1 Identification

- **Product identifier**
  - **Trade name:** Triton X-100
  - **Part number:** N-1487-10ML
  - **CAS Number:** 9036-19-5

- **Application of the substance / the mixture** Laboratory chemicals

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** ULTRA Scientific, Inc.
    250 Smith Street
    North Kingstown, RI 02852
    USA

- **Information department:**
  - Telephone: (401) 294-9400
  - Fax: (401) 295-2300
  - E-mail: regulatory@ultrasci.com

- **Emergency telephone number:**
  - US: (800) 424-9300
  - Outside US: (703) 527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  
  ![GHS07]

  Acute Tox. 4 H302 Harmful if swallowed.

- **Label elements**
  - **GHS label elements**
    The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

  ![GHS07]

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - Triton X-100

- **Hazard statements**
  - Harmful if swallowed.

- **Precautionary statements**
  - Wash thoroughly after handling.
  - Do not eat, drink or smoke when using this product.
  - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  - Rinse mouth.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Trade name: Triton X-100

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 1
    - Fire = 1
    - Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    - HEALTH 1 Health = 1
    - FIRE 1 Fire = 1
    - REACTIVITY 0 Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  9036-19-5 Triton X-100

4 First-aid measures

- Description of first aid measures
- General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Immediately call a doctor.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
Trade name: Triton X-100

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

Protective Action Criteria for Chemicals

<table>
<thead>
<tr>
<th>PAC-1</th>
<th>13 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAC-2</td>
<td>140 mg/m³</td>
</tr>
<tr>
<td>PAC-3</td>
<td>830 mg/m³</td>
</tr>
</tbody>
</table>

7 Handling and storage

Handling:

Precautions for safe handling: No special precautions are necessary if used correctly.

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

Specific end use(s): No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace: Not required.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

Breathing equipment: Not required.

Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Trade name: Triton X-100

- **Penetration time of glove material**  
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection**: Goggles recommended during refilling.

## 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>General Information</em></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
</tr>
<tr>
<td>Form: Fluid</td>
</tr>
<tr>
<td>Color: Not determined.</td>
</tr>
<tr>
<td>Odor: Characteristic</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong> Not determined.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
</tr>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: &gt;200°C (°F)</td>
</tr>
<tr>
<td><strong>Flash point:</strong> 251°C (°F)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong> Not applicable.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
</tr>
<tr>
<td>Decomposition temperature: Not determined.</td>
</tr>
<tr>
<td>Auto igniting: Not determined.</td>
</tr>
<tr>
<td>Danger of explosion: Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
</tr>
<tr>
<td>Lower: Not determined.</td>
</tr>
<tr>
<td>Upper: Not determined.</td>
</tr>
<tr>
<td><strong>Vapor pressure:</strong> Not determined.</td>
</tr>
<tr>
<td><strong>Density at 20°C (68 °F):</strong> 1.07 g/cm³ (lbs/gal)</td>
</tr>
<tr>
<td>Relative density: Not determined.</td>
</tr>
<tr>
<td>Vapor density: Not determined.</td>
</tr>
<tr>
<td>Evaporation rate: Not determined.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with</strong> Water: Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong> Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
</tr>
<tr>
<td>Dynamic: Not determined.</td>
</tr>
<tr>
<td>Kinematic: Not determined.</td>
</tr>
<tr>
<td>VOC content: 0.00 %</td>
</tr>
<tr>
<td>0.0 g/l / 0.00 lb/gl</td>
</tr>
<tr>
<td>Solids content: 0.0 %</td>
</tr>
<tr>
<td>Other information: No further relevant information available.</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

- **Reactivity**: No further relevant information available.
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.
  - **Possibility of hazardous reactions**: No dangerous reactions known.
  - **Conditions to avoid**: No further relevant information available.
- **Incompatible materials**: No further relevant information available.
- **Hazardous decomposition products**: No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
  - **Acute toxicity**:
    - **LD/LC50 values that are relevant for classification**:
      - **ATE (Acute Toxicity Estimate)**
        - Oral LD50 1,800 mg/kg (rat)
      - 9036-19-5 Triton X-100
        - Oral LD50 1,800 mg/kg (rat)
        - Dermal LD50 8,000 mg/kg (rabbit)
  - **Primary irritant effect**:
    - **on the skin**: No irritant effect.
    - **on the eye**: No irritating effect.
  - **Sensitization**: No sensitizing effects known.
  - **Additional toxicological information**:
    - **Carcinogenic categories**
      - **IARC (International Agency for Research on Cancer)**
        - Substance is not listed.
      - **NTP (National Toxicology Program)**
        - Substance is not listed.
      - **OSHA-Ca (Occupational Safety & Health Administration)**
        - Substance is not listed.

12 Ecological information

- **Toxicity**
  - **Aquatic toxicity**: No further relevant information available.
  - **Persistence and degradability**: No further relevant information available.
  - **Behavior in environmental systems**:
    - **Bioaccumulative potential**: No further relevant information available.
    - **Mobility in soil**: No further relevant information available.
  - **Additional ecological information**:
    - **General notes**:
      - Water hazard class 1 (Self-assessment): slightly hazardous for water
      - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - **Results of PBT and vPvB assessment**
      - **PBT**: Not applicable.
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: not regulated
- UN proper shipping name
  - DOT, IMDG, IATA: not regulated
- Transport hazard class(es)
  - DOT, IMDG, IATA: not regulated
- Packing group
  - DOT, IMDG, IATA: not regulated
- Environmental hazards:
  - Not applicable.
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.
- UN "Model Regulation": not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances):
      - Substance is not listed.
    - Section 313 (Specific toxic chemical listings):
      - Substance is not listed.
    - TSCA (Toxic Substances Control Act):
      - Substance is listed.
    - Proposition 65
      - Chemicals known to cause cancer:
        - Substance is not listed.
Trade name: Triton X-100

- **Chemicals known to cause reproductive toxicity for females:**
  Substance is not listed.

- **Chemicals known to cause reproductive toxicity for males:**
  Substance is not listed.

- **Chemicals known to cause developmental toxicity:**
  Substance is not listed.

- **Carcinogenic categories**
  - EPA (Environmental Protection Agency)
    Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH)
    Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    Substance is not listed.

- **GHS label elements**
  The substance is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**

  GHS07

  - **Signal word** Warning

- **Hazard-determining components of labeling:**
  Triton X-100

- **Hazard statements**
  Harmful if swallowed.

- **Precautionary statements**
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
  Rinse mouth.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Date of preparation / last revision** 10/31/2017 / -

- **Abbreviations and acronyms:**
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  VOC: Volatile Organic Compounds (USA, EU)
Trade name: Triton X-100

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>vPvB</td>
<td>very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>REL</td>
<td>Recommended Exposure Limit</td>
</tr>
<tr>
<td>Acute Tox. 4</td>
<td>Acute toxicity – Category 4</td>
</tr>
</tbody>
</table>