SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

| Article No (user) | For research or laboratory use only. Not to be administered to humans or used for medical diagnostics. |

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

Relevant identified uses: For research or laboratory use only. Not to be administered to humans or used for medical diagnostics.

1.3. Details of the supplier of the safety data sheet

| Supplier | Name: Anaspec Inc. |
| | Street: Campus drive 34801 |
| | Postal code/City: 94555 Fremont |
| | Country: United States of America |
| | Telephone: +1 510-791-9560 |
| | Telefax: +1 510-791-9572 |
| | Website: www.anaspec.com |
| | E-mail: service@anaspec.com |

| Supplier | Name: Kaneka Eurogentec S.A. |
| | Street: Rue Bois Saint-Jean, 5 |
| | Postal code/City: 4102 Seraing |
| | Country: Belgium |
| | Telephone: 0032 (0) 4 372 74 00 |
| | Telefax: +0032 (0) 4 372 75 00 |
| | Website: www.eurogentec.com |
| | E-mail: SDS@eurogentec.com |

1.4. Emergency Telephone Number

European Union: Contact your local poison center. See section 16.7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is not classified as dangerous.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

| Hazard pictograms | - |
| Signal word | - |
| Product identifiers | - |
| Hazard Statements | - |
| Supplemental Hazard information (EU) | - |
| Precautionary Statements - General | - |
Precautionary Statements - Prevention -
Precautionary Statements - Response -
Precautionary Statements - Storage -
Precautionary Statements - Disposal -

2.3. Other hazards
Not available

SECTION 3: Composition/information on ingredients

3.1. Substances
This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Regulation (EC) No. 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

3.2. Mixtures
The mixture does not contain any substances classified as Substances of Very High Concern (SVHC) by the European Chemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table.

3.3. Remark
Not available

SECTION 4: First aid measures

4.1. Description of first aid measures
General information: When in doubt or if symptoms are observed, get medical advice.
Following inhalation: No special measures are necessary. Provide fresh air.
Following skin contact: Wash with soap and water.
Following eye contact: In case of eye irritation consult an ophthalmologist. Rinse immediately carefully and thoroughly with eye-bath or water.
Following ingestion: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Self-protection of the first aider: No special measures are necessary.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media
Unsuitable extinguishing media: Strong water jet.

5.2. Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

5.3. Advice for firefighters
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information
Do not inhale vapors and fumes. Co-ordinate fire-fighting measures to the fire surroundings. Move undamaged containers from immediate hazard area if it can be done safely. Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen. Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
No special measures are necessary.
6.2. Environmental precautions
Ensure that waste is collected and contained. No special environmental measures are necessary.

6.3. Methods and material for containment and cleaning up
Treat the recovered material as prescribed in the section on waste disposal. Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

6.5. Additional information
Not available

SECTION 7: Handling and Storage

7.1. Precautions for safe handling
PROTECTIVE MEASURES
No special measures are necessary.

Advises on general occupational hygiene
Wash hands before breaks and after work. Remove contaminated, saturated clothing.

7.2. Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry, cool, and well-ventilated place. Keep container in upright position in order to prevent leakage.

Requirements for storage rooms and vessels
Store at -20°C

7.3. Specific end uses
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Does not contain substances above concentration limits fixing an occupational exposure limit.
Not available

8.2. Exposure controls
Appropriate engineering controls
See section 7. No additional measures necessary.

Personal protection equipment

Eye/face protection: Suitable eye protection: Dust protection eye glasses
Skin protection: Hand protection: Disposable gloves
Body protection: Chemical protection clothing
Respiratory protection: Suitable respiratory protection apparatus: No data available

Environmental exposure controls
No special measures are necessary.

8.3. Additional information
Not available

SECTION 9: Physical and chemical Properties

9.1. Information on basic physical and chemical properties
Physical state: Solid
Colour: Not available
Odour: Not available
Odour threshold: Not available
<table>
<thead>
<tr>
<th>Property</th>
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</thead>
<tbody>
<tr>
<td>pH</td>
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</tr>
<tr>
<td>Melting point/freezing point</td>
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</tr>
<tr>
<td>Initial boiling point and boiling range</td>
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</tr>
<tr>
<td>Flash point</td>
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<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
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</tr>
<tr>
<td>Vapour pressure</td>
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<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
<td>Not available</td>
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<tr>
<td>Solubility(ies)</td>
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<td>Partition coefficient: n-octanol/water (Log KOC)</td>
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<tr>
<td>Auto-ignition temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
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<tr>
<td>Viscosity</td>
<td>Not available</td>
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<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidising properties</td>
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</tr>
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</table>

### 9.2. Other safety information
Not available

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity
No data available.

