Cette section présente les différents flacons présents dans le kit. Les fiches de sécurité de tous ces composants sont disponibles dans la langue choisie à la suite du document.

This section shows all the vials in the kit. The Safety Datasheets are available in the selected language in the next part of the document.

Nomenclature of the product

<table>
<thead>
<tr>
<th>Description</th>
<th>Component</th>
<th>Nb of vials</th>
<th>pH</th>
<th>Color</th>
<th>Physical state</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWEEN-1-3-EL-1FLA</td>
<td>TWEEN-1-3</td>
<td>1</td>
<td>-</td>
<td>Colorless</td>
<td>Liquid</td>
</tr>
<tr>
<td>STOP-SOL</td>
<td>STOP SOL</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>Liquid</td>
</tr>
<tr>
<td>SUBS-TMB</td>
<td>SUBS TMB</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Liquid</td>
</tr>
<tr>
<td>CONJ N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>Liquid</td>
<td>Liquid</td>
</tr>
<tr>
<td>MICROPLATE N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CAL0-DIL N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Liquid</td>
</tr>
<tr>
<td>CAL1 N Terminal Procollagen III Peptide</td>
<td></td>
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<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CAL2 N Terminal Procollagen III Peptide</td>
<td></td>
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<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CAL3 N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CAL4 N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CAL5 N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CONT1 N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>CONT2 N Terminal Procollagen III Peptide</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>Solid</td>
</tr>
<tr>
<td>BLISTER-S-WASH</td>
<td></td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>Liquid</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CONJ N Terminal Procollagen III Peptide
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CONJ N Terminal Procollagen III Peptide

Substances contained in this product:
2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  
>= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing ;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3  Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5 :  Firefighting measures

5.1  Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

5.2  Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3  Advice for fire-fighters
Wear Protective clothing. ;
Additional information:

Section 6 :  Accidental release measures

6.1  Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2  Environmental precautions
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3  Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

6.4  Reference to other sections
Additional information:

Section 7 :  Handling and storage

7.1  Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed; Keep store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
**Section 9 : Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate [kg/m²/h]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) [%]</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosive limit [%]</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit [%]</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Vapour pressure [kPa]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density [g/cm³]</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Densities</td>
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</tr>
<tr>
<td>Density [g/cm³]</td>
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<td></td>
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</tr>
<tr>
<td>Relative density [g/cm³]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulk density [g/cm³]</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Critical density [g/cm³]</td>
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<td></td>
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</tr>
<tr>
<td>Solubility (Type : ) [g/L]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (log Pow)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n-octanol/water at pH :</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition energy : kJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity, dynamic (poiseuille)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity, cinematic (cm²/s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 9.2 Other information:

No other relevant data available

**Section 10 : Stability and reactivity**

### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

### 10.2 Chemical stability

### 10.3 Possibility of hazardous reactions
10.4 **Conditions to avoid:**

10.5 **Incompatible materials:**

10.6 **Hazardous decomposition products:**
Does not decompose when used for intended uses. ; Thermal decomposition can lead to the escape of irritating gases and vapors. ;

Section 11 : Toxicological information
Toxicokinetics, metabolism and distribution

11.1 **Information on toxicological effects**

**Substances**

- **Acute toxicity**
  
  **Animal data:**
  Acute oral toxicity:

  Acute dermal toxicity:

  Acute inhalative toxicity:

  Practical experience / human evidence:
  Assessment / Classification:
  General Remark:

  - **Skin corrosion/irritation**

  **Animal data:**

  In-vitro skin test method:
  In-vitro skin test result:
  Assessment / Classification:

  - **Eye damage/irritation**

  **Animal data:**

  In vitro eye test method:
  In vitro eye test result:
  Assessment / Classification:

  - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
    - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- Aspiration hazard

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself
Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:
Section 14: Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
<th>UN No.</th>
<th>UN Proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Hazard label(s)</th>
<th>Packing group</th>
</tr>
</thead>
</table>

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

**Land transport (ADR/RID)**
- Classification code ADR:
- Limited quantities for ADR/RID:
- Packing Instructions for ADR/RID:
- Special packing provisions for ADR/RID:
- Portable tanks and bulk containers Special Provisions:
- ADR Tank Code:
- Vehicle for tank carriage:
- Special provisions for carriage Bulk:
- Special provisions for carriage loading, unloading and handling:
- Special Provisions for carriage Operation:

**Sea transport (IMDG)**
- Marine Pollutant:
- Packing provisions for IMDG:
- Packing Instructions for IMDG:
- IBC Provisions:
- UN tank instructions:
- EmS:
- Properties and observations:

**Inland waterway transport (ADN)**
- Classification Code ADN:
- Limited quantities ADN:
- Carriage permitted:
- Provisions concerning loading and unloading:
- Provisions concerning carriage:
- Remark:

**Air transport (ICAO-TI / IATA-DGR)**
- Subsidiary risk for IATA:
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
- Passenger and Cargo Aircraft Packaging Instructions:
- Passenger and Cargo Aircraft Maximal Net Quantity:
- Cargo Aircraft only Packaging Instructions:
- Cargo Aircraft only Maximal Net Quantity:
- ERG code:
- Special Provisions for IATA:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 07/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: MICROPLATE N Terminal Procollagen III Peptide
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

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(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
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<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: MICROPLATE N Terminal Procollagen III Peptide

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. ;

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;

Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;

Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing ;

Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;

Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing.
Additional information:

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8.);

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth; Wear suitable one-way gloves at work;
7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed. ; Keep-store only in original container or in properly labeled containers ;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
- OSHA (USA)

8.1.2 DNEL/PNEC-values:
- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection: Gloves ; Laboratory coats ;
Respiratory protection: Ensure adequate ventilation ;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
    Measures related to consumer uses of the substance (as such or in mixtures):
Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration [mol/L]</th>
<th>Method</th>
<th>Temperature [°C]</th>
<th>Pressure [kPa]</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point [°C]</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Freezing point [°C]</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Initial boiling point [°C]</td>
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<tr>
<td>Flash point [°C]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate [kg/m²/h]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Lower explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure [kPa]</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density [g/cm³]</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Densities</td>
<td></td>
<td>Density [g/cm³]</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Relative density [g/cm³]</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Bulk density [g/cm³]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Critical density [g/cm³]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility (type : ) (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Partition coefficient (log Pow)</td>
<td></td>
<td></td>
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<td>n-octanol/water at pH :</td>
<td></td>
<td></td>
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<tr>
<td>Auto-ignition temperature [°C]</td>
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<tr>
<td>Decomposition temperature [°C]</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Decomposition energy : kJ</td>
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<tr>
<td>Viscosity</td>
<td></td>
<td>Viscosity, dynamic (poiseuille)</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Viscosity, cinematic (cm²/s)</td>
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<td>Explosive properties</td>
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<td>Oxidising properties</td>
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</tr>
</tbody>
</table>

9.2 Other information:

No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions
10.4 **Conditions to avoid:**

10.5 **Incompatible materials:**

10.6 **Hazardous decomposition products:**

Does not decompose when used for intended uses. ; Thermal decomposition can lead to the escape of irritating gases and vapors. ;

### Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

#### 11.1 Information on toxicological effects

**Substances**

- **Acute toxicity**

**Animal data:**

Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

**Practical experience / human evidence:**

**Assessment / Classification:**

**General Remark:**

- **Skin corrosion/irritation**

**Animal data:**

In-vitro skin test method:

In-vitro skin test result:

**Assessment / Classification:**

- **Eye damage/irritation**

**Animal data:**

In vitro eye test method:

In vitro eye test result:

**Assessment / Classification:**

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- Aspiration hazard

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures

No toxicological information is available for the mixture itself
Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:
Section 14 : Transport information

ADR/RID/AND/IMDG/IATA

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN Proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Hazard label(s)</th>
<th>Packing group</th>
</tr>
</thead>
</table>

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

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing Instructions for IMDG: IBC Instructions:
IMO tank instructions: Tanks and bulk Provisions:
UN tank instructions: Stowage and segregation for IMDG:
EmS:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 07/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL0-DIL N Terminal Procollagen III Peptide
CAS No.: Index No.: EC No.: REACH No.: 

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL0-DIL N Terminal Procollagen III Peptide

Substances contained in this product:
Designation / Trade name: CALO-DIL N Terminal Procollagen III Peptide
Version: US, Page 2 of 12, Revision date: 11/12/2018

### Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
</tr>
</thead>
<tbody>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
</tr>
<tr>
<td>5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1)</td>
<td>55965-84-9</td>
<td>613-167-00-5</td>
<td>247-500-7</td>
</tr>
</tbody>
</table>

#### Hazard pictograms
GHS07-exclam

####Signal word:
Warning

####Hazard and precautionary statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/ vapeurs/aérosols.</td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
</tr>
</tbody>
</table>

### 2.3 Other hazards
The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

### Adverse human health effects:

#### Section 3 : Composition/information on ingredients

#### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>231-598-3</td>
<td></td>
<td>Oxidising solid - Ox. Sol. 3 - H272</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
<td>Serious eye damage/eye irritation - Eye Irrit. 2 - H319 Specific target organ toxicity - single exposure - STOT SE 3 - H335</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.

Following inhalation: In case of respiratory tract irritation, consult a physician.

Following skin contact: After contact with skin, wash immediately with plenty of water and soap.

Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion: Do NOT induce vomiting.

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.

Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing.

Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic.
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)
<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
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</table>

Source: TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m3)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 DNEL/PNEC-values:
- DNEL worker

Source: GESTIS – substance database

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/kg)</th>
<th>Acute – inhalation, systemic effects (mg/m3)</th>
<th>Long-term – inhalation, local effects (mg/m3)</th>
<th>Long-term – inhalation, systemic effects (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
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<td>10377-60-3</td>
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<td></td>
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<td>147</td>
<td>147</td>
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<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
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<td></td>
<td></td>
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<td>2068.62</td>
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- DNEL consumer

Source: GESTIS – substance database

<table>
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<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m3)</th>
<th>Acute – inhalation, systemic effects (mg/m3)</th>
<th>Long-term – inhalation, local effects (mg/m3)</th>
<th>Long-term – inhalation, systemic effects (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
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<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
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</table>

- PNEC

Source: INERIS

<table>
<thead>
<tr>
<th>Substance</th>
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<th>CAS-No</th>
<th>PNEC AQUATIC</th>
<th>PNEC Sediment</th>
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<td></td>
<td></td>
<td></td>
<td>freshwater</td>
<td>marine water</td>
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<tr>
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<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
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<td></td>
<td>intermittent release</td>
<td>freshwater</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
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<td>(mg/L)</td>
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<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
</tbody>
</table>

Source Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))
Designation / Trade name: CALO-DIL N Terminal Procollagen III Peptide
Version: US, Page 5 of 12, Revision date: 11/12/2018
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures): Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical property</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive</td>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Safety Data Sheet

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name:  CALO-DIL N Terminal Procollagen III Peptide
Version: US, Page 7 of 12, Revision date: 11/12/2018

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2 Other information:</td>
<td>No other relevant data available</td>
</tr>
<tr>
<td>Section 10: Stability and reactivity</td>
<td></td>
</tr>
<tr>
<td>10.1 Reactivity</td>
<td>This material is considered to be non-reactive under normal use conditions.</td>
</tr>
<tr>
<td>10.2 Chemical stability</td>
<td></td>
</tr>
<tr>
<td>10.3 Possibility of hazardous reactions</td>
<td></td>
</tr>
<tr>
<td>10.4 Conditions to avoid:</td>
<td></td>
</tr>
<tr>
<td>10.5 Incompatible materials:</td>
<td></td>
</tr>
<tr>
<td>10.6 Hazardous decomposition products:</td>
<td>Does not decompose when used for intended uses.</td>
</tr>
<tr>
<td>Section 11: Toxicological information</td>
<td>Toxicokinetics, metabolism and distribution</td>
</tr>
<tr>
<td>11.1 Information on toxicological effects</td>
<td></td>
</tr>
</tbody>
</table>

#### Table: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure (kPa)</td>
<td></td>
</tr>
<tr>
<td>Vapour density (g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Densities</td>
<td></td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Relative density (g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Bulk density (g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Critical density (g/cm³)</td>
<td></td>
</tr>
<tr>
<td>Solubility (Type : ) (g/L)</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (log Pow)</td>
<td></td>
</tr>
<tr>
<td>Octanol/water at pH:</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td></td>
</tr>
<tr>
<td>Decomposition energy (kJ)</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td></td>
</tr>
<tr>
<td>Viscosity, dynamic (poiseuille)</td>
<td></td>
</tr>
<tr>
<td>Viscosity, cinematic (cm³/s)</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td></td>
</tr>
</tbody>
</table>

### 9.2 Other information:
No other relevant data available

### 10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

### 10.2 Chemical stability

### 10.3 Possibility of hazardous reactions

### 10.4 Conditions to avoid:

### 10.5 Incompatible materials:

### 10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

### 11.1 Information on toxicological effects

#### Substances
- Acute toxicity

#### Animal data:
Acute oral toxicity:
Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:
- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:
- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:
  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:
- Specific target organ toxicity (single exposure)
STOT SE 1 and 2

Animal data:

Other information:

STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:

Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12: Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
Acute (short-term) fish toxicity
Chronic (long-term) fish toxicity
Acute (short-term) toxicity to crustacea
Chronic (long-term) toxicity to crustacea
Acute (short-term) toxicity to algae and cyanobacteria
Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:

Sea transport (IMDG)
- Marine Pollutant: 
- Subsidiary risk(s) for IMDG: 
- Packing provisions for IMDG: 
- Limited quantities for IMDG: 
- Packing instructions for IMDG: 
- IBC Instructions: 
- UN tank instructions: 
- IMO tank instructions: 
- Tanks and bulk Provisions: 
- Stowage and segregation for IMDG: 

Inland waterway transport (ADN)
- Classification Code ADN: 
- Special Provisions ADN: 
- Limited quantities ADN: 
- Excepted quantities ADN: 
- Carriage permitted: 
- Equipment required: 
- Provisions concerning loading and unloading: 
- Number of blue cones/lights: 

Air transport (ICAO-TI / IATA-DGR)
- Subsidiary risk for IATA: 
- Excepted quantity for IATA: 
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions: 
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity: 
- Passenger and Cargo Aircraft Packaging Instructions: 
- Passenger and Cargo Aircraft Maximal Net Quantity: 
- Cargo Aircraft only Packaging Instructions: 
- Cargo Aircraft only Maximal Net Quantity: 
- ERG code: 
- Special Provisions for IATA: 

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 08/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).
16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statments</th>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL1 N Terminal Procollagen III Peptide

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.
USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL1 N Terminal Procollagen III Peptide

Substances contained in this product:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL1 N Terminal Procollagen III Peptide
Version: US, Page 2 of 12, Revision date: 11/12/2018

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
</tr>
</thead>
<tbody>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td></td>
<td>233-826-7</td>
</tr>
<tr>
<td>5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1)</td>
<td>55965-84-9</td>
<td>613-167-00-5</td>
<td>247-500-7</td>
</tr>
</tbody>
</table>

Hazard pictograms
GHS07-exclam

Signal word: Warning

Hazard and precautionary statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/ vapeurs/aérosols.</td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
</tr>
</tbody>
</table>

2.3 Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European CHEmicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>231-398-3</td>
<td></td>
<td>Oxidising solid - Ox. Sol. 3 - H272</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
<td>Serious eye damage/eye irritation - Eye Irrit. 2 - H319</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

### Section 4 : First aid measures

**4.1 Description of first aid measures**

**General information:** Do not leave affected person unattended. ;
**Following inhalation:** In case of respiratory tract irritation, consult a physician. ;
**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap. ;
**Following eye contact:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
**Following ingestion:** Do NOT induce vomiting. ;
**Self-protection of the first aider:**

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

#### 4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

### Section 5 : Firefighting measures

**5.1 Extinguishing media:**

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

**5.2 Special hazards arising from the substance or mixture**

Hazardous combustion products: /

**5.3 Advice for fire-fighters**

Wear Protective clothing. ;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.;

6.2 Environmental precautions
Do not allow to enter into surface water or drains.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.;
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

• OSHA (USA)
### Safety Data Sheet

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

**Designation / Trade name:** CAL1 N Terminal Procollagen III Peptide  
**Version:** US, Page 5 of 12, Revision date: 11/12/2018

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m³)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m³)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 DNEL/PNEC-values:

- DNEL worker

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Acute – dermal, systemic effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- DNEL consumer

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Acute – dermal, systemic effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- PNEC

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>PNEC AQUATIC</th>
<th>PNEC Sediment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>freshwater</td>
<td>marine water</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
</tbody>
</table>

Source: GESTIS – substance database

Source: INERIS
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures);
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive</td>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:
Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- **Eye damage/irritation**

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
STOT SE 1 and 2

Animal data:

Other information:

STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- Aspiration hazard

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures

No toxicological information is available for the mixture itself

Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

ADR/RID/AND/IMDG/IATA

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN Proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Hazard label(s)</th>
<th>Packing group</th>
</tr>
</thead>
</table>

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

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID: Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name:  CAL1 N Terminal Procollagen III Peptide
Version: US, Page 11 of 12, Revision date: 11/12/2018

Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:

Hazard identification No:  Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant:  Subsidiary risk(s) for IMDG:
Packing provisions for IMDG:  Limited quantities for IMDG:
Packing instructions for IMDG:  IBC Instructions:
IBC Provisions:  IMO tank instructions:
UN tank instructions:  Tanks and bulk Provisions:
EmS:  Stowage and segregation for IMDG:

Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN:  Special Provisions ADN:
Limited quantities ADN:  Excepted quantities ADN:
Carriage permitted:  Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage:

Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA:  Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code:  Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2  Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1  Indication of changes
Date of the previous version:08/11/2018
Modifications:

16.2  Abbreviations and acronyms:

16.3  Key literature references and sources for data

16.4  Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).
### 16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL2 N Terminal Procollagen III Peptide
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL2 N Terminal Procollagen III Peptide

Substances contained in this product:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

**Designation / Trade name:** CAL2 N Terminal Procollagen III Peptide  
**Version:** US, Page 2 of 12, Revision date: 11/12/2018

---

### Substance name | CAS n° | Index n° | EC n°
---|---|---|---
Magnesium nitrate | 10377-60-3 | | 233-826-7 |
5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1) | 55965-84-9 | 613-167-00-5 | 247-500-7 |

### Hazard pictograms

| GHS07-exclam |
---|

---

### Signal word:

**Warning**

### Hazard and precautionary statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/ vapeurs/aérosols.</td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
</tr>
</tbody>
</table>

---

### Other hazards

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

---

### Adverse human health effects:

---

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures

**Hazardous ingredients:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
</table>
| Sodium chloride | 7647-14-5 | 231-598-3 | | Oxidising solid - Ox. Sol. 3 - H272  
Serious eye damage/eye irritation - Eye Irrit. 2 - H319  
Skin corrosion/irritation - Skin Irrit. 2 - H315  
Specific target organ toxicity - single exposure - STOT SE 3 - H335 | < 1% | | |
| Magnesium nitrate | 10377-60-3 | 233-826-7 | | | < 1% | | |

---
Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ;
Following inhalation: In case of respiratory tract irritation, consult a physician. ;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;
Following ingestion: Do NOT induce vomiting. ;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing. ;
Additional information:
Section 6: Accidental release measures

6.1 *Personal precautions, protective equipment and emergency procedures*
Emergency procedures: Provide adequate ventilation.;

6.2 *Environmental precautions*
Do not allow to enter into surface water or drains.;

6.3 *Methods and material for containment and cleaning up*
For cleaning up: Suitable material for taking up: Absorbing material, organic ; Other information:

6.4 *Reference to other sections*
Additional information:

Section 7: Handling and storage

7.1 *Precautions for safe handling*
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice;

7.2 *Conditions for safe storage, including any incompatibilities*
Requirements for storage rooms and vessels: Keep container tightly closed.;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 *Specific end uses:*
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 *Control parameters*
Preliminary remark:

8.1.1 *Occupational exposure limits:*

- OSHA (USA)
### Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL2 N Terminal Procollagen III Peptide
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<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m³)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m³)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 **DNEL/PNEC-values:**
- **DNEL worker**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td>147</td>
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<td></td>
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</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **DNEL consumer**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **PNEC**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>PNEC AQUATIC</th>
<th>PNEC Sediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>freshwater</td>
<td>marine water</td>
<td>intermittent release</td>
<td>freshwater</td>
<td>marine water</td>
</tr>
<tr>
<td>(mg/L)</td>
<td>(mg/kg)</td>
<td>(ppm)</td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
</tbody>
</table>

Source: INERIS

---

**Designation / Trade name:** CAL2 N Terminal Procollagen III Peptide
**Version:** US, Page 5 of 12, Revision date: 11/12/2018
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7.

