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

1.1 Product identifier

Trade name
Lactate standard solution 35 mmol/L, CONCENTRATE, not ready for use, bottle 50 mL

Order No. (Epp.-No.)
0201-0001-063

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

Relevant identified uses of the substance or mixture
The standard solution is a special design at customer’s option. Lactate standard solution 35 mmol/L is an undiluted standard.

1.3 Details of the supplier of the safety data sheet

Address
EKF-diagnostic GmbH
Ebendorfer Chaussee 3
D-39179 Barleben

Telephone no. +49 (0)3 92 03 / 7 85 - 0
Fax no. +49 (0)3 92 03 / 7 85 - 16

Information provided by / telephone
EKF-diagnostic GmbH
Telephone: +49 (0)39203 / 785 - 0 (7 am - 4 pm on workdays)

Advice on Safety Data Sheet
support@ekf-diagnostic.de

1.4 Emergency telephone number

+49 (0) 551 / 19240 Poison Information Centre North(Giftinformationszentrale Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification information
This product does not meet the classification and labelling criteria given in the Dangerous Preparations Directive (1999/45/EC; DPD)

2.2 Label elements

Not relevant

2.3 Other hazards

No special hazards have to be mentioned. Please observe the information given in this safety data sheet.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Chemical characterization
aqueous solution

Hazardous ingredients
This product does not contain substances to be mentioned according to EU Regulation No 1907/2006 (REACH), annex II.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation
Remove affected person from the immediate area. Ensure supply of fresh air.

After skin contact
Wash off immediately with soap and water.

After eye contact
Separate eyelids, wash the eyes thoroughly with water (15 min.).

After ingestion
Never give anything by mouth to an unconscious person. If individual is drowsy or unconscious, place in recovery position (on left side, with head down). Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed
No data available.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media
No data available.

5.2 Special hazards arising from the substance or mixture
None known

5.3 Advice for firefighters
Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation.

For emergency responders
No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up
Pick up with absorbent material (e.g., sand, sawdust, general-purpose binder). Send in suitable containers for recovery or disposal.

6.4 Reference to other sections
No data available.
SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Ensure adequate ventilation.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately. Wash hands before breaks and after work.

Advice on protection against fire and explosion
No special measures necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep container tightly closed in a cool, well-ventilated place.

Recommended storage temperature
Value: 2 - 8 °C

Requirements for storage rooms and vessels
Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original one.

Advice on storage assembly
Store the foodstuffs separately.

7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
No parameters available for monitoring.

8.2 Exposure controls

Appropriate engineering controls
No data available.

Personal protective equipment

Respiratory protection
No special measures required.

Eye / face protection
Safety glasses (EN 166)

Hand protection
Protective gloves (recommended)

Other
Standard laboratory clothing.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Form/Colour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>liquid</td>
<td></td>
</tr>
<tr>
<td>colourless</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Odour</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>odourless</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH value</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>7.1</td>
</tr>
<tr>
<td>Reference temperature</td>
<td>20 °C</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>appr. 100 °C</td>
</tr>
<tr>
<td>Reference pressure</td>
<td>1013 mbar</td>
</tr>
<tr>
<td>Melting point / melting range</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition point / decomposition range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>soluble</td>
</tr>
</tbody>
</table>

Remarks: soluble
 SECTION 10: Stability and reactivity

10.1 Reactivity
Dangerous reactions are not expecting handling the product according to its intended use.

10.2 Chemical stability
Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions
None, if handled according to order.

10.4 Conditions to avoid
None known

10.5 Incompatible materials
none, if handled according to order

10.6 Hazardous decomposition products
No hazardous decomposition products if stored and handled as prescribed.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute oral toxicity</th>
<th>No data available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Acute inhalational toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>No data available</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>No data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Reproduction toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>No data available</td>
</tr>
<tr>
<td>Delayed and immediate effects as well as chronic effects from short and long-term exposure</td>
<td>When handled appropriately adverse health effects are not to be expected.</td>
</tr>
</tbody>
</table>

Other information

The product was classified in toxicological terms on the basis of the results of the calculation procedure outlined within General Directive on Preparations (1999/45/EC).
SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Daphnia toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Algae toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Bacteria toxicity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
No data available.

12.6 Other adverse effects
No data available.

12.7 Other information

<table>
<thead>
<tr>
<th>Other information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not discharge into the drains or waters and do not store on public depositories.</td>
</tr>
</tbody>
</table>

SECTION 13: Disposal considerations

13.1 Waste treatment methods

<table>
<thead>
<tr>
<th>Waste treatment methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
</tr>
<tr>
<td>Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of in agreement with the regional waste disposal company.</td>
</tr>
</tbody>
</table>
SECTION 14: Transport information

14.1 Transport ADR/RID/ADN
The product is not subject to ADR/RID/ADN regulations.

14.2 Transport IMDG
The product is not subject to IMDG regulations.

14.3 Transport ICAO-TI / IATA
The product is not subject to ICAO-TI / IATA regulations.

14.4 Other information
No data available.

14.5 Environmental hazards
Information on environmental hazards, if relevant, pls. see 14.1 - 14.3.

14.6 Special precautions for user
No data available.

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

SECTION 15: Regulatory information

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

EU regulations
Remarks
Annex I, part 1 + 2: not mentioned. With regard to possibly appropriate decomposition products see Chapter 10.

15.2 Chemical safety assessment
No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:
National Threshold Limit Values of the corresponding countries as amended in each case.
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Department issuing safety data sheet
UMCO Umwelt Consult GmbH
Georg-Wilhelm-Str. 183, D-21107 Hamburg
Tel.: +49 40 / 79 02 36 300  Fax: +49 40 / 79 02 36 357  e-mail: umco@umco.de

This information is based on our present state of knowledge and experience. The security data sheet describes products with a view to the security requirements. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.