1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

- **Trade name**: DABEERSEN 284 L
- **Chemical description**: sodium glucoheptonate
- **Synonyms**: Water solution HGANa 30%
- **Product code**: 101071

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

- **Use**: Sequestrering Agent

1.3. Details of the supplier of the safety data sheet

- **Company identification**: S.A. DABEER
  P.I. Santiga. Pasaje Arrahona 18-2º, local A.
  08210 Barberà del Vallès  SPAIN
  Tel.: + 34 93 719 53 59
  Fax: + 34 93 718 56 73
  reach@dabeer.c.telefonica.net

1.4. Emergency telephone number

- **Phone nr**: +34 93 729 32 77 [ Office hours ]

2. Hazards identification

2.1. Classification of the substance or mixture

**Classification EC 67/548 or EC 1999/45**

Not classified.

**Hazard Class and Category Code Regulation EC 1272/2008 (CLP)**

Not classified.

2.2. Label elements

**Labelling EC 67/548 or EC 1999/45**

Not classified.

- **Symbol(s)**: None.
- **R Phrase(s)**: None.
- **S Phrase(s)**: None.
- **Contains**: sodium glucoheptonate

**Labelling Regulation EC 1272/2008 (CLP)**

Not classified.
2. Hazards identification (continued)

Contains: sodium glucoheptonate

2.3. Other hazards

None under normal conditions.

3. Composition/information on ingredients

Substance / Preparation: Water solution

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Contents</th>
<th>CAS No</th>
<th>EC No</th>
<th>Annex No</th>
<th>REACH Ref</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium glucoheptonate</td>
<td>29.5 - 32.5 %</td>
<td>31138-65-5</td>
<td>250-480-2</td>
<td>-----</td>
<td>-----</td>
<td>Not classified (DSD/DPD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not classified (GHS)</td>
</tr>
</tbody>
</table>

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures

4.1. Description of first aid measures

Inhalation: Assure fresh air breathing.

Skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

Eye contact: Rinse immediately with plenty of water. Seek medical attention if ill effect or irritation develops.

Ingestion: Do not induce vomiting. Seek medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

General information: If you feel unwell, seek medical advice (show the label where possible).

Symptoms relating to use: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

General information: Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

5.1. Extinguishing media


- Unsuitable extinguishing media: Do not use a heavy water stream.

Surrounding fires: Use water spray or fog for cooling exposed containers.
5. Fire-fighting measures (continued)

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products: Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

Protection against fire: Do not enter fire area without proper protective equipment, including respiratory protection.

Special procedures: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders: Equip cleanup crew with proper protection. See Heading 8.

6.2. Environmental precautions

Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods: Ventilate area. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Minimize generation of dust. Collect spills and put it into appropriated container. Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage

7.1. Precautions for safe handling

Personal protection: Wear recommended personal protective equipment.

Technical protective measures: Provide adequate ventilation to minimize dust concentrations.

Handling: Avoid contact with skin, eyes and clothing. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Take precautionary measures against static discharges during blending and transfer operations.

7.2. Conditions for safe storage, including any incompatibilities

Storage: Store above 5°C. Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

7. Handling and storage (continued)

7.3. Specific end use(s)

Specific end use(s) : None.

8. Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits : As pure substance
: Dust and/or fine particles, minimize inhalation exposure. :VLEP-INRS(FR): 10mg/m3

8.2 Exposure controls

Personal protection : Avoid all unnecessary exposure.

- Respiratory protection : Where excessive vapour may result, wear approved mask.
- Skin protection : Skin protection appropriate to the conditions of use should be provided.
- Hand protection : In case of repeated or prolonged contact wear gloves.
- Eye protection : Chemical goggles or safety glasses.
- Ingestion : When using, do not eat, drink or smoke.

9. Physical and chemical properties

9.1.1. Chemical and Physical properties of the mixture

Physical state at 20 °C : Water solution
Colour : Brown reddish
pH value : 9.5 - 10.5 (sol. aq. 1%)
Relative density : 1.17 - 1.18 g/cc (20°C)
Solubility in water : Complete.