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Colour</th>
<th>Odour</th>
<th>Odour threshold (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pKa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive</td>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 10: Stability and reactivity

#### 10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions

#### 10.4 Conditions to avoid:

#### 10.5 Incompatible materials:

#### 10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

### Section 11: Toxicological information

Toxicokinetics, metabolism and distribution

#### 11.1 Information on toxicological effects

**Substances**

- **Acute toxicity**

**Animal data:**
Acute oral toxicity:
Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
STOT SE 1 and 2

Animal data:

Other information:

STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- Aspiration hazard

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12: Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
Acute (short-term) fish toxicity
Chronic (long-term) fish toxicity
Acute (short-term) toxicity to crustacea
Chronic (long-term) toxicity to crustacea
Acute (short-term) toxicity to algae and cyanobacteria
Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code:
Vehicle for tank carriage:
Special provisions for carriage Bulk:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL2 N Terminal Procollagen III Peptide
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Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No:

Sea transport (IMDG)
Marine Pollutant:
Packing provisions for IMDG:
Packing instructions for IMDG:
IBC Provisions:
UN tank instructions:
EmS:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN:
Limited quantities ADN:
Carriage permitted:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Remark:

Air transport (ICAO-Ti / IATA-DGR)
Subsidiary risk for IATA:
Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code:

Section 15 : Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 08/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).
16.5  Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire oxidizer</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL3 N Terminal Procollagen III Peptide

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL3 N Terminal Procollagen III Peptide

Substances contained in this product:
**Safety Data Sheet**  
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

**Designation / Trade name:** CAL3 N Terminal Procollagen III Peptide  
**Version:** US, Page 2 of 12, Revision date: 11/12/2018

### Substance name, CAS n°, Index n°, EC n°

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
</tr>
</thead>
<tbody>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
</tr>
<tr>
<td>5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1)</td>
<td>55965-84-9</td>
<td>613-167-00-5</td>
<td>247-500-7</td>
</tr>
</tbody>
</table>

### Hazard pictograms

GHS07-exclam

### Signal word:

Warning

### Hazard and precautionary statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

### Adverse human health effects:

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>231-598-3</td>
<td></td>
<td>Oxidising solid - Ox. Sol. 3 - H272 Serious eye damage/eye irritation - Eye Irrit. 2 - H319 Skin corrosion/irritation - Skin Irrit. 2 - H315 Specific target organ toxicity - single exposure - STOT SE 3 - H335</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
<td></td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 4 : First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.;
Following inhalation: In case of respiratory tract irritation, consult a physician.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5 : Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: /

5.3 Advice for fire-fighters

Wear Protective clothing.;
Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

Source: Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000
Substance | EC-No. | CAS-No | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm) | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3) | OSHA Permissible Exposure Limit (PEL) STEL (ppm) | OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)
--- | --- | --- | --- | --- | --- | ---
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 | | | | 
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 | | | | 

Source: TRGS 903, November 2015, BAuA

Substance | EC-No. | CAS-No | BGW (mg/m3) | BGW (ppm)
--- | --- | --- | --- | ---
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 | | 
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 | | 

Source: GESTIS – substance database

Substance | EC-No. | CAS-No | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3)
--- | --- | --- | --- | --- | --- | --- | --- | ---
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 | | | | | | 147-147
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 | | | | | | 2068.62

Source: GESTIS – substance database

Substance | EC-No. | CAS-No | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3)
--- | --- | --- | --- | --- | --- | --- | --- | ---
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 | | | | | | 147-147
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 | | | | | | 

Source: INERIS

Substance | EC-No. | CAS-No | PNEC AQUATIC freshwater (mg/L) | PNEC AQUATIC marine water (mg/kg) | PNEC AQUATIC intermittent release (ppm) | PNEC Sediment freshwater (mg/L) | PNEC Sediment marine water (mg/kg) | PNEC Sediment intermittent release (ppm)
--- | --- | --- | --- | --- | --- | --- | --- | ---
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 | | | | | | 
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 | | | | | | 

Source: INERIS
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection: Gloves ;
Respiratory protection: Ensure adequate ventilation ;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (type : ) (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive</td>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL3 N Terminal Procollagen III Peptide
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<table>
<thead>
<tr>
<th>Limits</th>
<th>Lower explosive limit (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor pressure (kPa)</td>
<td></td>
</tr>
<tr>
<td>Vapor density (g/cm³)</td>
<td></td>
</tr>
</tbody>
</table>

Densities
- Density (g/cm³)
- Relative density (g/cm³)
- Bulk density (g/cm³)
- Critical density (g/cm³)

Solubility (Type : ) (g/L)

Partition coefficient (log Pow): octanol/water at pH:

Auto-ignition temperature (°C)
Decomposition temperature (°C)
Decomposition energy (kJ)

Viscosity
- Viscosity, dynamic (poiseuille)
- Viscosity, cinematic (cm³/s)

Explosive properties
Oxidising properties

9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances
- Acute toxicity

Animal data:
Acute oral toxicity:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL3 N Terminal Procollagen III Peptide
Version: US, Page 8 of 12, Revision date: 11/12/2018

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL3 N Terminal Procollagen III Peptide
Version: US, Page 9 of 12, Revision date: 11/12/2018

- STOT SE 1 and 2

Animal data:

Other information:
- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

### Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

#### 12.1 Aquatic toxicity:
- **Acute (short-term) fish toxicity**
- **Chronic (long-term) fish toxicity**
- **Acute (short-term) toxicity to crustacea**
- **Chronic (long-term) toxicity to crustacea**
- **Acute (short-term) toxicity to algae and cyanobacteria**
- **Toxicity to microorganisms and other aquatic plants / organisms**

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL3 N Terminal Procollagen III Peptide

Version: US, Page 11 of 12, Revision date: 11/12/2018

---

**Special provisions for carriage for loading, unloading and handling:**

**Special Provisions for carriage Operation:**

Transport category (Tunnel restriction code):

---

**Sea transport (IMDG)**

Marine Pollutant:

Subsidiary risk(s) for IMDG:

Packing provisions for IMDG:

Limited quantities for IMDG:

Packing Instructions for IMDG:

IBC Instructions:

UN tank instructions:

Tanks and bulk Provisions:

EmS:

Stowage and segregation for IMDG:

---

**Inland waterway transport (ADN)**

Classification Code ADN:

Special Provisions ADN:

Limited quantities ADN:

Excepted quantities ADN:

Carriage permitted:

Equipment required:

Provisions concerning loading and unloading:

Provisions concerning carriage:

Number of blue cones/lights:

Remark:

---

**Air transport (ICAO-TI / IATA-DGR)**

Subsidiary risk for IATA:

Excepted quantity for IATA:

Passenger and Cargo Aircraft Limited Quantities Packing Instructions:

Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:

Passenger and Cargo Aircraft Packaging Instructions:

Passenger and Cargo Aircraft Maximal Net Quantity:

Cargo Aircraft only Packaging Instructions:

Cargo Aircraft only Maximal Net Quantity:

ERG code:

Special Provisions for IATA:

---

**Section 15 : Regulatory information**

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

15.2 **Chemical Safety Assessment:**

For the following substances of this mixture a chemical safety assessment has been carried out:

---

**Section 16 : Other information**

16.1 **Indication of changes**

Date of the previous version: 08/11/2018

Modifications:

16.2 **Abbreviations and acronyms:**

16.3 **Key literature references and sources for data**

16.4 **Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))**:

See SECTION 2.1 (classification).
### 16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
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<tr>
<th>Code</th>
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<td>H335</td>
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<td>H400</td>
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Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CAL4 N Terminal Procollagen III Peptide

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL4 N Terminal Procollagen III Peptide

Substances contained in this product:
Substance name  | CAS n°  | Index n°  | EC n°  
---|---|---|---
magnesium nitrate | 10377-60-3 |  | 233-826-7  
5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1) | 55965-84-9 | 613-167-00-5 | 247-500-7  

Hazard pictograms
GHS07-exclam

**Signal word:**
Warning

**Hazard and precautionary statements:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/ vapeurs/aérosols.</td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
</tr>
</tbody>
</table>

**2.3 Other hazards**

The mixture does not contain substances classified as ‘Substances of Very High Concern’ (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

**Section 3: Composition/information on ingredients**

**3.2 Mixtures**

**Hazardous ingredients:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
</table>
sodium chloride | 7647-14-5 | 231-598-3 | Oxidising solid - Ox. Sol. 3 - H272 Serious eye damage/eye irritation - Eye Irrit. 2 - H319 Skin corrosion/irritation - Skin Irrit. 2 - H315 Specific target organ toxicity - single exposure - STOT SE 3 - H335 | < 1% | | |
magnesium nitrate | 10377-60-3 | 233-826-7 | Skin corrosion/irritation - Skin Irrit. 2 - H315 Specific target organ toxicity - single exposure - STOT SE 3 - H335 | < 1% | | |
Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.

