1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

<table>
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<th>Packaging</th>
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</tbody>
</table>

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

Recommended use: Laboratory reagent
Use advised against: 

1.3. Company identification

Manufacturer: Cryopep
83 rue Yves Montand, 34080 Montpellier, France
Tel: 0033 4 67 10 71 20
Fax: 0033 4 67 10 71 21
Email: contact@cryopep.com

1.4. Emergency phone

NVIC (NL): Tél.: 030 274 88 88
ANTIGIFCENTRUM (B): Tél.: 070 245 245

2. HAZARDS IDENTIFICATION

2.1. Product classification

2.1.1. CLP classification – Regulation (EC) n° 1272/2008
Non-hazardous

2.1.2. Classification according to directive 67/548/CE
Non-hazardous

2.1.3. Classification according to directive 1999/45/CE
Phase R: None
2.2. **Labelling elements**

Hazard statements : None
Safety advice : None

2.3. **Other hazards**

Major hazards : None
Potential health effects :

3. **COMPOSITION / INFORMATION ON INGREDIENTS**

3.1. **Product description**
Chromogenic peptide labelled with para-nitroaniline (pNA)

3.2. **Hazardous components**

<table>
<thead>
<tr>
<th>N°CAS</th>
<th>Nom</th>
<th>Concentration</th>
<th>Symbole</th>
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<tr>
<td>100-01-6</td>
<td>Para-nitroaniline (pNA)</td>
<td>0.040 mmole</td>
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</table>

4. **FIRST AID MEASURES**

4.1. **Description of first aid measures**

**Inhalation**:
Remove individual to fresh air. Obtain medical attention if breathing becomes difficult.

**Skin contact**:
Promptly wash exposed areas thoroughly with water. Remove all contaminated clothing. Seek medical attention if rash develops.

**Eye contact**:
Flush eyes and under the eyelids with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

**Ingestion**:
Rinse mouth with plenty of water if the person is conscious. Drink water and vomit if possible. Seek medical attention.

5. **FIRE FIGHTING MEASURES**

5.1. **Suitable extinguishing media**

Suitable extinguishing media : Any extinguishing media suitable for the surrounding fire

Unsuitable extinguishing media : No data available

5.2. **Special hazards arising from the product**

None

5.3. **Fire fighting instructions**
Wear self-contained breathing apparatus and protective clothing that is appropriate for fighting a fire involving chemicals.

6. **ACCIDENTAL RELEASE MEASURES**

6.1. **Personal precautions, protective equipment and emergency procedures**
Wear a lab-coat, disposable gloves and safety glasses.
Remove all contaminated clothing promptly.
Do not inhale steam or aerosol.

6.2. **Environment precautions**
Do not discharge into the environment.
Do not allow to enter sewers / surface or ground water.
6.3. **Methods and material for containment and cleaning up**
Ensure adequate ventilation. Sweep or vacuum dispersed product to containers adapted to his evaluation. Dispose of in accordance with local regulations.

6.4. **Reference to other sections**
See sections 8 (Exposure Control / Personal Protection, page 3) and section 13 (Disposal Considerations, page 6).

7. **HANDLING AND STORAGE**

7.1. **Precautions for safe handling**
Keep closed vials out of his use. Use in a ventilated area. Wear personal protective equipment (lab-coat, disposable gloves and safety glasses). Avoid contact with eyes and skin. Do not inhale. Wash hands after handling. Remove lab coats before entering eating areas.

7.2. **Conditions for safe storage, including any incompatibilities**
Keep the product in adapted vial to avoid accidental leak or staggering. Keep in closed vials at +2/+8°C.

7.3. **Specific End Uses**
For use in labs.

8. **EXPOSURE CONTROL / PERSONAL PROTECTION**

8.1. **Exposure parameters**

8.1.1. **Exposure limit**
Product as shipped do not contain hazardous materials of which occupational exposure limits have not been made by the local specific regulatory organization.

8.1.2. **Valeurs limites biologiques**
Product as shipped do not contain hazardous materials of which biological limit values have not been made by the local specific regulatory organization.

8.1.3. **Monitoring method**
No data available

8.1.4. **Derived no-effect level (DNEL)**
No data available

8.1.5. **Predicted no-effect concentration (PNEC)**
No data available

8.2. **Exposure controls**

8.2.1. **Technical measures**
Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
8.2.2. Individual protection measures, such as personal protective equipment.

**Eye / face protection**
- Chemical safety glasses (European standard EN 166)

**Hand protection**
- Protective gloves (European standard EN 374)
  - Inspect gloves before use.
  - Respect permeability and penetration time instructions through gloves defined by the manufacturer.
  - Use gloves appropriate for work or task being performed (chemical compatibility, dexterity, experimental conditions, ...).
  - Take account of regional and local conditions of use.
  - Be careful when remove gloves to avoid self-contamination.

