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

1.1 Product identifier
   Trade name: Actero™ Listeria Enrichment Media
   Alternative name(s): ACTERO™ Listeria 2KG Dehydrated Media (FCM-022)
   Product code(s): MED2018

1.2 Relevant identified uses of the substance or mixture and uses advised against
   Relevant identified uses: Laboratory and analytical use

1.3 Details of the supplier of the safety data sheet
   Qualicon Diagnostics LLC
   941 Avenida Acaso
   Camarillo CA 93012
   United States
   Telephone: 1-302-695-5300
   Telefax: 1-302-351-6454
   e-mail: diagnostics.support@hygiena.com
   Website: https://www.hygiena.com
   e-mail (competent person): diagnostics.support@hygiena.com

1.4 Emergency telephone number
   Emergency information service: 1-302-695-5300
   This number is only available during the following office hours: Mon-Fri 08:00 AM - 05:00 PM

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   Classification acc. to GHS
   This mixture does not meet the criteria for classification.

2.2 Label elements
   Labelling
   - Signal word: not required
   - Pictograms: not required
   - Supplemental hazard information: EUH210 Safety data sheet available on request.

2.3 Other hazards
   of no significance
SECTION 3: Composition/information on ingredients

3.1 Substances
Not relevant (mixture)

3.2 Mixtures
Description of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>Identifier</th>
<th>Wt%</th>
<th>Classification acc. to GHS</th>
<th>Pictograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chloride</td>
<td>CAS No 7447-41-8</td>
<td>10 – &lt; 25</td>
<td>Acute Tox. 4 / H302</td>
<td>![Pictogram]</td>
</tr>
<tr>
<td></td>
<td>EC No 231-212-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-morpholinopropanesulfonic acid</td>
<td>CAS No 1132-61-2</td>
<td>10 – &lt; 25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC No 214-478-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of substance | Specific Conc. Limits | M-Factors | ATE | Exposure route |
------------------|-----------------------|-----------|-----|----------------|
Lithium chloride  | -                     | -         | 526 mg/kg | oral |

For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes
Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation
If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact
Brush off loose particles from skin. Rinse skin with water/shower.

Following eye contact
Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion
Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed
none
SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
- Water, Foam, ABC-powder

Unsuitable extinguishing media
- Water jet

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products
- Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
- Remove persons to safety.

For emergency responders
- Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

- Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill
- Covering of drains, Take up mechanically

Advice on how to clean up a spill
- Take up mechanically.

Other information relating to spills and releases
- Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

- Hazardous combustion products: see section 5.
- Personal protective equipment: see section 8.
- Incompatible materials: see section 10.
- Disposal considerations: see section 13.
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation
  Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details
  Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres
  Removal of dust deposits.

- Ventilation requirements
  Use local and general ventilation.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of agent</th>
<th>CAS No</th>
<th>Identifier</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Ceiling-C [ppm]</th>
<th>Ceiling-C [mg/m³]</th>
<th>Notation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB</td>
<td>dust</td>
<td>WEL</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>i</td>
<td>EH40/2005</td>
</tr>
<tr>
<td>GB</td>
<td>dust</td>
<td>WEL</td>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>r</td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

Notation

- Ceiling-C: ceiling value is a limit value above which exposure should not occur
- i: inhalable fraction
- r: respirable fraction
- STEL: short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
- TWA: time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)
Relevant DNELs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>DNEL</td>
<td>10 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>DNEL</td>
<td>30 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>acute - systemic effects</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>DNEL</td>
<td>73.2 mg/kg bw/day</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>

Relevant PNECs of components of the mixture

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Organism</th>
<th>Environmental compartment</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>10.4 mg/l</td>
<td>aquatic organisms</td>
<td>freshwater</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>1.04 mg/l</td>
<td>aquatic organisms</td>
<td>marine water</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>140.2 mg/l</td>
<td>aquatic organisms</td>
<td>sewage treatment plant (STP)</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>49.9 mg/kg</td>
<td>aquatic organisms</td>
<td>freshwater sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>4.99 mg/kg</td>
<td>aquatic organisms</td>
<td>marine sediment</td>
<td>short-term (single instance)</td>
</tr>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>PNEC</td>
<td>4.13 mg/kg</td>
<td>terrestrial organisms</td>
<td>soil</td>
<td>short-term (single instance)</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

- Wear eye/face protection.

