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

1.1 Product identifiers

Product Name: 6.0 M (71% w/v) 1,6-Hexanediol
Product Number: HR2-625
REACH No.: A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS Number: 629-11-8

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

Identified uses: Laboratory chemicals, Manufacture of substances.

1.3 Details of the supplier of the Safety Data Sheet

Company: Hampton Research
34 Journey
Aliso Viejo, CA 92656-3317
United States
Telephone: 949 425 1321
Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.
Fax: 949 425 1611
Fax Technical Support is available 24 hours a day.
e-mail: tech@hrmail.com
e-mail Technical Support is available 24 hours a day.

1.4 Emergency telephone number

Emergency phone: 949 425 1321
For CHEMTREC Assistance: 800 424 9300
For CHEMTREC Assistance: 703 527 3887 (International)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

Not a hazardous substance or mixture.

2.3 Other hazards: none
SECTION 3 - Composition/Information On Ingredients

3.1  Substances

<table>
<thead>
<tr>
<th>Synonyms</th>
<th>Hexamethylene glycol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C₆H₁₄O₂ or HO(CH₂)₆OH</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>118.18</td>
</tr>
<tr>
<td>CAS Number</td>
<td>629-11-8</td>
</tr>
<tr>
<td>EC Number</td>
<td>211-074-0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RTECS</th>
<th>Merck</th>
<th>Beilstein</th>
<th>SARA</th>
<th>MDL #</th>
<th>PubChem Substance ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO2100000</td>
<td>14,4690</td>
<td>1633461</td>
<td>No</td>
<td>MFCD00002985</td>
<td>24895435</td>
</tr>
</tbody>
</table>

No components need to be disclosed according to the applicable regulations.

SECTION 4: First Aid Measures

4.1  Description of first aid measures

General Advice
Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes as a precaution and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2  Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. The most important known symptoms and effects are described in the labeling (see Section 2.2) and/or in Section 11.

4.3  Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

5.1  Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media
None known
5.2 Special hazards arising from the substance or mixture
Carbon oxides

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further Information
no data available

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.
Ensure adequate ventilation. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.
Soak up with inert absorbent material and dispose of as hazardous waste.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling And Storage

7.1 Personal Precautions
Provide appropriate exhaust ventilation at places where dust is formed.
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
For precautions see section 2.2. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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
Components with workplace control parameters
Contains no substances with occupational exposure limit values.
Appropriate engineering controls
General industrial hygiene practice.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Do not let product enter drains.
SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance                Form: Solidified Mass or Fragments    Color: White
b) Odor                      no data available

c) Odor Threshold            no data available
d) pH                        5.3 at 25°C

e) Melting point/freezing point 38.0 - 42.0°C (lit.)
f) Initial boiling point and boiling range 250°C (lit.)
g) Flash point                no data available
h) Evaporation rate          no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapor pressure            0.53 mm Hg (20°C)
l) Vapor density              no data available
m) Relative density          no data available
n) Water solubility          no data available
o) Partition coefficient: noctanol/water no data available
p) Autoignition temperature  no data available
q) Decomposition            temperature no data available
r) Viscosity                 no data available
s) Explosive properties      no data available
t) Oxidizing properties      no data available

9.2 Other safety information
no data available

SECTION 10: Stability And Reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
no data available

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
Exposure to moisture.

10.5 Incompatible materials
Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents
SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - rat - 3,000 mg/kg
LD50 Inhalation - rat - 8 h - 3,3 mg/l
LD50 Dermal - rabbit - > 2,500 mg/kg

Skin irritation / corrosion
Skin - rabbit
Result: No skin irritation - 24 h - Draize Test

Serious eye damage/eye irritation
Eyes - rabbit
Result: No eye irritation - 24 h - Draize Test

Respiratory or skin sensitization
Maximisation Test - guinea pig - OECD Test Guideline 406 - Did not cause sensitization on laboratory animals.

Germ cell mutagenicity
no data available

Chronic exposure
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
no data available

Specific target organ toxicity - single exposure
no data available

Specific target organ toxicity - repeated exposure
no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.

In the event of fire: see section 5

CONTINUED - SECTION 10: Stability And Reactivity

10.6 Hazardous decomposition products
Other decomposition products - no data available
In the event of fire: see section 5
(CONTINUED) - SECTION 11: Toxicological Information

Aspiration hazard
no data available

Signs and Symptoms of Exposure
Gastrointestinal disturbance, Nausea, Headache, Vomiting
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information
RTECS: MO2100000

SECTION 12: Ecological Information

12.1 Toxicity
Toxicity to fish
mortality LC50 - Leuciscus idus (Golden orfe) - 4.640 - 10.000 mg/l - 96 h
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates
Immobilization EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h

Toxicity to algae
Growth inhibition EC50 - Scenedesmus capricornutum (fresh water algae) - 5.940 mg/l - 72 h

Toxicity to bacteria
Growth inhibition IC50 - Pseudomonas putida - > 10.000 mg/l - 17 h

12.2 Persistence and degradability
Biodegradability
aerobic - Exposure time 28 d
Result: 95 % - Readily biodegradable.
Method: OECD Test Guideline 301

12.3 Bioaccumulative potential
no data available

12.4 Mobility in soil
no data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects
no data available

SECTION 13: Disposal Considerations

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
(CONTINUED) - SECTION 13: Disposal Considerations

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transportation Information

14.1 UN number
ADR/RID: -  IMDG: -  IATA: -

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

14.3 Transport hazard class(es)
ADR/RID: -  IMDG: -  IATA: -

14.4 Packaging group
ADR/RID: -  IMDG: -  IATA: -

14.5 Environmental hazards
ADR/RID: No  IMDG Marine pollutant: no  IATA: No

14.6 Special precautions for user
No data available

SECTION 15: Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

15.2 Chemical Safety Assessment
For this product a chemical safety assessment was not carried out.

SECTION 16: Other Information

DISCLAIMER
For research use only. Not for drug, household, or other use.
WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

License granted to make unlimited paper copies for internal use only.