Following inhalation: In case of respiratory tract irritation, consult a physician.

Following skin contact: After contact with skin, wash immediately with plenty of water and soap.

Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion: Do NOT induce vomiting.

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.

Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:

5.3 Advice for fire-fighters

Wear Protective clothing.

Additional information:
Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

• OSHA (USA)
Substance | EC-No. | CAS-No | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm) | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3) | OSHA Permissible Exposure Limit (PEL) STEL (ppm) | OSHA Permissible Exposure Limit (PEL) STEL (mg/m3)  
--- | --- | --- | --- | --- | --- | ---  
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |  |  |  |  
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |  |  |  |  

Source: TRGS 903, November 2015, BAuA

| Substance | EC-No. | CAS-No | BGW (mg/m3) | BGW (ppm)  
--- | --- | --- | --- | ---  
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |  |  
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |  |  

8.1.2 DNEL/PNEC-values:

- DNEL worker

| Substance | EC-No. | CAS-No | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Acute – dermal, systemic effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, systemic effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3)  
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---  
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |  |  | 147-147 |  |  |  |  
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |  |  | 2068.62 |  | 2068.62 |  |  

- DNEL consumer

| Substance | EC-No. | CAS-No | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Acute – dermal, systemic effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, systemic effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3)  
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---  
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |  |  |  |  |  |  |  |  
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |  |  |  |  |  |  |  |  

- PNEC

| Substance | EC-No. | CAS-No | PNEC AQUATIC freshwater (mg/L) | PNEC AQUATIC marine water (mg/L) | PNEC AQUATIC intermittent release (mg/L) | PNEC Sediment freshwater (mg/L) | PNEC Sediment marine water (mg/L) | PNEC Sediment intermittent release (mg/L)  
--- | --- | --- | --- | --- | --- | --- | --- | ---  
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |  |  |  |  |  |  
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |  |  |  |  |  |  

Source: INERIS
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and Chemical properties

9.1 Information on basic physical and chemical properties

Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td></td>
</tr>
<tr>
<td>Odour threshold (ppm)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pH</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Melting point (°C) |       |                       |        |                  |                |        |
| Freezing point (°C) |       |                       |        |                  |                |        |
| Initial boiling point/boiling range (°C) |       |                       |        |                  |                |        |
| Flash point (°C) |       |                       |        |                  |                |        |
| Evaporation rate (kg/m²/h) |       |                       |        |                  |                |        |
| Flammability (type : ) (%) |       |                       |        |                  |                |        |
| Upper/lower Flammability or explosive | Upper explosive limit (%) |       |        |                  |                |        |

<p>| Source: | INERIS |</p>
<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>PNEC soil</th>
<th>PNEC sewage treatment plant</th>
<th>PNEC air</th>
<th>PNEC secondary poisoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
<td>(ppm)</td>
<td>(mg/L)</td>
</tr>
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<td>231-598-3</td>
<td>7647-14-5</td>
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<td>(mg/kg)</td>
<td>(ppm)</td>
<td>(mg/L)</td>
</tr>
</tbody>
</table>

Source : INERIS

Substance | EC-No. | CAS-No |
-----------|--------|--------|
10377-60-3 / 233-826-7 | 233-826-7 | 10377-60-3 |
7647-14-5 / 231-598-3 | 231-598-3 | 7647-14-5 |
9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:
Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL4 N Terminal Procollagen III Peptide
Version: US, Page 9 of 12, Revision date: 11/12/2018

- STOT SE 1 and 2

Animal data:
Other information:
- STOT SE 3

Practical experience / human evidence:
Other information:
Assessment / Classification:
  - Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:
Animal data:
Assessment / Classification:
Other information

- Aspiration hazard

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12 : Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
Acute (short-term) fish toxicity
Chronic (long-term) fish toxicity
Acute (short-term) toxicity to crustacea
Chronic (long-term) toxicity to crustacea
Acute (short-term) toxicity to algae and cyanobacteria
Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14: Transport information

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</tr>
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<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
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Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Section 15 : Regulatory information

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

15.2  Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1  Indication of changes
Date of the previous version: 08/11/2018
Modifications:

16.2  Abbreviations and acronyms:

16.3  Key literature references and sources for data

16.4  Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
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1.1 Product identifier:

Designation / Trade name: CAL 5 N Terminal Procollagen III Peptide

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

Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
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2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CAL 5 N Terminal Procollagen III Peptide

Substances contained in this product:
Substance name | CAS n° | Index n° | EC n°
magnesium nitrate | 10377-60-3 | 233-826-7 | 
5-chloro-2-méthyl-4-isothiazolin-3-one et 2-méthyl-4-isothiazolin-3-one (3:1) | 55965-84-9 | 613-167-00-5 | 247-500-7 |

**Hazard pictograms**

GHS07-exclam

**Signal word:**
Warning

**Hazard and precautionary statements:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Phrase de risque</th>
</tr>
</thead>
<tbody>
<tr>
<td>H317</td>
<td>Peut provoquer une allergie cutanée</td>
</tr>
<tr>
<td>P261</td>
<td>Éviter de respirer les poussières/fumées/gaz/brouillards/vapeurs/aérosols.</td>
</tr>
<tr>
<td>P272</td>
<td>Les vêtements de travail contaminés ne devraient pas sortir du lieu de travail.</td>
</tr>
<tr>
<td>P280</td>
<td>Porter des gants de protection/des vêtements de protection/un équipement de protection des yeux/du visage.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>EN CAS DE CONTACT AVEC LA PEAU: Laver abondamment à l'eau/...</td>
</tr>
<tr>
<td>P321</td>
<td>Traitement spécifique (voir ... sur cette étiquette).</td>
</tr>
<tr>
<td>P333 + P313</td>
<td>En cas d'irritation ou d'éruption cutanée: Demander un avis médical/Consulter un médecin.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Enlever les vêtements contaminés et les laver avant réutilisation.</td>
</tr>
<tr>
<td>P501</td>
<td>Éliminer le contenu/récipient dans...</td>
</tr>
</tbody>
</table>

### 2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

**Adverse human health effects:**

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures

**Hazardous ingredients:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with [OSHA HCS]</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>231-598-3</td>
<td></td>
<td>Oxidising solid - Ox. Sol. 3 - H272 Serious eye damage/eye irritation - Eye Irrit. 2 - H319 Skin corrosion/irritation - Skin Irrit. 2 - H315 Specific target organ toxicity - single exposure - STOT SE 3 - H335</td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>magnesium nitrate</td>
<td>10377-60-3</td>
<td>233-826-7</td>
<td></td>
<td></td>
<td>&lt; 1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CAL S N Terminal Procollagen III Peptide
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Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4 : First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended.
Following inhalation: In case of respiratory tract irritation, consult a physician.
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Following ingestion: Do NOT induce vomiting.
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5 : Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3 Advice for fire-fighters
Wear Protective clothing.
Additional information:
Section 6 : Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.;

6.2 Environmental precautions
Do not allow to enter into surface water or drains.;

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic; Other information:

6.4 Reference to other sections
Additional information:

Section 7 : Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.; Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.; Hints on storage assembly: Materials to avoid: Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8 : Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
• OSHA (USA)
### Substance Information

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m³)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m³)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** TRGS 903, November 2015, BAuA

### 8.1.2 DNEL/PNEC-values:

- **DNEL worker**

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>147-147</td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2068.62-2068.62</td>
</tr>
</tbody>
</table>

**Source:** GESTIS – substance database

### DNEL consumer

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** GESTIS – substance database

### PNEC

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>freshwater</th>
<th>marine water</th>
<th>intermittent release</th>
<th>freshwater</th>
<th>marine water</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
<td>(ppm)</td>
<td>(mg/L)</td>
<td>(mg/kg)</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Source:** INERIS
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

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8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection: Gloves ;
Respiratory protection: Ensure adequate ventilation ;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Measures related to the service life of the substance in articles:

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

### Appearance

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Colour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid ;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odour</th>
<th>Odour threshold (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pH</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
</table>

| Melting point (°C) | | | |
| Freezing point (°C) | | | |
| Initial boiling point/boiling range (°C) | | | |
| Flash point (°C) | | | |
| Evaporation rate (kg/m²/h) | | | |
| Flammability (type : ) (%) | | | 
| Upper/lower explosion limit (%) | | | |

PNEC soil | PNEC sewage treatment plant | PNEC air | PNEC secondary poisoning

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>PNEC soil</th>
<th>PNEC sewage treatment plant</th>
<th>PNEC air</th>
<th>PNEC secondary poisoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>10377-60-3 / 233-826-7</td>
<td>233-826-7</td>
<td>10377-60-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 10 : Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

Section 11 : Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:
Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
STOT SE 1 and 2

Animal data:

STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:

Animal data:

Assessment / Classification:

- Aspiration hazard

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12: Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:
12.2 Persistence and degradability

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential

Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods

Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)

Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers Instructions:
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Safety Data Sheet
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Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant:
Packing provisions for IMDG: Subsidiary risk(s) for IMDG:
Packing instructions for IMDG: Limited quantities for IMDG:
IBC Provisions: IBC Instructions:
UN tank instructions: IMO tank instructions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN:
Limited quantities ADN:
Carriage permitted:
Provisions concerning loading and unloading:
Provisions concerning carriage:
Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA:
Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity :
Passenger and Cargo Aircraft Packaging Instructions :
Passenger and Cargo Aircraft Maximal Net Quantity :
Cargo Aircraft only Packaging Instructions :
Cargo Aircraft only Maximal Net Quantity :
ERG code:
Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version:08/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).
### 16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H272</td>
<td>May intensify fire oxidizer</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CONT1 N Terminal Procollagen III Peptide
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CONT1 N Terminal Procollagen III Peptide

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:

Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended. ; Remove affected person from the danger area and lay down. ;

Following inhalation: In case of respiratory tract irritation, consult a physician. ; Provide fresh air. ;

Following skin contact: After contact with skin, wash immediately with plenty of water and soap. ; Remove contaminated clothing ;

Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;

Following ingestion: Do NOT induce vomiting. ; Give nothing to eat or drink. ; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. ;

Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date. ;
Effects:

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products:

5.3 Advice for fire-fighters
Wear Protective clothing.
Additional information:

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.; Emergency procedures: Remove persons to safety.; Personal precautions: Use personal protection equipment (see section 8).

