Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name  Glycerol Clones

Chemical name

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

Recommended Use  For research use only.

Uses advised against  No information available.

1.3. Details of the supplier of the safety data sheet

Supplier Name  Dharmacon, Inc., Horizon Discovery Ltd.

Supplier Address  2650 Crescent Drive Suite 100
Lafayette, CO 80026

Supplier Phone Number  Tel: 303-604-9499
Fax: 303-604-9680

Supplier Email  technical@horizondiscovery.com

For further information, please contact.

1.4. Emergency telephone number

Emergency telephone  Chemtrec International 1-703-741-5970

Emergency telephone  §45 - (EC)1272/2008
Europe  112
SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

2.2. Label elements

2.3. Other hazards
No information available

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No</th>
<th>CAS-No</th>
<th>Weight-%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>REACH Reg. No.</th>
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</thead>
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<tr>
<td>Growth Media</td>
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<td>90%</td>
<td>No data available</td>
<td>No data available</td>
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<tr>
<td>Glycerol Media</td>
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<td>56-81-5</td>
<td>10%</td>
<td>No data available</td>
<td>No data available</td>
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</table>

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No</th>
<th>SVHC candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol Media</td>
<td>56-81-5</td>
<td>-</td>
</tr>
<tr>
<td>Growth Media</td>
<td>N/A</td>
<td>-</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation          Remove to fresh air.

Skin contact        Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Eye contact         Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Ingestion           DO NOT induce vomiting. Get medical attention.

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

Symptoms            No information available.

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

Note to physicians  Treat symptomatically.
Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

**Suitable Extinguishing Media**
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
No information available.

5.2. Special hazards arising from the substance or mixture

**Specific hazards arising from the chemical**
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters

**Special protective equipment for fire-fighters**
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**For emergency responders**
Use personal protection recommended in Section 8.

6.2. Environmental precautions

**Environmental precautions**
Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

**Reference to other sections**
See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

**Advice on safe handling**
Ensure adequate ventilation. Use personal protection equipment. Avoid contact with skin, eyes or clothing.

**General Hygiene Considerations**
Handle in accordance with good industrial hygiene and safety practice.
7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep container tightly closed in a dry place. Keep at -80°C.

7.3. Specific end use(s)

Risk Management Methods (RMM)
The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)  No information available

Predicted No Effect Concentration (PNEC)  No information available

8.2. Exposure controls

Engineering Controls
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Hand Protection
Protective gloves.

Skin and body protection
Wear suitable protective clothing.

Environmental exposure controls
No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
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<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
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<td></td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Melting / freezing point</td>
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<td>None known</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
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<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
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<td>None known</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
</tbody>
</table>
Flammability (solid, gas) No data available None known
Flammability Limit in Air No data available None known
Upper flammability limit No data available None known
Lower flammability limit No data available None known
Vapor pressure No data available None known
Vapor density No data available None known
Relative density No data available None known
Water Solubility No data available None known
Solubility(ies) No data available None known
Partition coefficient: n-octanol/water No data available None known
Autoignition temperature No data available None known
Decomposition temperature No data available None known
Kinematic viscosity No data available None known
Viscosity No data available None known

9.2. Other information

Softening Point No information available
Molecular Weight No information available
VOC Content (%) No information available
Liquid Density No information available
Bulk Density No information available
Particle Size No information available
Particle Size Distribution No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions

Possibility of Hazardous Reactions None under normal processing.

Hazardous Polymerization
Hazardous polymerization does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products
None under normal use conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

**Information on likely routes of exposure**

**Product Information**

- **Inhalation**
  Specific test data for the substance or mixture is not available.
- **Eye contact**
  Specific test data for the substance or mixture is not available.
- **Skin contact**
  Specific test data for the substance or mixture is not available.
- **Ingestion**
  Specific test data for the substance or mixture is not available.

**Information on toxicological effects**

**Symptoms**

No information available.

**Numerical measures of toxicity**

**Acute Toxicity**

**Unknown acute toxicity**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

- **Skin corrosion/irritation**
  No information available.
- **Serious eye damage/eye irritation**
  No information available.
- **Respiratory or skin sensitization**
  No information available.
- **Germ cell mutagenicity**
  No information available.
- **Carcinogenicity**
  No information available.
- **Reproductive Toxicity**
  No information available.
- **STOT - single exposure**
  No information available.
- **STOT - repeated exposure**
  No information available.
- **Aspiration hazard**
  No information available.
SECTION 12: Ecological information

12.1. Toxicity
Ecotoxicity No information available.

12.2. Persistence and degradability
Persistence and Degradability No information available.

12.3. Bioaccumulative potential
Bioaccumulation No information available.

12.4. Mobility in soil
Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment
PBT and vPvB assessment No information available.

12.6. Other adverse effects
Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging No information available.

SECTION 14: Transport information

IMDG
14.1 UN Number UN3245
14.2 Proper Shipping Name GMMO
14.3 Hazard Class Not regulated
14.4 Packing group Not regulated
14.5 Marine Pollutant Not applicable
14.6 Special Provisions None
14.7 Transport in bulk No information available
according to Annex II of
MARPOL and the IBC Code

RID
14.1 UN-No. Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

ADR
14.1 UN-No. Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing Group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

IATA
14.1 UN Number Not regulated
14.2 Proper Shipping Name Not regulated
14.3 Hazard Class Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

SECTION 15: Regulatory information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to
chemical agents at work.

Authorizations and/or restrictions on use:
This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex
XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH),
Annex XVII).

Persistent Organic Pollutants
Not applicable.

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable.

International Inventories
TSCA Contact supplier for inventory compliance status.
DSL/NDSL Contact supplier for inventory compliance status.
EINECS/ELINCS
Contact supplier for inventory compliance status.

ENCS
Contact supplier for inventory compliance status.

IECSC
Contact supplier for inventory compliance status.

KECL
Contact supplier for inventory compliance status.

PICCS
Contact supplier for inventory compliance status.

AICS
Contact supplier for inventory compliance status.

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment
No information available.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend
SVHC: Substances of Very High Concern for Authorization:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
Skin designation

Key literature references and sources for data
www.ChemADVISOR.com/

Revision Date 25-Jul-2022

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

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Data for Regulatory Rules