#### 10.2. Chemical stability
Not available

#### 10.3. Possibility of hazardous reactions
Not available

#### 10.4. Conditions to avoid
No data available.

#### 10.5. Incompatible materials
No data available.

#### 10.6. Hazardous decomposition products
Not available

#### 10.7. Additional information
Not available

### SECTION 11: Toxicological information

#### 11.1. Acute oral toxicity
Data for mixture
Not available

#### 11.2. Acute skin toxicity
Data for mixture
Not available

#### 11.3. Acute inhalation toxicity
Data for mixture
Not available
11.4. Skin corrosion
Data for mixture
Not available
Substances
Not available

11.5. Eye damage
Data for mixture
Not available
Substances
Not available

11.6. Skin sensitisation
Data for mixture
Not available
Substances
Not available

11.7. STOT RE
Data for mixture
Not available
Substances
Not available

11.8. STOT SE
Data for mixture
Not available
Substances
Not available

11.9. STOT RE
Data for mixture
Not available
Substances
Not available

11.10. Carcinogenicity
Data for mixture
Not available
Substances
Not available

11.11. Reproductive and Developmental Toxicity
Data for mixture
Not available
Substances
Not available

11.12. Genotoxicity
Data for mixture
Not available
Substances
Not available

11.13. In vitro genotoxicity
Data for mixture
Not available
Substances
Not available
11.14. Respiratory sensitisation

Data for mixture
Not available
Substances
Not available

Additional information
Not available

SECTION 12: Ecological information

12.1. Toxicity
Based on available data, the classification criteria are not met.

12.2. Persistence and degradability
The product has not been tested.

12.3. Bioaccumulative potential
The product has not been tested.

12.4. Mobility in soil
The product has not been tested.

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

12.6. Other adverse effects
No data available.

12.7. Additional ecotoxicological information
Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
Dispose of waste according to applicable legislation.
Non-contaminated packages must be recycled or disposed of.
Contaminated packing must be completely emptied and can be reused after proper cleaning.
Packing which cannot be properly cleaned must be disposed of.
Dispose of waste according to applicable legislation.
For recycling, contact manufacturer.

13.2. Additional information
Not available

SECTION 14: Transport information

14.1. UN number
The product is not hazardous according to the applicable transport regulations (ADR/RID/ADN/IMDG/ICAO/IATA).

14.2. UN proper shipping name
Not regulated.

14.3. Transport hazard class(es)
Not regulated.

14.4. Packing group
Not regulated.

14.5. Environmental hazards
Not regulated.
14.6. Special precautions for user
Not regulated.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not regulated.

14.8. Additional information
Not available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
This SDS has been established in accordance with REACH regulation, including its amendments: REACH Regulation (EC) No 1907/2006. This SDS has been established in accordance with CLP regulation, including its amendments: CLP Regulation EC No. 1272/2008.

Not available

15.2. Chemical Safety Assessment
For this substance/mixture a chemical safety assessment is not required. For this substance/mixture a chemical safety assessment has been elaborated. For this mixture, the relevant data of the Substances' Chemical safety assessment are integrated in the sections of the SDS.

15.3. Additional information
Not available

SECTION 16: Other information

Creation date: 05/09/2019
Version date: 05/09/2019
Printing date: 05/09/2019

16.1. Indication of changes
Not applicable (first edition of the MSDS).

16.2. Abbreviations and acronyms

16.3. Key literature references and sources for data
No data available.

16.4. Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]
Classification of the mixture is in accordance with the evaluation method described in Regulation (EC) No 1272/2008.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)
Not available

16.6. Training advice
Not available

16.7. Additional information
Emergency phone number:
<table>
<thead>
<tr>
<th>Country</th>
<th>Contact Information</th>
<th>Country</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>16 662, +372 7943 794</td>
<td>Poland</td>
<td>112</td>
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<tr>
<td>Finland</td>
<td>09 471 977, +33 (0)1 45 42 59 59</td>
<td>Portugal</td>
<td>8082 501 43</td>
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<tr>
<td>France</td>
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<td>112, 112, +49 97 93 77 777</td>
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<td>Greece</td>
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<td>Switzerland</td>
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<tr>
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<tr>
<td>Ireland</td>
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<tr>
<td>Italy</td>
<td>+35 (0)2 6610 1029</td>
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</tr>
</tbody>
</table>

The information given in this Safety Data Sheet is based on our present knowledge and on European and national regulations. This Safety Data Sheet describes safety requirements relative to identified uses, it doesn't guarantee all the product properties particularly in the case of non identified uses. The product mustn't be used for any uses other than those identified under heading 1. Since the user's working conditions are not known by us, it is the responsibility of the user to take all necessary measures to comply with legal requirements for specific uses and avoid negative health effects.