9.1.2. Chemical and Physical properties of the substances listed in Section 3 (*)

Physical state at 20 °C : Solid Crystalline.
Colour : White.
pH value : 7 - 9 (sol. aq. 1%)
Melting point [°C] : 286 °C (MPBPWIN v.167) Decomposes above 210°C
Initial boiling point [°C] : Not applicable.
9. Physical and chemical properties (continued)

- **Flash point [°C]**: Not applicable.
- **Evaporation rate**: Not applicable.
- **Flammability (solid, gas)**: The product is not flammable.
- **Vapour pressure [20°C]**: Not applicable.
- **Vapour density**: Not applicable.
- **Bulk density**: 658 Kg/m3
- **Solubility in water**: 47g/100 cc H2O
- **Log P octanol / water at 20°C**: - 6.44 (KOWWIN v1.67 estimate)
- **Auto-ignition temperature [°C]**: > 200 °C
  (IUCLID4 sodium gluconate read-across)
- **Thermal decomposition [°C]**: > 210 °C
- **Explosion limits**: Not applicable.
- **Viscosity**: Not applicable.

9.2. Other information

- **Explosive properties**: Not explosive.
- **Oxidising properties**: Not oxidizing.

10. Stability and reactivity

10.1. Reactivity

- **Reactivity**: Not established.

10.2. Chemical stability

- **Chemical stability**: Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

- **Hazardous reactions**: Not established.

10.4. Conditions to avoid

- **Conditions to avoid**: Take precautionary measures against static discharges during blending and transfer operations. Extremely high or low temperatures. Direct sunlight.

10.5. Incompatible materials

- **Materials to avoid**: Oxidizing agent. Strong acids. Strong bases.

10.6. Hazardous decomposition products

- **Hazardous decomposition products**: May liberate toxic gases. Fumes.
11. Toxicological information

11.1. Information on toxicological effects

Toxicological properties of the substances listed in Section 3 (*)

Acute toxicity
- Inhalation : No data available.
- Dermal : No data available.
- Ingestion : Based on available data, the classification criteria are not met
  LDLo>2000 mg/kg bw
  (Sodium gluconate read-across)
  (OECD SIDS)

skin corrosion/irritation : Not irritating
  (84/449/EC))
  (IUCLID Gluconic acid; read-across)

serious eye damage/irritation : Not irritating
  (Draize test)
  (IUCLID Gluconic acid; read-across)

respiratory or skin sensitisation : No data available.

Toxic for reproduction : Based on available data, the classification criteria are not met NOAEL maternal
  toxicity >4000 mg/Kg bw;
  NOEAL teratogen>4000 mg/Kg
  (Rat Sprague-dawley);
  (Glucono-delta-lactone read-across).
  (SIDS gluconate)

germs cell mutagenicity : Mutagenicity tests are negative.
  (equivalent to OECD 471 y 473)
  (sodium gluconate read-across)

Carcinogenicity : No data available.

STOT-single exposure : Not classified.
STOT-repeated exposure : Not classified.
Aspiration hazard : Not applicable.

12. Ecological information

Ecotoxicological properties of the substances listed in Section 3 (*)

12.1. Toxicity

96 Hour-LC50 Algae : NOEC(72h)>100mg/L ;
  Desmodesmus subcapitus
  (OECD 201);
  (sodium gluconate read-across)

LC50-96 Hour - fish [mg/l] : LC0(96h) >100mg/L
  Oriziaslatipes;
  (OECD 203);
  (read-across sodium gluconate)

48 H-LC50 - Daphnia magna [ppm] : NOEC(48h)>1000mg/l
12. Ecological information (continued)

12.2. Persistence - degradability

Biodegradation: Readily biodegradable.
+/- 89% (28 days)
92/69/EEC, C,4-E
(sodium gluconate read-across)

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulative potential.
log Koc= -4.22 (KOCWIN v 2.00)

12.4. Mobility in soil

Mobility in soil: 48.9%
(Estimated with the Level III Fugacity Model program);
(sodium gluconate read-across)

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment: Based on available data, the classification criteria are not met

12.6. Other adverse effects

Environmental precautions: Avoid uncontrolled release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

General: Avoid uncontrolled release to the environment.
Disposal method: Comply with local regulations for container disposal.
General: Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

14.1. General information

Not submitted to ADR.
UN N°: Not applicable.
Labelling - Transport: Not applicable.
Other transport information: Avoid contact with aluminium. + Moisture.
14. Transport information (continued)