6.2 Environmental precautions
Do not allow to enter into surface water or drains.; Ensure waste is collected and contained.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.; Avoid: Eye contact; Avoid: Generation/formation of aerosols; Avoid: Skin contact; Avoid: Inhalation; In the immediate working surroundings there must be: Emergency shower installed; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously; Wash contaminated clothing immediately.; Wash hands before breaks and after work.;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.; Do not pipet by mouth.; Wear suitable one-way gloves at work;
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CONT1 N Terminal Procollagen III Peptide
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Advice on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice;
Observe technical data sheet;
Remove contaminated, saturated clothing;
Wash hands before breaks and after work;

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels:
Keep container tightly closed;
Keep-store only in original container or in properly labeled containers;

Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
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<tr>
<td>Melting point (°C)</td>
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<tr>
<td>Freezing point (°C)</td>
<td></td>
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</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
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<td></td>
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<tr>
<td>Flash point (°C)</td>
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<tr>
<td>Evaporation rate (kg/m²/h)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Flammability (type : %)</th>
<th>Upper/lower flammability or explosive limits</th>
<th>Upper explosive limit (%)</th>
<th></th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure (kPa)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Vapour density (g/cm³)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Densities</th>
<th>Density (g/cm³)</th>
<th>Relative density (g/cm³)</th>
<th>Bulk density (g/cm³)</th>
<th>Critical density (g/cm³)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility (Type : g/L)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (log Pow)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition coefficient (log Pow)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-octanol/water at pH</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition energy : kJ</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Viscosity, dynamic (poiseuille)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity, cinematic (cm/s)</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Density (g/L)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9.2 Other information:
No other relevant data available

Section 10: Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions
10.4 **Conditions to avoid:**

10.5 **Incompatible materials:**

10.6 **Hazardous decomposition products:**
Does not decompose when used for intended uses. ; Thermal decomposition can lead to the escape of irritating gases and vapors. ;

**Section 11 : Toxicological information**
Toxicokinetics, metabolism and distribution

11.1 **Information on toxicological effects**

**Substances**

- **Acute toxicity**

  **Animal data:**
  Acute oral toxicity:

  Acute dermal toxicity:

  Acute inhalative toxicity:

  Practical experience / human evidence:
  Assessment / Classification:
  General Remark:

  - **Skin corrosion/irritation**

    **Animal data:**

    In-vitro skin test method:
    In-vitro skin test result:
    Assessment / Classification:

  - **Eye damage/irritation**

    **Animal data:**

    In vitro eye test method:
    In vitro eye test result:
    Assessment / Classification:

  - **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

    - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- Aspiration hazard

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself
Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
- Acute (short-term) fish toxicity
- Chronic (long-term) fish toxicity
- Acute (short-term) toxicity to crustacea
- Chronic (long-term) toxicity to crustacea
- Acute (short-term) toxicity to algae and cyanobacteria
- Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
- Biodegradation:
- Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
- Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods
- Waste treatment options:
  Dispose of waste according to applicable legislation.

Other disposal recommendations:
- Additional information:
Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
<td></td>
</tr>
<tr>
<td>UN Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
</tr>
<tr>
<td>Hazard label(s)</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)
- Classification code ADR:
- Limited quantities for ADR/RID:
- Packing Instructions for ADR/RID:
- Special packing provisions for ADR/RID:
- Mixed packing provisions:
- Portable tanks and bulk containers Special Provisions:
- ADR Tank Code:
- Vehicle for tank carriage:
- Special provisions for carriage Bulk:
- Special provisions for carriage for loading, unloading and handling:
- Special Provisions for carriage Operation:
- Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
- Marine Pollutant:
- Packing provisions for IMDG:
- Limited quantities for IMDG:
- Packing Instructions for IMDG:
- IBC Instructions:
- UN tank instructions:
- IMO tank instructions:
- Tanks and bulk Provisions:
- EmS : Stowage and segregation for IMDG:
- Properties and observations:

Inland waterway transport (ADN)
- Classification Code ADN:
- Limited quantities ADN:
- Carriage permitted:
- Equipment required:
- Provisions concerning loading and unloading:
- Number of blue cones/lights:
- Provisions concerning carriage:
- Remark:

Air transport (ICAO-TI / IATA-DGR)
- Subsidiary risk for IATA:
- Excepted quantity for IATA:
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
- Passenger and Cargo Aircraft Packaging Instructions:
- Passenger and Cargo Aircraft Maximal Net Quantity:
- Cargo Aircraft only Packaging Instructions:
- Cargo Aircraft only Maximal Net Quantity:
- ERG code: Special Provisions for IATA:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out :

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 07/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: CONT2 N Terminal Procollagen III Peptide
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.
USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: CONT2 N Terminal Procollagen III Peptide

Substances contained in this product:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: CONT2 N Terminal Procollagen III Peptide

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---

### Hazard pictograms

### Signal word:

### Hazard and precautionary statements:

#### 2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

---

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures

**Hazardous ingredients:**


**Additional information:**

Full text of H- and EUH- phrases: see SECTION 16.

---

### Section 4: First aid measures

#### 4.1 Description of first aid measures

**General information:** Do not leave affected person unattended. Remove affected person from the danger area and lay down.

**Following inhalation:** In case of respiratory tract irritation, consult a physician. Provide fresh air.

**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing;

**Following eye contact:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**Following ingestion:** Do NOT induce vomiting. Give nothing to eat or drink. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

**Self-protection of the first aider:**

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.
Effects:

4.3  **Indication of any immediate medical attention and special treatment needed**

Notes for the doctor:

**Section 5: Firefighting measures**

5.1  **Extinguishing media:**
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2  **Special hazards arising from the substance or mixture**
Hazardous combustion products:

5.3  **Advice for fire-fighters**
Wear Protective clothing.

Additional information:

**Section 6: Accidental release measures**

6.1  **Personal precautions, protective equipment and emergency procedures**
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2  **Environmental precautions**
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3  **Methods and material for containment and cleaning up**
For cleaning up: Suitable material for taking up: Absorbing material, organic ; Other information:

6.4  **Reference to other sections**

Additional information:

**Section 7: Handling and storage**

7.1  **Precautions for safe handling**
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed; Keep store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
- OSHA (USA)

8.1.2 DNEL/PNEC-values:
- DNEL worker
  - DNEL consumer
  - PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
Measures related to consumer uses of the substance (as such or in mixtures):
### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Melting point (°C)</strong></td>
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<td></td>
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<tr>
<td><strong>Freezing point (°C)</strong></td>
<td></td>
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<tr>
<td><strong>Initial boiling point (°C)</strong></td>
<td></td>
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<tr>
<td><strong>Flash point (°C)</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Evaporation rate (kg/m²/h)</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Flammability (type : [%])</strong></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper/lower flammability or explosive limits</th>
<th>Upper explosive limit (%)</th>
<th>Lower explosive limit (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vapour pressure (kPa)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vapour density (g/cm³)</strong></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Densities</th>
<th>Value</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Density [g/cm³]</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relative density [g/cm³]</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bulk density [g/cm³]</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Critical density [g/cm³]</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solubility (type : [g/L])</th>
<th>Value</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Partition coefficient (log Pow)</th>
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<table>
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<th>Auto-ignition temperature (°C)</th>
<th>Value</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Decomposition temperature (°C)</th>
<th>Value</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Decomposition energy : kJ</th>
<th>Value</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Viscosity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Viscosity, dynamic (poiseuille)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Viscosity, cinematic (cm²/s)</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosive properties</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oxidising properties</td>
<td>Value</td>
</tr>
</tbody>
</table>

#### 9.2 Other information:

No other relevant data available

### Section 10: Stability and reactivity

#### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions
10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. ; Thermal decomposition can lead to the escape of irritating gases and vapors. ;

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 **Mixtures**
No toxicological information is available for the mixture itself
Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
- Acute (short-term) fish toxicity
- Chronic (long-term) fish toxicity
- Acute (short-term) toxicity to crustacea
- Chronic (long-term) toxicity to crustacea
- Acute (short-term) toxicity to algae and cyanobacteria
- Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
- Biodegradation:
  - Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
- Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods
- Waste treatment options:
  - Dispose of waste according to applicable legislation.

