1. Identification

Product identifier
Unyvero T1 Sample Tube Cap

Recommended use of the chemical and restrictions on use

Use of the substance/mixture
Use as laboratory reagent.

Uses advised against
Not known

Details of the supplier of the safety data sheet

Company name: Curetis GmbH
Street: Max-Eyth-Str. 42
Place: 71088 Holzgerlingen, Germany
Telephone: +49-(0)7031 – 49195-55
Telex: +49-(0)7031 - 4919519

Responsible Department:
Dr. Gans-Eichler
Chemieberatung GmbH
Raesfeldstr. 22
48149 Muenster

e-mail: info@tge-consult.de
Tel.: +49 (0)251/924520-60

Emergency phone number:
Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200
Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Respiratory or skin sensitization: Resp. Sens. 1
Specific target organ toxicity single exposure: STOT SE 3

Label elements

29 CFR Part 1910.1200
Signal word: Danger

Pictograms:

Hazard statements:
Causes skin irritation
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause respiratory irritation

Precautionary statements:
Avoid breathing dust, fumes, gas, mist, vapors, and spray.
Wear protective gloves, clothing, eye and face protection.
In case of inadequate ventilation, wear respiratory protection.
If skin irritation occurs get medical attention.
Call a poison center or doctor if discomfort persists.
If inhaled, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms call a poison center or doctor.
If in eyes, rinse cautiously with warm water for several minutes. Remove contact lenses if possible.
Continue rinsing.
If eye irritation persists, get medical attention.
Dispose of contents and container to local, regional, national or international regulatory body.

3. Composition/information on ingredients

Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>39450-01-6</td>
<td>Proteinase</td>
<td>- %</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of first aid measures

General information
In case of accident or illness, seek medical attention immediately. Show this safety data sheet to the doctor in attendance.

After inhalation
If breathing is difficult, remove subject to fresh air and keep at rest in a position comfortable for breathing. If subject is experiencing respiratory difficulties, seek medical attention immediately.

After contact with skin
After contact with skin, wash immediately with warm water and soap. In case of skin irritation, consult a physician.

After contact with eyes
In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion
Rinse mouth thoroughly with water. In all cases of doubt, or when symptoms persist, seek medical attention.

Most important symptoms and effects, both acute and delayed
Following inhalation: Asthmatic complaints (prolonged action.)

Indication of any immediate medical attention and special treatment needed
First Aid, decontamination, treatment of symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media
High power water jet.

Specific hazards arising from the chemical
In case of fire, may be released: Carbon monoxide, Carbon dioxide (CO2).

Special protective equipment and precautions for fire-fighters
In case of fire or explosion, do not breathe fumes. Wear a self-contained breathing apparatus and chemical
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Wear personal protection equipment. (See section 8.)

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Refer to chapter 8

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Keep container tightly closed.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

General protection and hygiene measures: See section 8.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Recommended storage temperature: 15-25°C

Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Do not store together with explosives, oxidizing solids, oxidizing liquids, radioactive substances or infectious substances.

Further information on storage conditions

Protect against UV-radiation and sunlight.

8. Exposure controls/personal protection

Control parameters

Exposure controls

Appropriate engineering controls

No special measures are necessary.

Protective and hygiene measures

Keep away from food, drink and animals. Remove contaminated, saturated clothing immediately. Wash hands before and after contact with hand soap and warm water. Avoid contact with eyes and skin.

Eye/face protection

Wear safety glasses or chemical goggles (if splashing is possible). Standards: EN 166 or 29 CFR 1910.133

Hand protection

In case of prolonged or frequently repeated skin contact, wear suitable gloves and personal protective equipment.

Suitable material:

Breakthrough time >= 8h
CR (polychloroprenes, Chloroprene rubber) (0,5 mm)  
NBR (Nitrile rubber) (0,35 mm)  
FKM (fluororubber) (0,4 mm)  
PVC (Polyvinyl chloride) (0,5 mm)  
Butyl rubber (0,5 mm)  
Standards: EN 374

Before using check leak tightness and impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

### Skin protection

Suitable protective clothing: Lab apron.