14.2. Land transport (ADR-RID)

<table>
<thead>
<tr>
<th>Description</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>H.I. nr</td>
<td></td>
</tr>
<tr>
<td>ADR - Class</td>
<td></td>
</tr>
<tr>
<td>ADR - Classification code</td>
<td></td>
</tr>
<tr>
<td>ADR - Group</td>
<td></td>
</tr>
<tr>
<td>ADR - Packing instructions</td>
<td></td>
</tr>
<tr>
<td>ADR - Limited Quantity</td>
<td></td>
</tr>
<tr>
<td>ADR - Tunnel code</td>
<td></td>
</tr>
</tbody>
</table>

14.3. Sea transport (IMDG) [English only]

<table>
<thead>
<tr>
<th>Description</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>IMO-IMDG - Class or division</td>
<td></td>
</tr>
<tr>
<td>IMO-IMDG - Packing group</td>
<td></td>
</tr>
<tr>
<td>IMO-IMDG - Packing instructions</td>
<td></td>
</tr>
<tr>
<td>IMO-IMDG - Limited quantities</td>
<td></td>
</tr>
<tr>
<td>IMO-IMDG - Marine pollution</td>
<td></td>
</tr>
<tr>
<td>EMS-Nr</td>
<td></td>
</tr>
</tbody>
</table>

14.4. Air transport (ICAO-IATA) [English only]

<table>
<thead>
<tr>
<th>Description</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>IATA - Packing group</td>
<td></td>
</tr>
<tr>
<td>IATA - Limited Quantity</td>
<td></td>
</tr>
<tr>
<td>IATA - Passenger and Cargo Aircraft</td>
<td></td>
</tr>
<tr>
<td>- Passenger and Cargo - Packing instruction</td>
<td></td>
</tr>
<tr>
<td>- Passenger and Cargo - Maximum Quantity</td>
<td></td>
</tr>
<tr>
<td>IATA - Cargo only</td>
<td></td>
</tr>
<tr>
<td>- Cargo only - Packing instruction</td>
<td></td>
</tr>
<tr>
<td>- Cargo only - Maximum Quantity</td>
<td></td>
</tr>
<tr>
<td>ERG-Nr</td>
<td></td>
</tr>
</tbody>
</table>

15. Regulatory information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture: Ensure all national/local regulations are observed.

15.2. Chemical Safety Assessment

Chemical Safety Assessment: It has not been carried out.
16. Other information

Revision : 5 (23/1/2012)

Abbreviations and acronyms
- NTP-National Toxicology Program (National Toxicology Program)/
  NCI-National Cancer Institute
- The distribution coefficient octanol / water is represented by log Kow and used to evaluate the behavior of a substance in the environment.
- U.S.: EPA is the Environmental Protection Agency (environmental protection) U.S.
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transport Association.
- ADR / RID: European Agreement concerning the international carriage of dangerous goods by road / Regulation concerning the international carriage of dangerous goods by rail
- LC50/LD50: lethal concentration of a compound in air or water that kills 50% of the organisms studied in conditions especificas. / lethal dose of a compound / lethal dose of a compound that kills 50% of the organisms studied
- VLEP:Occupational exposure limits
- PBT: persistent, bio-accumulative and toxic.
- vPvB: Very persistente and very bioaccumulative.
- BCF / BAF: Bioconcentration Factor / Factor algae bioconcentration
- NOAEL / NOEC no observable effect level / no observable effect concentration
- EbC50 / ErC50: effective concentration for biomass
- ECHA: European Chemical Agency
- DNEL: derived limit without toxic effects on health
- PNEC: Predicted No Effect Concentration on the environment
- OECD: Organization for Economic Cooperation and Development

Sources of key data used
- Comission Regulation (EC) No 790/2009- CLP 01ATP
- http://www.oecd.org/document/40/0,3343,en_2649_34377_37051368_1_1_1_1,00.html
- SIDS sodium gluconate (www.inchem.org/documents/sids/sids/gluconates.pdf)
- IUCLID sodium gluconate

Further information : None.

We have tried to make it as accurate and useful as possible, but can take no responsibility for its use, misuse, or accuracy. We have not verified this information, and cannot guarantee that it is up-to-date. The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing laws and regulations. Observe the Federal, State and local authority regulations.

The Material Safety Data Sheet of our products are free available in our web page: www.dabeer.es

End of document