Other disposal recommendations:
- Additional information:
Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)
- Classification code ADR:
- Limited quantities for ADR/RID:
- Packing Instructions for ADR/RID:
- Special packing provisions for ADR/RID:
- Portable tanks and bulk containers Instructions:
- ADR Tank Code:
- Vehicle for tank carriage:
- Special provisions for carriage Bulk:
- Special provisions for carriage loading, unloading and handling:
- Special Provisions for carriage Operation:
- Transport category (Tunnel restriction code):

Sea transport (IMDG)
- Marine Pollutant:
- Packing provisions for IMDG:
- Packing Instructions for IMDG:
- IBC Instructions:
- UN tank instructions:
- Tanks and bulk Provisions:
- EmS :
- Stowage and segregation for IMDG:

Inland waterway transport (ADN)
- Classification Code ADN:
- Limited quantities ADN:
- Excepted quantities ADN:
- Equipment required:
- Number of blue cones/lights:

Air transport (ICAO-TI / IATA-DGR)
- Subsidiary risk for IATA:
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
- Passenger and Cargo Aircraft Packaging Instructions:
- Passenger and Cargo Aircraft Maximal Net Quantity:
- Cargo Aircraft only Packaging Instructions:
- Cargo Aircraft only Maximal Net Quantity:
- ERG code:
- Special Provisions for IATA:
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 07/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:
Designation / Trade name: BLISTER-5-WASH
CAS No.: Index No: EC No: REACH No:

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:
Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:
France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d'appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements
Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: BLISTER-5-WASH

Substances contained in this product:
**Safety Data Sheet**

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: BLISTER-5-WASH
Version: US, Page 2 of 11, Revision date: 08/11/2018

---

**Hazard pictograms**

---

**Signal word:**

---

**Hazard and precautionary statements:**

---

**2.3 Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \( \geq 0.1\% \) published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

---

**Adverse human health effects:**

---

**Section 3: Composition/information on ingredients**

---

**3.2 Mixtures**

**Hazardous ingredients:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium chloride</td>
<td>7647-14-5</td>
<td>231-598-3</td>
<td></td>
<td></td>
<td>( \geq 25% )</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Additional information:**

Full text of H- and EUH-phrases: see SECTION 16.

---

**Section 4: First aid measures**

---

**4.1 Description of first aid measures**

**General information:** Do not leave affected person unattended.

**Following inhalation:** In case of respiratory tract irritation, consult a physician.

**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap.

**Following eye contact:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**Following ingestion:** Do NOT induce vomiting.

**Self-protection of the first aider:**

---

**4.2 Most important symptoms and effects, both acute and delayed**

**Symptoms:** No known symptoms to date.

**Effects:**

4.3  Indication of any immediate medical attention and special treatment needed

Notes for the doctor:

Section 5: Firefighting measures

5.1  Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2  Special hazards arising from the substance or mixture
Hazardous combustion products: /

5.3  Advice for fire-fighters
Wear Protective clothing.;
Additional information:

Section 6: Accidental release measures

6.1  Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.;

6.2  Environmental precautions
Do not allow to enter into surface water or drains.;

6.3  Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic;
Other information:

6.4  Reference to other sections
Additional information:

Section 7: Handling and storage

7.1  Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.;
Fire preventions:
Do not eat, drink or smoke in areas where reagents are handled.;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice;

7.2  Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.;
Hints on storage assembly:
Materials to avoid:
7.3 Specific end uses:
Recommendations on specific end uses:

Section 8 : Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
- OSHA (USA)

Source : Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) from 29 CFR 1910.1000

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source : TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m3)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 DNEL/PNEC-values:
- DNEL worker

Source : GESTIS – substance database

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m3)</th>
<th>Acute – inhalation, systemic effects (mg/m3)</th>
<th>Long-term – inhalation, local effects (mg/m3)</th>
<th>Long-term – inhalation, systemic effects (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- DNEL consumer

Source : GESTIS – substance database

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m3)</th>
<th>Acute – inhalation, systemic effects (mg/m3)</th>
<th>Long-term – inhalation, local effects (mg/m3)</th>
<th>Long-term – inhalation, systemic effects (mg/m3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7647-14-5 / 231-598-3</td>
<td>231-598-3</td>
<td>7647-14-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.2 Exposure controls

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 10 : Stability and reactivity

10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

Section 11 : Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity
Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:

  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

  - Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name:  BLISTER-5-WASH
Version: US, Page 8 of 11, Revision date: 08/11/2018

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:

Remark:

11.1.1 **Mixtures**
No toxicological information is available for the mixture itself

**Section 12 : Ecological information**

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

12.1 **Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria
Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:

Abiotic Degradation:
Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

Land transport (ADR/RID)
Classification code ADR: Special Provisions for ADR/RID:
Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
Packing Instructions for ADR/RID:
Special packing provisions for ADR/RID:
Mixed packing provisions: Portable tanks and bulk containers
Portable tanks and bulk containers Special Provisions:
ADR Tank Code: ADR Tank special provisions:
Vehicle for tank carriage: Special provisions for carriage Packages:
Special provisions for carriage Bulk:
Special provisions for carriage for loading, unloading and handling:
Special Provisions for carriage Operation:
Hazard identification No: Transport category (Tunnel restriction code):

Sea transport (IMDG)
Marine Pollutant: Subsidiary risk(s) for IMDG:
Packing provisions for IMDG: Limited quantities for IMDG:
Packing instructions for IMDG: IBC Instructions:
IBC Provisions: IMO tank instructions:
UN tank instructions: Tanks and bulk Provisions:
EmS : Stowage and segregation for IMDG:
Properties and observations:

Inland waterway transport (ADN)
Classification Code ADN: Special Provisions ADN:
Limited quantities ADN: Excepted quantities ADN:
Carriage permitted: Equipment required:
Provisions concerning loading and unloading:
Provisions concerning carriage: Number of blue cones/lights:
Remark:

Air transport (ICAO-TI / IATA-DGR)
Subsidiary risk for IATA: Excepted quantity for IATA:
Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
Passenger and Cargo Aircraft Packaging Instructions:
Passenger and Cargo Aircraft Maximal Net Quantity:
Cargo Aircraft only Packaging Instructions:
Cargo Aircraft only Maximal Net Quantity:
ERG code: Special Provisions for IATA:

Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version:22/10/2018
Modifications:
16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: STOP-SOL STOP SOL

CAS No.: Index No: EC No: REACH No:

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

Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone : +33 4 66 9 67 05 - Fax : +33 4 66 79 67 50
E‐Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

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Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30 pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: STOP-SOL STOP SOL

Substances contained in this product:
**Hazard pictograms**

**Signal word:**

**Hazard and precautionary statements:**

### 2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

---

### Section 3: Composition/information on ingredients

#### 3.2 Mixtures

**Hazardous ingredients:**

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS n°</th>
<th>Index n°</th>
<th>EC n°</th>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Concentration (%)</th>
<th>SCL</th>
<th>M-factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>sulphuric acid</td>
<td>7664-93-9</td>
<td>016-020-00-8</td>
<td>231-639-5</td>
<td>Skin corrosion/irritation - Skin Corr. 1A - H314</td>
<td>&lt; 3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

---

### Section 4: First aid measures

#### 4.1 Description of first aid measures

**General information:** Do not leave affected person unattended.

**Following inhalation:** In case of respiratory tract irritation, consult a physician.

**Following skin contact:** After contact with skin, wash immediately with plenty of water and soap.

**Following eye contact:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

**Following ingestion:** Do NOT induce vomiting.
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.
Effects:

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor:

Section 5: Firefighting measures

5.1 Extinguishing media:
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products:

5.3 Advice for fire-fighters
Wear Protective clothing.
Additional information:

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Emergency procedures: Provide adequate ventilation.

6.2 Environmental precautions
Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
For cleaning up: Suitable material for taking up: Absorbing material, organic
Other information:

6.4 Reference to other sections
Additional information:

Section 7: Handling and storage

7.1 Precautions for safe handling
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes.
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled.
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed.
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m³)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (ppm)</th>
<th>OSHA Permissible Exposure Limit (PEL) STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9 / 231-639-5</td>
<td>231-639-5</td>
<td>7664-93-9</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000

Source: TRGS 903, November 2015, BAuA

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>BGW (mg/m³)</th>
<th>BGW (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9 / 231-639-5</td>
<td>231-639-5</td>
<td>7664-93-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 DNEL/PNEC-values:
- DNEL worker

<table>
<thead>
<tr>
<th>Substance</th>
<th>EC-No.</th>
<th>CAS-No</th>
<th>Acute – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, local effects (mg/kg/day)</th>
<th>Long-term – dermal, systemic effects (mg/kg/day)</th>
<th>Acute – inhalation, local effects (mg/m³)</th>
<th>Acute – inhalation, systemic effects (mg/m³)</th>
<th>Long-term – inhalation, local effects (mg/m³)</th>
<th>Long-term – inhalation, systemic effects (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9 / 231-639-5</td>
<td>231-639-5</td>
<td>7664-93-9</td>
<td></td>
<td></td>
<td></td>
<td>0.1-0.1</td>
<td>0.05-0.05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: GESTIS – substance database

- DNEL consumer

Source: GESTIS – substance database
### Safety Data Sheet

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: STOP-SOL  STOP SOL
Version: US, Page 5 of 11, Revision date: 08/11/2018

**8.2 Exposure controls**

8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields ;
Skin protection: Gloves ;
Respiratory protection: Ensure adequate ventilation ;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):

Measures related to the service life of the substance in articles:

### Section 9 : Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid ;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td></td>
</tr>
<tr>
<td>Odour threshold (ppm)</td>
<td></td>
</tr>
</tbody>
</table>
### Section 10: Stability and reactivity

#### 10.1 Reactivity
This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions

#### 10.4 Conditions to avoid:

#### 10.5 Incompatible materials:

#### 10.6 Hazardous decomposition products:
Does not decompose when used for intended uses.

### Section 11: Toxicological information
Toxicokinetics, metabolism and distribution
11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Species</th>
<th>Method</th>
<th>Exposure time</th>
<th>Result/evaluation</th>
<th>Score</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-93-9 / 231-639-5</td>
<td>Rabbit</td>
<td>occlusive.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:

Animal data:
Assessment / Classification:
  - Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:
Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 Mixtures
No toxicological information is available for the mixture itself

