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

1.1 Product identifier

Trade name

Disinfectant solution, not ready to use

Order No. 0201-0003-001

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

Relevant identified uses of the substance or mixture

Cleaning of the flowing system for Glucose- and Lactate analyzers:
BIOSEN, EBIOS, ESAT, economic, SUPER GL, GL ambulance, GL easy, G, G1 and G2.

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 in accordance with Directive 67/548/EEC or 1999/45/EC
N; R50
R10
Xi; R41
Xn; R20/22
Xii; R37/38
R42/43

2.2 Label elements

Labelling according to Directive 1999/45/EC

Hazard symbols

Harmful
Dangerous for the environment

Hazardous component(s) to be indicated on label, contains:
Glutaral
R phrases
10 Flammable.
20/22 Harmful by inhalation and if swallowed.
37/38 Irritating to respiratory system and skin.
41 Risk of serious damage to eyes.
42/43 May cause sensitization by inhalation and skin contact.
50 Very toxic to aquatic organisms.

S phrases
23.6 Do not breathe vapour/spray.
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37/39 Wear suitable gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards
No data available.

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

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS / EC / Index / REACH no</th>
<th>Classification 67/548/EEC</th>
<th>Additional information</th>
<th>Concentration %-b.w.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(ethylenedioxy)dimethanol</td>
<td>3586-55-8 222-720-6</td>
<td>Xn; R22 Xi; R38 Xi; R41</td>
<td>&gt; 10.00 - &lt; 25.00 %-b.w.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>propan-2-ol</td>
<td>67-63-0 200-661-7 603-117-00-0</td>
<td>F; R11 Xi; R36 R67</td>
<td>&gt; 5.00 - &lt; 10.00 %-b.w.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Glutaral</td>
<td>111-30-8 203-856-5 605-022-00-X</td>
<td>T; R23/25 C; R34 R42/43 N; R50</td>
<td>&gt; 5.00 - &lt; 10.00 %-b.w.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>nonionic tensides - -</td>
<td>Xn; R22 Xi; R41</td>
<td>&gt; 1.00 - &lt; 5.00 %-b.w.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>nonionic tenside - -</td>
<td>Xi; R41</td>
<td>&gt; 1.00 - &lt; 5.00 %-b.w.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides</td>
<td>68391-01-5 269-919-4</td>
<td>C; R34 Xn; R22 N; R50</td>
<td>&gt; 0.50 - &lt; 1.00 %-b.w.</td>
<td></td>
</tr>
</tbody>
</table>

Full Text for all R-phrases: pls. see section 16

<table>
<thead>
<tr>
<th>No</th>
<th>Note</th>
<th>Specific concentration limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>-</td>
<td>R43: C &gt;= 0.5% R36/37/38: C &gt;= 0.5% R41: C &gt;= 2% R20: C &gt;= 2% R22: C &gt;= 2% R37/38: C &gt;= 2% R34: C &gt;= 10% R23: C &gt;= 25% R25: C &gt;= 50%</td>
</tr>
</tbody>
</table>

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General information**
In case of persisting adverse effects, consult a physician. Change contaminated, saturated clothing.

**After inhalation**
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.). Seek medical assistance.
After ingestion
Rinse out mouth and give plenty of water to drink. Call a doctor.

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
Carbon dioxide; extinguishing powder; Water spray jet

Unsuitable extinguishing media
Full water jet

5.2 Special hazards arising from the substance or mixture
When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide and smoke.

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
Provide good ventilation of working area (local exhaust ventilation, if necessary).

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

Advice on protection against fire and explosion
Keep away from sources of ignition - refrain from smoking.

7.2 Conditions for safe storage, including any incompatibilities

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

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
Do not store together with foodstuffs.

7.3 Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

<table>
<thead>
<tr>
<th>No</th>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>propan-2-ol</td>
<td>67-63-0</td>
<td>200-661-7</td>
</tr>
</tbody>
</table>

List of approved workplace exposure limits (WELs) / EH40

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS no.</th>
<th>EC no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stegno</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
No data available.