**Skin and body protection**
- Wear suitable protective clothing and gloves to prevent skin exposure.

8.2.3. Health safety
Manipulate in accordance with good laboratory hygiene

8.2.4. Environmental exposure controls
No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- **Appearance**: White to primrose yellow lyophilized powder
  - Colorless liquid (buffers)
- **Odor**: Odourless
- **Odor threshold**: Not relevant
- **pH** (entre 20 et 25°C): 1.0 – 4.5
- **Melting point**: Not determined
- **Boiling point**: Not determined
- **Boiling ranges**: Not determined
- **Flash point**: Not determined
- **Evaporation rate**: < 2 % in water
- **Flammability** (solid, gaz): None
- **Explosion limit**: None
- **Vapor pressure**: Not determined
- **Vapor density**: Not determined
- **Specific gravity**: Not determined
- **Solubility**: Miscible in water
- **Partition coefficient**: n-octanol/water : Not déterminated
- **Self ignition**: Not determined
- **Decomposition temperature**: Not déterminated
- **Viscosity**: Not determined
- **Explosive properties**: Not determined
- **Oxidising properties**: Not determined

9.2. Other information
None

10. STABILITY AND REACTIVITY

10.1. Reactivity
None known
10.2. **Chemical stability**
Stable under recommended conditions (hygroscopic and photosensitive product)

10.3. **Possibility of hazardous reactions**
- **Hazardous polymerization**: None
- **Hazardous reactions**: Thermic reaction : formation of carbon oxides and nitrogen

10.4. **Conditions to avoid**
- Heat

10.5. **Incompatible materials**
- Strong oxidizers, strong acids, strong bases

11. **Toxicological Information**

11.1. **Information on toxicological effects**

11.1.1. **Acute toxicity**
- No data available

11.1.2. **Skin corrosion / irritation**
- No data available

11.1.3. **Serious eye damage**
- Allergic reactions

11.1.4. **Respiratory sensibilisation**
- Allergic reactions, headache, respiratory problems, nausea, vomiting, weakness, cyanosis, coma

11.1.5. **Skin sensibilisation**
- Allergic reactions

11.1.6. **Germ cell mutagenicity**
- **pNA**: LD_{50} (rat, oral) : 750 mg/kg \(^1\) - TLV-TWA : 3.0 mg/m³ \(^2\)
- **Peptid**: pNA is chemically bound to peptide but he is cleaving by proteolytic enzymes like trypsin during digestion ; LD_{50} (rat, inv.) : approx. 100 mg/kg

11.1.7. **Carcinogenicity**
- No data available

11.1.8. **Reproductive toxicity**
- No data available

11.1.9. **Specific target organ toxicity (single exposure)**
- No data available

11.1.10. **Specific target organ toxicity (repeated exposure)**
- No data available

11.1.11. **Aspiration hazard**
- No data available

11.1.12. **Other adverse effects**
The health effects mentioned above are based on the extrapolation concerning the pure substances. No health effect has been identified in normal use, ie in a mixture of these compounds. However these effects have not been fully investigated.

11.1.13. **Symptoms and effects, both acute and delayed**
- No data available

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\(^1\) LD_{50} : Lethal dose inducted 50 % of dead in a test population
\(^2\) TLV-TWA : Threshold Limit Value – Time Weighted Average
12. **ECOLOGICAL INFORMATION**

12.1. **Toxicity**
No data available

12.2. **Persistence and degradability**
Fully degradable

12.3. **Bioaccumulative potential**
None known

12.4. **Mobility in soil**
No data available

12.5. **Results of PBT and vPvB assessment**
No data available

12.6. **Other adverse effects**
\[ pNA : \text{Slightly toxic} - LC_{50} \text{ (Daphnia magna)} : 20-30 \text{ ppm / 48h} \]

13. **DISPOSAL CONSIDERATIONS**

13.1. **Waste treatment methods**
The product must be disposed of as laboratory chemical in suitable containers and in accordance with local regulations.

13.2. **Waste from residues / unused products**
The product must be disposed of as laboratory chemical in suitable containers and in accordance with local regulations.

13.3. **Contaminated packaging**
Packaging should be disposed in suitable containers in accordance with local regulations.

14. **TRANSPORT INFORMATION (INTERNATIONAL REGULATIONS)**

14.1. **Sea transport (IMDG / IMO)**
Not relevent

14.2. **Land transport (ADR)**
Not relevent

14.3. **Air transport (IATA)**
Not relevent

15. **REGULATORY INFORMATION**

| Symbols : | None |
| Risk Phrases R : | None |
| Risk phrases S : | S 20/21 : When using do not eat, drink or smoke |
| | S 24/25 : Avoid contact with skin and eyes |
| | S 29/56 : Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point |
| | S 36/37/39 : Wear suitable protective clothing, gloves and eye/face protection |
| | S 64 : If swallowed, rinse mouth with water (only if the person is conscious) |

\[ LC_{50} : \text{Lethal concentration inducted 50% of dead in a test population} \]
Other regulatory requirements: This document does not in any way excuse the user from knowing and applying all national and international regulations of its activity.

16. OTHER INFORMATION

This document complements the technical sheets but does not replace it. The information contained herein is based on the state of our knowledge of the product, at the date indicated. They are given in good faith. In addition, we draw the attention of the user to the possible risks incurred when a product is used for purposes other than those for which it is designed. The user must accept the sole responsibility in the matter and take the necessary precautions when using this product.

17. REVISION

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| 2014/07    | 28/07/2014 | Revising the presentation
Introduction of new graphic of the company
Adding details in the whole text |
| 2016/02    | 29/02/2016 | Adding a product: 61039502
Add S risk phases |
| 2016/11    | 04/11/2016 | Adding a product: 61039117                                          |
| 2017/02    | 02/02/2017 | Adding products: 61038703, 61038731                                  |