Section 12: Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.
12.1 Aquatic toxicity:
Acute (short-term) fish toxicity
Chronic (long-term) fish toxicity
Acute (short-term) toxicity to crustacea
Chronic (long-term) toxicity to crustacea
Acute (short-term) toxicity to algae and cyanobacteria
Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:
Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:
Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:

Section 14 : Transport information

ADR/RID/AND/IMDG/IATA

<table>
<thead>
<tr>
<th>UN No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN Proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: STOP-SOL  STOP SOL
Version: US, Page 10 of 11, Revision date: 08/11/2018

<table>
<thead>
<tr>
<th>Transport hazard class(es)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard label(s)</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
</tr>
</tbody>
</table>

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

**Land transport (ADR/RID)**
- Classification code ADR: Special Provisions for ADR/RID:
- Limited quantities for ADR/RID: Excepted Quantities for ADR/RID:
- Packing Instructions for ADR/RID: Special packing provisions for ADR/RID:
- ADR Tank Code: ADR Tank special provisions:
- Vehicle for tank carriage: Special provisions for carriage Packages:
- Special provisions for carriage Bulk:
- Special provisions for carriage for loading, unloading and handling:
- Special Provisions for carriage Operation:
- Transport category (Tunnel restriction code):

**Sea transport (IMDG)**
- Marine Pollutant: Subsidiary risk(s) for IMDG:
- Packing provisions for IMDG: Limited quantities for IMDG:
- Packing instructions for IMDG: IBC Instructions:
- IBC Provisions: IMO tank instructions:
- UN tank instructions: Tanks and bulk Provisions:
- Special Provisions for carriage:
- Stowage and segregation for IMDG:

**Inland waterway transport (ADN)**
- Classification Code ADN: Special Provisions ADN:
- Limited quantities ADN: Excepted quantities ADN:
- Carriage permitted: Equipment required:
- Number of blue cones/lights:

**Air transport (ICAO-TI / IATA-DGR)**
- Subsidiary risk for IATA: Excepted quantity for IATA:
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
- Passenger and Cargo Aircraft Packaging Instructions:
- Passenger and Cargo Aircraft Maximal Net Quantity:
- Cargo Aircraft only Packaging Instructions:
- Cargo Aircraft only Maximal Net Quantity:
- Special Provisions for IATA:

**Section 15 : Regulatory information**

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

**15.2 Chemical Safety Assessment:**
For the following substances of this mixture a chemical safety assessment has been carried out:
Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 08/10/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):

<table>
<thead>
<tr>
<th>Code</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage.</td>
</tr>
</tbody>
</table>
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: SUBS-TMB SUBS TMB

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

Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;

Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 Emergency telephone number:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59

Ce numéro permet d’obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: SUBS-TMB SUBS TMB

Substances contained in this product:
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: SUBS-TMB SUBS TMB
Version: US, Page 2 of 10, Revision date: 08/11/2018

Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards
The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures
General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.;
Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.; Give nothing to eat or drink.; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: No known symptoms to date.;
Effects:

4.3 **Indication of any immediate medical attention and special treatment needed**

Notes for the doctor:

Section 5: Firefighting measures

5.1 **Extinguishing media:**

Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire.

5.2 **Special hazards arising from the substance or mixture**

Hazardous combustion products: /

5.3 **Advice for fire-fighters**

Wear Protective clothing.

Additional information:

Section 6: Accidental release measures

6.1 **Personal precautions, protective equipment and emergency procedures**

Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8).

6.2 **Environmental precautions**

Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained.

6.3 **Methods and material for containment and cleaning up**

For cleaning up: Suitable material for taking up: Absorbing material, organic ; 
Other information:

6.4 **Reference to other sections**

Additional information:

Section 7: Handling and storage

7.1 **Precautions for safe handling**

Protective measures:

Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ; Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ; Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels: Keep container tightly closed; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:

- OSHA (USA)

8.1.2 DNEL/PNEC-values:

- DNEL worker

- DNEL consumer

- PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7

8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:

8.2.3 Environmental exposure controls:
Consumer exposure control

Measures related to consumer uses of the substance (as such or in mixtures):
### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial boiling point</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaporation rate (kg/m²/h)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability type (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or explosive limits (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure (kPa)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour density (g/cm³)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Densities**

- Density [g/cm³]
- Relative density [g/cm³]
- Bulk density [g/cm³]
- Critical density [g/cm³]

**Solubility (Type : ) (g/L)**

**Partition coefficient (log Pow)**

**n-octanol/water at pH :**

**Auto-ignition temperature (°C)**

**Decomposition temperature (°C)**

**Decomposition energy : kJ**

**Viscosity**

- Viscosity, dynamic (poiseuille)
- Viscosity, cinematic (cm²/s)

**Explosive properties**

**Oxidising properties**

#### 9.2 Other information:

No other relevant data available

### Section 10: Stability and reactivity

#### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions
10.4 Conditions to avoid:

10.5 Incompatible materials:

10.6 Hazardous decomposition products:
Does not decompose when used for intended uses. Thermal decomposition can lead to the escape of irritating gases and vapors.

Section 11: Toxicological information
Toxicokinetics, metabolism and distribution

11.1 Information on toxicological effects

Substances

- Acute toxicity

Animal data:
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- Skin corrosion/irritation

Animal data:

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- Eye damage/irritation

Animal data:

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
  - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:
Animal data:

Other information:
Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:
Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

Practical experience / human evidence:
Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:
Experimental data: viscosity data: see SECTION 9.
Assessment / Classification:
Remark:

11.1.1 **Mixtures**

No toxicological information is available for the mixture itself
Section 12 : Ecological information
In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
- Acute (short-term) fish toxicity
- Chronic (long-term) fish toxicity
- Acute (short-term) toxicity to crustacea
- Chronic (long-term) toxicity to crustacea
- Acute (short-term) toxicity to algae and cyanobacteria
- Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
Biodegradation:
- Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:
Additional ecotoxicological information:

Section 13 : Disposal considerations

13.1 Waste treatment methods
Waste treatment options:
Dispose of waste according to applicable legislation.

Other disposal recommendations:
Additional information:
**Section 14 : Transport information**

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
</tr>
<tr>
<td>UN Proper shipping name</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
</tr>
<tr>
<td>Hazard label(s)</td>
</tr>
<tr>
<td>Packing group</td>
</tr>
</tbody>
</table>

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

**Land transport (ADR/RID)**
- Classification code ADR:
- Limited quantities for ADR/RID:
- Packing Instructions for ADR/RID:
- Special packing provisions for ADR/RID:
- Mixed packing provisions:
- Portable tanks and bulk containers Special Provisions:
- ADR Tank Code:
- Vehicle for tank carriage:
- Special provisions for carriage Bulk:
- Special provisions for carriage for loading, unloading and handling:
- Special Provisions for carriage Operation:
- Hazard identification No:
- Transport category (Tunnel restriction code):

**Sea transport (IMDG)**
- Marine Pollutant:
- Packing provisions for IMDG:
- Packing Instructions for IMDG:
- IBC Provisions:
- UN tank instructions:
- EmS:
- Properties and observations:

**Inland waterway transport (ADN)**
- Classification Code ADN:
- Limited quantities ADN:
- Carriage permitted:
- Provisions concerning loading and unloading:
- Provisions concerning carriage:
- Number of blue cones/lights:
- Remark:

**Air transport (ICAO-TI / IATA-DGR)**
- Subsidiary risk for IATA:
- Passenger and Cargo Aircraft Limited Quantities Packing Instructions:
- Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity:
- Passenger and Cargo Aircraft Packaging Instructions:
- Passenger and Cargo Aircraft Maximal Net Quantity:
- Cargo Aircraft only Packaging Instructions:
- Cargo Aircraft only Maximal Net Quantity:
- ERG code:

**Special Provisions for IATA:**
Section 15 : Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16 : Other information

16.1 Indication of changes
Date of the previous version: 08/10/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):
Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Designation / Trade name: TWEEN-1-3-EL-1FLA TWEEN-1-3

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

Relevant identified uses: Use of the substance or mixture for In Vitro Diagnostic use only;
Uses advised against:

1.3 Details of the supplier of the safety data sheet:

Supplier:
Name: CISBIO BIOASSAYS - CBBIOA -
Address: Parc Marcel Boiteux - BP 84175 - 30200 Codolet, France
Phone: +33 4 66 9 67 05 - Fax: +33 4 66 79 67 50
E-Mail (competent person): msds@cisbio.com

1.4 EMERGENCY TELEPHONE NUMBER:

France - Numéro ORFILA (INRS) : + 33 (0)1 45 42 59 59
Ce numéro permet d'obtenir les coordonnées de tous les centres Anti-poison Français. Ces centres anti-poison et de toxicovigilance fournissent une aide médicale gratuite (hors coût d’appel), 24 heures sur 24 et 7 jours sur 7.

USA & Canada - Phone: 1-888-963-456 (1)
Other countries - Phone: +33 (0) 466 796 737 (2)
http://www.cisbio.com
(1) Available from Monday to Thursday 8:30 am to 5:30pm GMT-5 and Friday: 8:30 am to 3:00pm GMT-5
(2) Available from Monday to Friday 9:00 am to 5:30 pm GMT+2

Section 2: Hazards identification

2.1 Classification of the substance or mixture:

<table>
<thead>
<tr>
<th>Classification in accordance with 29 CFR 1910 (OSHA HCS)</th>
<th>Category code</th>
<th>Hazard statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>The substance or mixture is not classified as hazardous in accordance with 29 CFR 1910 (OSHA HCS)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

2.2 Label elements

Labelling according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Product identifier:
Designation / Trade name: TWEEN-1-3-EL-1FLA TWEEN-1-3

Substances contained in this product:
Hazard pictograms

Signal word:

Hazard and precautionary statements:

2.3 Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

Adverse human health effects:

Section 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients:


Additional information:
Full text of H- and EUH-phrases: see SECTION 16.