Personal protective equipment

Respiratory protection
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Eye / face protection
Tightly fitting safety glasses (EN 166).

Hand protection
Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific workstation suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer’s instructions and information relating to the use, storage, care and replacement of protective gloves.

Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Table of ideal protective equipment:

<table>
<thead>
<tr>
<th>Appropriate Material</th>
<th>Material thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>butyl rubber</td>
<td>0.7 mm</td>
</tr>
<tr>
<td>nitrile rubber</td>
<td>0.4 mm</td>
</tr>
</tbody>
</table>

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

Form/Colour
<table>
<thead>
<tr>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>blue</td>
</tr>
</tbody>
</table>
### Odour
- aldehyde-like

### Odour threshold
- No data available

### pH value
<table>
<thead>
<tr>
<th>Value</th>
<th>Reference temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>20 °C</td>
</tr>
</tbody>
</table>

### Boiling point / boiling range
<table>
<thead>
<tr>
<th>Value</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

### Melting point / melting range
- not determined

### Decomposition point / decomposition range
- No data available

### Flash point
<table>
<thead>
<tr>
<th>Value</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

### Auto-ignition temperature
- Remarks: Product is not selfigniting.

### Oxidising properties
- No data available

### Explosive properties
- No data available

### Flammability (solid, gas)
- No data available

### Lower flammability or explosive limits
- No data available

### Upper flammability or explosive limits
- No data available

### Vapour pressure
- No data available

### Vapour density
- No data available

### Evaporation rate
- No data available

### Relative density
- No data available

### Density
<table>
<thead>
<tr>
<th>Value</th>
<th>Reference temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.04 g/cm³</td>
<td>20 °C</td>
</tr>
</tbody>
</table>

### Solubility in water
- Remarks: soluble
9.2 Other information

| Other information | No data available. |

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
No data available.

10.4 Conditions to avoid
None, if handled according to order.

10.5 Incompatible materials
None known.

10.6 Hazardous decomposition products
Possibility of splitting-off of small amounts of formaldehyde
## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Data Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>No data available</td>
</tr>
<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>No data available</td>
</tr>
</tbody>
</table>

Irritating effects on the skin and mucous membrane. Possibility of sensitisation through skin contact. Sensitisation possible through inhalation. Danger of acute eye damage.

### 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

- **Fish toxicity**: No data available
- **Daphnia toxicity**: No data available
- **Algae toxicity**: No data available
- **Bacteria toxicity**: No data available

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

Do not discharge into the drains or waters and do not store on public depositories.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company. Concentrate is not allowed to be disposed together with domestic waste. Concentrate is not allowed to be released into the sewerage.

**Packaging**

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.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

- **Class**: 3
- **Classification code**: F1
- **Packing group**: III
- **Hazard identification no.**: 30
- **UN number**: UN1993
- **Technical name**: FLAMMABLE LIQUID, N.O.S.
- **Danger releasing substance**: propan-2-ol
- **Special Provision 640**: 640E
- **Tunnel restriction code**: D/E
- **Label**: 3
14.2 Transport IMDG

- **Class**: 3
- **Packing group**: III
- **UN number**: UN1993
- **Proper shipping name**: FLAMMABLE LIQUID, N.O.S.
- **Danger releasing substance**: propan-2-ol
- **EmS**: F-E+S-E
- **Label**: 3
- **Marine pollutant mark**: Symbol "fish and tree"

14.3 Transport ICAO-TI / IATA

- **Class**: 3
- **Packing group**: III
- **UN number**: UN1993
- **Proper shipping name**: Flammable liquid, n.o.s.
- **Danger releasing substance**: propan-2-ol
- **Label**: 3

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 2, category 6

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.

**Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)**

- **R11**: Highly flammable.
- **R22**: Harmful if swallowed.
- **R23/25**: Toxic by inhalation and if swallowed.
- **R34**: Causes burns.
- **R36**: Irritating to eyes.
- **R39**: Irritating to skin.
- **R67**: Vapours may cause drowsiness and dizziness.
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.