

Version: Discofinechem8
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MATERIAL SAFETY DATA SHEET

Triton X-100

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers :

Product name : Triton X-100

Product number : 0009036195

Brand : Discovery

Reach No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require registration or the registration is envisaged for a later

Registration deadline.

Cas No. : 9036-19-5

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: Discovery Fine Chemicals Ltd
Unit 4A, Old Forge Road, Ferndown Ind. Estate,
Wimborne, Dorset, BH21 7RR.
United Kingdom

Telephone: +44 (0)1202 874517

Fax: +44 (0)845 0944 385

E-mail: discovery@discofinechem.com

1.4 Emergency telephone : +44 (0)7912 646956

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567

Acute toxicity (category 4) H302

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Short term aquatic hazard (category 1) H400

Long-term (chronic) aquatic hazard (Category 1) H410

For the full text of the H-Statements mentioned in this section see section 16

Classification according to EU Directives 67/548/EEC or 1999/45/EC

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word: Danger

Hazard statement(s)

H302 Harmful if swallowed

H315 Causes skin irritation.

H318 cause serious eye damage

H410 very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P264 Wash skin thoroughly after handling

P273 Avoid release to the environment

P280 Wear protective clothing and eye protection

P301+P312 If SWALLOWED call a poison centre if you feel unwell.

P302+P352 if on SKIN wash with plenty of water

P305+P351+P338 if in EYES rinse with water. Remove contact lenses. Continue rinsing.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula: t-Oct-C₆H₄-(OCH₂CH₂)_xOH, x= 9-10

Molecular Weight: /

Cas No: 9036-19-5

Component

Triton X-100

CAS-No.9036-19-5

E.C.No. /

Classification

acute tox 4. Skin irr.2

Eye DAM., Aquatic Acute 1,

Stot SE3. Stot RE2

Acute aquatic 1

H302,H315,H318,H400, H410

Concentration

<=100%

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled - If breathed in, move person into fresh air. Consult a doctor if feeling unwell.

In case of skin contact – Remove all contaminated clothing. Rinse skin with water. Consult a physician.

In case of eye contact – Flush eyes with plenty of water. Call an ophthalmologist.

If swallowed – Make victim drink water and consult a doctor

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

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media – use water foam carbon dioxide (CO₂) dry powder

Unsuitable extinguishing media – for this substance no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NO_x) hydrogen bromide gas

Combustible

Development of hazardous combustion gases possible in the event of fire

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire..

5.3 Advice for firefighters – stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance.

5.4 Further information – suppress gases and vapours with a spray jet. Prevent extinguishing water from contaminating surface water

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area. For personal protection see section 8.

6.2 Environmental precautions - Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up – pick up and arrange disposal without creating dust. Sweep and shovel up. Keep in suitable closed containers for disposal.

6.4 Reference to other sections - For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: room temperature.

Storage class (TRGS510) : 11 : combustible liquid.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

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 - 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.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril®

Splash protection

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

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 -For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- a) Appearance - Form: liquid, colourless
- b) Odour - no data available
- c) Odour Threshold - no data available
- d) Melting point/range: Solidification point: 6 °C
- e) Initial boiling point and boiling range - > 200 °C at 1,013 hPa
- f) Flammability (solid, gas) - no data available
- g) Upper/lower flammability or explosive limits - no data available
- h) Flash point – 251 °C - closed cup - c.c.
- i) Autoignition temperature - no data available
- j) Decomposition temperature - no data available
- k) pH - 5.0 - 8.0 at 10 g/l at 20 °C
- l) Viscosity – viscosity,kinematic: no data available
- viscosity dynamic: no data available
- m) Water solubility – at 20 °C soluble
- n) Partition coefficient: no data available .
- o) Vapour pressure - no data available
- p) Density - no data available
Relative density – no data available
- q) Relative vapour density - no data available
- r) Particle characteristics - no data available
- s) Explosive properties – no data available

t) Oxidizing properties - no data available
9.2 Other safety information - no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

10.2 Chemical stability

The product is chemically stable under recommended storage conditions

10.3 Possibility of hazardous reactions

Violent reactions possible with : Strong oxidizing agents, Strong acids

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Strong oxidising agents

10.6 Hazardous decomposition products

In the event of fire see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

LD50 Oral - Rat - 1,900 - 5,000 mg/kg

Remarks: (External MSDS)

Symptoms: Vomiting, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract., Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Acute toxicity estimate Oral - 1,900 mg/kg (ATE value derived from LD50/LC50 value)

Inhalation: No data available

LD50 Dermal - Rabbit - > 3,000 mg/kg

Remarks: (External MSDS)

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

Remarks: The value is given in analogy to the following substances: 4-(1,1,3,3 tetramethylbutyl)phenol

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Risk of serious damage to eyes. (Draize Test)

Remarks: Risk of corneal clouding.