### Respiratory protection

Respiratory protection necessary at:  
Generation or formation of dust  
Suitable respiratory protective equipment: Particulate Respirators. Standard: 42 CFR Part 84, Filter: R/N/P-99/100  
The filter class must be suitable for the maximum contaminant concentration (gas, vapor, aerosol or particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

### Environmental exposure controls

No special measures are necessary.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Powder, lyophilized</td>
<td></td>
</tr>
<tr>
<td>Colorless</td>
<td></td>
</tr>
<tr>
<td>Characteristic</td>
<td></td>
</tr>
</tbody>
</table>

### Changes in the physical state

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Pour point:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash point:</td>
<td>No information available.</td>
</tr>
<tr>
<td>Sustaining combustion:</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### Explosive properties

Non

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosion limits:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Upper explosion limits:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

### Oxidizing properties

Non

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Bulk density:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Water solubility:</td>
<td>Completely miscible</td>
</tr>
</tbody>
</table>

### Solubility in other solvents

Not determined

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity / dynamic:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
10. Stability and reactivity

Reactivity
No information available.

Chemical stability
Stability: Stable
The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions
Hazardous reactions: Will not occur
No information available.

Conditions to avoid
Keep away from heat.

Incompatible materials
No information available.

Hazardous decomposition products
No information available.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry
Ingestion may be harmful. Inhalation may cause sensitization by inhalation. Skin contact causes skin irritation. Eye contact causes eye irritation.

Toxicokinetics, metabolism and distribution
No information available.

Acute toxicity
Based on available data, the classification criteria are not met.

Irritation and corrosivity
Causes skin irritation.
Causes serious eye irritation.

Sensitizing effects
May cause allergy, asthmatic symptoms or respiratory difficulties if inhaled (Proteinase).
Proteinase, Tritirachium album serine (39450-01-6).
May cause sensitization by inhalation and skin contact.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Specific target organ toxicity (STOT) - single exposure
May cause respiratory irritation (Proteinase)

Specific target organ toxicity (STOT) - repeated exposure
Based on available data, the classification criteria are not met.
NOAEL: This information is not available.

Carcinogenicity (NTP):
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Carcinogenicity (IARC):
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Carcinogenicity (OSHA):
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Aspiration hazard
Based on available data, the classification criteria are not met.

12. Ecological information

Ecotoxicity
No information available.

Persistence and degradability
No information available.

Bioaccumulative potential
No indication of bioaccumulation potential.

Mobility in soil
No information available.

Other adverse effects
No information available.

13. Disposal considerations

Waste treatment methods

Advice on disposal
Dispose in accordance with all applicable regulations. In addition, observe any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled.

Contaminated packaging
Handle contaminated packages in the same way as the substance itself.

14. Transport information

US DOT 49 CFR 172.101
Proper shipping name:
Not a hazardous material with respect to these transport regulations. Not controlled under DOT.

Marine transport (IMDG)
UN proper shipping name:
Not restricted

Other applicable information
Not restricted

Air transport (ICAO)
UN proper shipping name:
Not restricted

Other applicable information
Not restricted
Safety Data Sheet

Unyvero T1 Sample Tube Cap

According to 29 CFR 1910.1200(g)

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

Refer to chapter 6-8.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

U.S. Regulations

National Inventory TSCA

Proteinase is not listed in the TSCA inventory.
No TSCA 12(b) components exist in this product.

National regulatory information

SARA Section 311/312 Hazards:
Proteinase (39450-01-6): Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)
This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health: *2
Flammability: 1
Physical Hazard: 1
Personal Protection: B

NFPA Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 0
Unique Hazard: -

Changes

Revision date: 30.01.2018
Revision No: 2.0
Rev 1.0 Initial release 03.08.2016
Rev 2.0: Editorial changes

Abbreviations and acronyms

CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
IARC: International Agency for Research on Cancer
IBC: Intermediate Bulk Container
IMDG: International Maritime Code for Dangerous Goods
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
MARPOL: marine pollution
NOAEL: No observed adverse effect level
NTP: National Toxicology Program
NOAEL: No observed adverse effect level
Other data

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor’s safety data sheet.)