Safety Data Sheet

Cat. # 786-513

Triton® X-100

Size: 500ml
SECTION 1: Identification

1.1. Identification
Product form : Substance
Trade name : Triton X-100
Product code : 204T-B

1.2. Recommended use and restrictions on use

1.3. Supplier
Geno Technology, Inc./G-Biosciences
9800 Page Avenue
Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number
Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS US classification
Acute toxicity (oral) Category 4 H302 - Harmful if swallowed
Serious eye damage/eye irritation Category 1 H318 - Causes serious eye damage
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H302 - Harmful if swallowed
                         H318 - Causes serious eye damage
Precautionary statements (GHS US) : P264 - Wash hands, forearms and face thoroughly after handling.
     P270 - Do not eat, drink or smoke when using this product.
     P280 - Wear protective gloves/protective clothing/eye protection/face protection.
     P301+P312 - If swallowed: Call a poison center or 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.
     P310 - Immediately call a poison center or doctor.
     P330 - Rinse mouth.
     P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification
No additional information available

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Name : Triton X-100, Reagent Grade
# Triton X-100 Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

<table>
<thead>
<tr>
<th>Name</th>
<th>Common Name (Synonyms)</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>polyethyleneglycolmono(para-(1,1,3,3-tetramethylbutyl)phenyl)ether</td>
<td>3,6,9,12,15,18,21,24,27,30-decaoxatriacontan-1-ol-30(para-(1,1,3,3-tetramethylbutyl)phenyl)-/ alfenol 3 / alfenol 9 / antarox A-200 / conco NIX-100 / hydrol SW / hyronic PE-250 / igepal CA-630 / marlophen 820 / neutronyx 605 / octoxinol / octoxynol 3 / octoxynol 9 / octylphenol condensed with 12-13 moles ethylene oxide / octylphenoxypolyethoxyetanol,nonionic.surfactant / OPE 30 / para-tertiary-octylphenoxypolyethoxyetanol,nonionic.surfactant / polyoxyethylene(12)octylphenoxyethanol / polyoxyethylene(11)octylphenoxyethanol / polyoxyethylene(10)octylphenoxyethanol / polyoxyethylene(9)octylphenoxyethanol / polyoxyethylene(8)octylphenoxyethanol / polyoxyethylene(7)octylphenoxyethanol / polyoxyethylene(6)octylphenoxyethanol / polyoxyethylene(5)octylphenoxyethanol / polyoxyethylene(4)octylphenoxyethanol / polyoxyethylene(3)octylphenoxyethanol / polyoxyethylene(2)octylphenoxyethanol / polyoxyethylene(1)octylphenoxyethanol / polyoxyethylene(0)octylphenoxyethanol / polyoxyethylene(13)octylphenoxyethanol / polyoxyethylene(9)octylphenoxyethanol / polyoxyethylene(5)octylphenoxyethanol / polyoxyethylene(1)octylphenoxyethanol / polyoxyethylene(polyoxyethylene(13)octylphenyl ether / polyoxyethylene(polyoxyethylene(9)octylphenyl ether / polyoxyethylene(polyoxyethylene(5)octylphenyl ether / polyoxyethylene(polyoxyethylene(1)octylphenyl ether / polyoxyethylene(polyoxyethylene(0)octylphenyl ether / polyoxyethylene(13)octylphenyl ether</td>
<td>(CAS-No.) 9002-93-1</td>
<td>100</td>
<td>Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements : see section 16

### 3.2. Mixtures

Not applicable
SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general: Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact: Wash skin with plenty of water.
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion: Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after eye contact: Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media


5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire: Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Triton X-100
Safety Data Sheet

No additional information available

Triton X
- 100
polyethyleneglycolmono(para-(1,1,3,3-tetramethylbutyl)phenyl)ether (9002-93-1)
No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Pow)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials
No additional information available

10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

<table>
<thead>
<tr>
<th>Substance</th>
<th>ATE US (oral)</th>
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<tbody>
<tr>
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Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability
polyethyleneglycolmono(para-(1,1,3,3-tetramethylbutyl)phenyl)ether (9002-93-1)
Persistence and degradability : Biodegradability in water: no data available.

12.3. Bioaccumulative potential
polyethyleneglycolmono(para-(1,1,3,3-tetramethylbutyl)phenyl)ether (9002-93-1)
Bioaccumulative potential : No bioaccumulation data available.
12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Waste treatment methods

SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not applicable

Transportation of Dangerous Goods
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations
No additional information available

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
No additional information available

SECTION 16: Other information

Full text of H-phrases:

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SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.