Respiratory or skin sensitization

Sensitisation test: - Human

Result: negative

Remarks: (External MSDS)

Patch test on human volunteers did not demonstrate sensitization properties.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

Ingestion of excessive amounts by pregnant animals resulted in maternal and fetal toxicity. Did not show teratogenic effects in animal experiments.

Specific target organ toxicity - single exposure

Inhalation – may cause respiratory irritation – respiratory system

Specific target organ toxicity - repeated exposure

Oral – may cause damage to organs through prolonged or repeated exposure

Aspiration hazard

No data available

11.2 Additional Information

Endocrine disrupting properties

Product

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Ingestion of large amounts may cause: Nausea, Diarrhea

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

12. ECOLOGICAL INFORMATION

12.1 Toxicity - no data available

12.2 Persistence and degradability - no data available

12.3 Bio-accumulative potential - no data available

12.4 Mobility in soil - no data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself according to notice directive on waste 2008/98/EC.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID 3077 IMDG 3077 IATA 3077

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (p-tertiary Octylphenoxy polyethyl alcohol)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (p-tertiary Octylphenoxy polyethyl alcohol)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (p-tertiary Octylphenoxy polyethyl alcohol)

14.3 Transport hazard class(es)

ADR/RID: 9 IMDG :9 IATA :9

14.4 Packaging group

ADR/RID: III IMDG :III IATA :III

14.5 Environmental hazards

ADR/RID: yes IMDG Marine Pollutant: yes IATA: yes

14.6 Special precautions for user

Further Information

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

Authorisations and/or restrictions on use

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). - Octylphenol polyethoxyethanol

This product contains a substance listed on Annex XIV of the REACH Regulation (EC) Nr. 1907/2006. - Octylphenol polyethoxyethanol

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

UK REACH List of substances subject to authorisation (Annex XIV) - Octylphenol polyethoxyethanol
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation - Octylphenol polyethoxyethanol

National legislation Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. – E1 - ENVIRONMENTAL HAZARDS

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of DIR 94/33/EC on the protection of young people at work

15.2 Chemical Safety Assessment –

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 2 and 3

Hazard statement(s)

H302 Harmful if swallowed

H315 Causes skin irritation.

H318 cause serious eye damage

H410 very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P264 Wash skin thoroughly after handling

P273 Avoid release to the environment

P280 Wear protective clothing and eye protection

P301+P312 If SWALLOWED call a poison centre if you feel unwell.

P302+P352 if on SKIN wash with plenty of water

P305+P351+P338 if in EYES rinse with water. Remove contact lenses. Continue rinsing.

Further information

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.

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**APPENDIX
ABBREVIATIONS FULL TEXT**

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
ALARP As low as is reasonably practicable
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulations
COSHH Control of Substances Hazardous to Health **EC Number** European Community Number
EC50 Effective Concentration 50%
ECHA European Chemicals Agency
ELINCS European List of Notified Chemical Substances
EINECS European Inventory of Existing Commercial Chemical Substances **GHS** Globally Harmonised System **HSE** Health & Safety Executive UK
IATA International Air Transport Association
IM Intramuscular
IMDG The International Maritime Dangerous Goods Code
IP Intraperitoneal
IV Intravascular
LD50 Lethal Dose 50%
LOEC Lowest Observable Effective Concentration
LTEL Long Term Exposure Limit
NOEC No Observable Effective Concentration
OECD Organisation for Economic Cooperations and Development
OSHA European Agency for Safety and Health at work
PBT Persistent Bioaccumulative and Toxic substance
PPE Personal Protective Equipment
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Regulations Concerning the International Carriage of Dangerous Goods by Rail
SC Subcutaneous
SDS Safety Data Sheet
SIEF Substance Information Exchange Forum
STEL Short Term Exposure Limit
STOT (RE) Specific Target Organ Toxicity – repeated exposure
STOT (SE) Specific Target Organ Toxicity – single exposure
SVHC Substance of Very High Concern
VOC Volatile Organic Compounds
vPvB Very Persistent and Very Bioaccumulative
WEL Workplace Exposure Limits