Skin protection

- Hand protection
  - Wear protective gloves.

- Other protection measures
  - Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

- Particulate filter device (EN 143).
Environmental exposure controls
Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

**SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>solid</td>
</tr>
<tr>
<td>Colour</td>
<td>not determined</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>not determined</td>
</tr>
<tr>
<td>Boiling point or initial boiling point and boiling range</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>this material is combustible, but will not ignite readily</td>
</tr>
<tr>
<td>Lower and upper explosion limit</td>
<td>not determined</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;400 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>not relevant</td>
</tr>
<tr>
<td>pH (value)</td>
<td>not applicable</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>not relevant</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>not determined</td>
</tr>
</tbody>
</table>

**Partition coefficient**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient n-octanol/water (log value)</td>
<td>this information is not available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>0 Pa at 25 °C</td>
</tr>
</tbody>
</table>

Density and/or relative density
Density
not determined

Relative vapour density
information on this property is not available

Particle characteristics
no data available

9.2 Other information

Information with regard to physical hazard classes
hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics

Solvent content
0 %

Solid content
48 %

SECTION 10: Stability and reactivity

10.1 Reactivity
Concerning incompatibility: see below “Conditions to avoid” and “Incompatible materials”.

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions
No known hazardous reactions.

10.4 Conditions to avoid
There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion
The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials
Oxidisers

10.6 Hazardous decomposition products
Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure
The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS
This mixture does not meet the criteria for classification.

Acute toxicity
Shall not be classified as acutely toxic.

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Exposure route</th>
<th>ATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chloride</td>
<td>7447-41-8</td>
<td>oral</td>
<td>526 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity
Shall not be classified as germ cell mutagenic.

Carcinogenicity
Shall not be classified as carcinogenic.

Reproductive toxicity
Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure
Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure
Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard
Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.
SECTION 12: Ecological information

12.1 Toxicity
Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability
Data are not available.

12.3 Bioaccumulative potential
Data are not available.

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Endocrine disrupting properties
None of the ingredients are listed.

12.7 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings
Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks
Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number
not subject to transport regulations

14.2 UN proper shipping name
not relevant

14.3 Transport hazard class(es)
none

14.4 Packing group
not assigned

14.5 Environmental hazards
non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Special precautions for user
There is no additional information.

14.7 Maritime transport in bulk according to IMO instruments
The cargo is not intended to be carried in bulk.
Information for each of the UN Model Regulations

International Maritime Dangerous Goods Code (IMDG) - Additional information
Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information
Not subject to ICAO-IATA.

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Deco-Paint Directive

| VOC content | 0 % |

Industrial Emissions Directive (IED)

| VOC content | 0 % |

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)
none of the ingredients are listed

Water Framework Directive (WFD)

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Listed in</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium chloride</td>
<td></td>
<td>a)</td>
<td></td>
</tr>
</tbody>
</table>

Legend
A) Indicative list of the main pollutants

Regulation on persistent organic pollutants (POP)
None of the ingredients are listed.

National regulations (GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list
none of the ingredients are listed

Restrictions according to GB REACH, Annex 17
none of the ingredients are listed
15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>ATE</td>
<td>Acute Toxicity Estimate</td>
</tr>
</tbody>
</table>
### Descriptions of used abbreviations

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>Ceiling-C</td>
<td>Ceiling value</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EC No</td>
<td>The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>GB REACH</td>
<td>The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)</td>
</tr>
<tr>
<td>STEL</td>
<td>Short-term exposure limit</td>
</tr>
<tr>
<td>TWA</td>
<td>Time-weighted average</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds</td>
</tr>
<tr>
<td>vPvB</td>
<td>Very Persistent and very Bioaccumulative</td>
</tr>
<tr>
<td>WEL</td>
<td>Workplace exposure limit</td>
</tr>
</tbody>
</table>

### Key literature references and sources for data

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
</tbody>
</table>

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.