Section 4: First aid measures

4.1 Description of first aid measures

General information: Do not leave affected person unattended.; Remove affected person from the danger area and lay down.;
Following inhalation: In case of respiratory tract irritation, consult a physician.; Provide fresh air.;
Following skin contact: After contact with skin, wash immediately with plenty of water and soap.; Remove contaminated clothing;
Following eye contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.;
Following ingestion: Do NOT induce vomiting.; Give nothing to eat or drink.; If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.;
Self-protection of the first aider:

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: No known symptoms to date.;
Effects:

4.3 **Indication of any immediate medical attention and special treatment needed**

Notes for the doctor:

**Section 5 : Firefighting measures**

5.1 **Extinguishing media:**
Suitable extinguishing media: This product is not flammable. Use extinguishing agent suitable for type of surrounding fire;

5.2 **Special hazards arising from the substance or mixture**
Hazardous combustion products: /

5.3 **Advice for fire-fighters**
Wear Protective clothing. ;
Additional information:

**Section 6 : Accidental release measures**

6.1 **Personal precautions, protective equipment and emergency procedures**
Emergency procedures: Provide adequate ventilation. ; Emergency procedures: Remove persons to safety. ; Personal precautions: Use personal protection equipment (see section 8). ;

6.2 **Environmental precautions**
Do not allow to enter into surface water or drains. ; Ensure waste is collected and contained. ;

6.3 **Methods and material for containment and cleaning up**
For cleaning up: Suitable material for taking up: Absorbing material, organic ;
Other information:

6.4 **Reference to other sections**
Additional information:

**Section 7 : Handling and storage**

7.1 **Precautions for safe handling**
Protective measures:
Advice on safe handling: Avoid contact with skin, eyes and clothes. ; Avoid: Eye contact ; Avoid: Generation/formation of aerosols ; Avoid: Skin contact ; Avoid: inhalation ; In the immediate working surroundings there must be: Emergency shower installed ; In the immediate working surroundings there must be: Provide eye shower and label its location conspicuously ;
Wash contaminated clothing immediately. ; Wash hands before breaks and after work. ;
Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ; Do not pipet by mouth ; Wear suitable one-way gloves at work ;
Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice; Observe technical data sheet; Remove contaminated, saturated clothing; Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels: Keep container tightly closed; Keep-store only in original container or in properly labeled containers;
Hints on storage assembly:
Materials to avoid:
Further information on storage conditions:

7.3 Specific end uses:
Recommendations on specific end uses:

Section 8: Exposure controls/personal protection

8.1 Control parameters
Preliminary remark:

8.1.1 Occupational exposure limits:
  • OSHA (USA)

8.1.2 DNEL/PNEC-values:
  • DNEL worker
  
  • DNEL consumer
  
  • PNEC

8.2 Exposure controls
8.2.1 Appropriate engineering controls:
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See section 7
8.2.2 Personal protective equipment:
Eye / Face protection: Safety glasses with side-shields;
Skin protection: Gloves; Laboratory coats;
Respiratory protection: Ensure adequate ventilation;
Thermal hazards:
8.2.3 Environmental exposure controls:
Consumer exposure control
  Measures related to consumer uses of the substance (as such or in mixtures):
Safety Data Sheet
according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

Designation / Trade name: TWEEN-1-3-EL-1FLA TWEEN-1-3
Version: US, Page 5 of 10, Revision date: 05/12/2018

Measures related to the service life of the substance in articles:

### Section 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Concentration (mol/L)</th>
<th>Method</th>
<th>Temperature (°C)</th>
<th>Pressure (kPa)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>pH</strong></td>
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<tr>
<td>Melting point [°C]</td>
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<tr>
<td>Freezing point [°C]</td>
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<tr>
<td>Initial boiling point</td>
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<tr>
<td>Boiling range [°C]</td>
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<tr>
<td>Flash point [°C]</td>
<td></td>
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<tr>
<td>Evaporation rate [kg/m²/h]</td>
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<tr>
<td>Flammability (type : )</td>
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<td>Upper/lower</td>
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<tr>
<td>Flammability or explosive limits</td>
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<tr>
<td>Upper explosive limit</td>
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<td>Lower explosive limit</td>
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<tr>
<td>Vapour pressure [kPa]</td>
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<tr>
<td>Vapour density [g/cm³]</td>
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<tr>
<td>Densities</td>
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<tr>
<td>Density [g/cm³]</td>
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<tr>
<td>Relative density [g/cm³]</td>
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<td>Bulk density [g/cm³]</td>
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<td>Critical density [g/cm³]</td>
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<td>Solubility (Type : )</td>
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<td>Partition coefficient (log Pow)</td>
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<td>n-octanol/water at pH</td>
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<tr>
<td>Auto-ignition temperature [°C]</td>
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<tr>
<td>Decomposition temperature [°C]</td>
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<tr>
<td>Decomposition energy : kJ</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Viscosity, dynamic (poiseuille)</td>
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<tr>
<td>Viscosity, cinematic (cm²/s)</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidising properties</td>
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</tbody>
</table>

#### 9.2 Other information:

No other relevant data available

### Section 10: Stability and reactivity

#### 10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

#### 10.2 Chemical stability

#### 10.3 Possibility of hazardous reactions
10.4 **Conditions to avoid:**

10.5 **Incompatible materials:**

10.6 **Hazardous decomposition products:**
Does not decompose when used for intended uses. ; Thermal decomposition can lead to the escape of irritating gases and vapors. ;

**Section 11 : Toxicological information**
Toxicokinetics, metabolism and distribution

11.1 **Information on toxicological effects**

**Substances**

- **Acute toxicity**

**Animal data:**
Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:
Assessment / Classification:
General Remark:

- **Skin corrosion/irritation**

**Animal data:**

In-vitro skin test method:
In-vitro skin test result:
Assessment / Classification:

- **Eye damage/irritation**

**Animal data:**

In vitro eye test method:
In vitro eye test result:
Assessment / Classification:

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:
Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

Overall assessment on CMR properties:

- Specific target organ toxicity (single exposure)
  - STOT SE 1 and 2

Animal data:

Other information:

  - STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- Specific target organ toxicity (repeated exposure)

Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- Aspiration hazard

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

11.1.1 Mixtures

No toxicological information is available for the mixture itself
Section 12: Ecological information

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method); in this case the toxicological data of the ingredients are shown.

12.1 Aquatic toxicity:
- Acute (short-term) fish toxicity
- Chronic (long-term) fish toxicity
- Acute (short-term) toxicity to crustacea
- Chronic (long-term) toxicity to crustacea
- Acute (short-term) toxicity to algae and cyanobacteria
- Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

12.2 Persistence and degradability
- Biodegradation:
- Abiotic Degradation:

Assessment / Classification:

12.3 Bioaccumulative potential
- Bioconcentration factor (BCF):

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects:

Additional ecotoxicological information:

Section 13: Disposal considerations

13.1 Waste treatment methods
- Waste treatment options:
  Dispose of waste according to applicable legislation;

Other disposal recommendations:
- Additional information:
# Safety Data Sheet

according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g))

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## Section 14 : Transport information

<table>
<thead>
<tr>
<th>ADR/RID/AND/IMDG/IATA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
<td></td>
</tr>
<tr>
<td>UN Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td></td>
</tr>
<tr>
<td>Hazard label(s)</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td></td>
</tr>
</tbody>
</table>

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

### Land transport (ADR/RID)

- **Classification code ADR**: Special Provisions for ADR/RID:
- **Limited quantities for ADR/RID**: Excepted Quantities for ADR/RID:
- **Packing Instructions for ADR/RID**: Special packing provisions for ADR/RID:
- **Special packing provisions for ADR/RID**: Mixed packing provisions:
- **Portable tanks and bulk containers Special Provisions**: Portable tanks and bulk containers Instructions:
- **ADR Tank Code**: ADR Tank special provisions:
- **Vehicle for tank carriage**: Special provisions for carriage Packages:
- **Special provisions for carriage Bulk**: Special provisions for carriage loading, unloading and handling:
- **Special Provisions for carriage Operation**: Transport category (Tunnel restriction code):

### Sea transport (IMDG)

- **Marine Pollutant**: Subsidiary risk(s) for IMDG:
- **Packing instructions for IMDG**: Limited quantities for IMDG:
- **Packing instructions for IMDG**: IBC Instructions:
- **IBC Provisions**: IMO tank instructions:
- **UN tank instructions**: Tanks and bulk Provisions:
- **EmS** : Stowage and segregation for IMDG:
- **Properties and observations**:  

### Inland waterway transport (ADN)

- **Classification Code ADN**: Special Provisions ADN:
- **Limited quantities ADN**: Excepted quantities ADN:
- **Carriage permitted**: Equipment required:
- **Provisions concerning loading and unloading**: Number of blue cones/lights:
- **Provisions concerning carriage**:  
- **Remark**:  

### Air transport (ICAO-TI / IATA-DGR)

- **Subsidiary risk for IATA**: Excepted quantity for IATA:
- **Passenger and Cargo Aircraft Limited Quantities Packing Instructions**:  
- **Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity** :  
- **Passenger and Cargo Aircraft Packaging Instructions** :  
- **Passenger and Cargo Aircraft Maximal Net Quantity** :  
- **Cargo Aircraft only Packaging Instructions** :  
- **Cargo Aircraft only Maximal Net Quantity** :  
- **ERG code** : Special Provisions for IATA:
Section 15: Regulatory information

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

15.2 Chemical Safety Assessment:
For the following substances of this mixture a chemical safety assessment has been carried out:

Section 16: Other information

16.1 Indication of changes
Date of the previous version: 08/11/2018
Modifications:

16.2 Abbreviations and acronyms:

16.3 Key literature references and sources for data

16.4 Classification for mixtures and used evaluation method according to Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)):
See SECTION 2.1 (classification).

16.5 Relevant R-, H- and EUH-phrases (number and full text):