

Shanghai Aladdin Biochemical Technology Co., Ltd.
No. 809, Chuhua Branch Road, Fengxian District, Shanghai

SAFETY DATA SHEET

Version: v1
Revision Date: 2024-01-21
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Triton™ X-100
Product Number : T109027
Brand : aladdin
CAS-No. : 9002-93-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the safety data sheet

Company : Shanghai Aladdin Biochemical Tech Co., Ltd
Address : 36 Xinjinqiao Road, Shanghai
Telephone : 400-620-6333
Fax : no data available

1.4 Emergency telephone number

Emergency Phone : 0532-83889090

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal word	Danger
Hazard statement(s)	
H302	Harmful if swallowed
H316	Causes mild skin irritation
H318	Causes serious eye damage
H411	Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P264	Wash hands [and ...] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.

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P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P310	Immediately call a POISON CENTER or doctor/physician.
P330	Rinse mouth.
P391	Collect spillage.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P501	Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: t-Octylphenoxy polyethoxy ethanol, Polyethylene glycol tert-octylphenyl ether
Formula	: C ₈ H ₁₇ C ₆ H ₄ (OCH ₂ CH ₂) _n OH
Molecular weight	: no data available
CAS No.	: 9002-93-1
EC-NO.	: 232-658-1

Component	Classification	Concentration
Triton™ X-100	Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H315, H318, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	for molecular biology

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

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Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance

form: liquid color: Colorless to light yellow

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b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	6 °C
f) Initial boiling point and boiling range	270°C
g) Flash point	251 °C
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.0100
n) Water solubility	solubility in water
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

10.6 Hazardous decomposition products

no data available

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 1.900 - 5.000 mg/kg

Remarks: (External MSDS) The value is given in analogy to the following substances:

LD50 Dermal - Rabbit - > 3.000 mg/kg

LD50 Dermal - Rabbit - > 3.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit Result: irritating - 4 h(OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Risk of serious damage to eyes. (Draize Test) Risk of corneal clouding.

Respiratory or skin sensitisation

no data available

Germ cell mutagenicity

Mutagenicity (mammal cell test): Mouse lymphoma test Result: negative (Lit.)

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

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

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 4 - 8,9 mg/l - 96 h

Toxicity to fish semi-static test LC50 - Leuciscus idus (Golden orfe) - 0,26 mg/l - 96h

(OECD Test Guideline 203)

Remarks: The value is given in analogy to the following substances:

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Toxicity to daphnia

and other aquatic

invertebrates

LC50 - Daphnia magna (Water flea) - 18 - 26 mg/l - 48 h

Toxicity to daphnia

and other aquatic

invertebrates

static test EC50 - Daphnia magna (Water flea) - 0,011 mg/l - 48 h

Remarks: (ECOTOX Database)The value is given in analogy to the following substances:

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 1,9 mg/l - 96 h

Remarks: (ECHA)The value is given in analogy to the following substances:

12.2 Persistence and degradability

Chemical Oxygen Demand (COD) 2,19 mg/g

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects. Causes endocrine disruption. Discharge into the environment must be avoided.

SECTION 13:

13.1 Disposal considerations

Product

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Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 3082	Packing group: III	Class: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton-X- 100)	Reportable Quantity(RQ): no data available	Poison Inhalation Hazard: no data available
Environmental Hazards: Yes		

IMDG

UN number: 3082	Packing group: III	EMS-No: no data available
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton-X-100)		

IATA

UN number: 3082	Packing group: III	Class: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triton-X-100)		

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

Further information

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