cause sensitization dermatitis.
Animal Toxicity:
Oral, rat: LD50 = 1800 mg/kg;
Skin, rabbit: LD50 = 8000 mg/kg;
Carcinogenicity: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: No information available.
Neurotoxicity: No information available.
Other Studies: No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Fish: Fathead minnow: LC50 = 8.9 mg/l, 96 hr.
Invertebrates: Water Flea: EC50 = 26 mg/l, 48 hr.
Environmental Fate: Not readily biodegradable (36%). Chemical oxygen demand (COD) – 2.19 mg/g

13. DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

Not regulated for transportation.

15. REGULATORY INFORMATION

US Federal Regulations:
CERCLA Hazardous Substances: CAS# 9002-93-1 does not have an RQ
SARA Section 302: Does not have a TPQ
SARA Codes: CAS# 9002-93-1 – immediate
Section 313: Triton X-100 (9002-93-1) is not subject to SARA Title III Section 313 reporting requirements.
OSHA: Not considered highly hazardous by OSHA.
US State Regulations:
CAS# 9002-93-1 is on any state right-to-know lists for New Jersey and Pennsylvania.
California Prop 65: This product contains no chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Originally Prepared: 1/1/2006
Last Revised: 12/1/2014 – Updated hazard categories, hazard statements, and precautionary statements in Section2, toxicology information in Section 11, and environmental toxicology information in Section 12.

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