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

1.1. Product identifier

Product Name             DharmaFECT Transfection Reagent

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            Stephanie.stroh@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>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>-</td>
<td>7732-18-5</td>
<td>95</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Sats</td>
<td>-</td>
<td>N/A</td>
<td>5</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</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>Water</td>
<td>7732-18-5</td>
<td>-</td>
</tr>
<tr>
<td>Sats</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 off immediately with plenty of water.
Eye contact    Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
Ingestion      DO NOT induce vomiting. Get medical attention immediately if symptoms occur.

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.

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 Use personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

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 and well-ventilated place.

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>
<td>Clear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No information available</td>
<td></td>
<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>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
</tbody>
</table>
Flammability Limit in Air

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Softening Point</td>
<td>No information available</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>No information available</td>
</tr>
<tr>
<td>VOC Content (%)</td>
<td>No information available</td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>No information available</td>
</tr>
<tr>
<td>Particle Size</td>
<td>No information available</td>
</tr>
<tr>
<td>Particle Size Distribution</td>
<td>No information available</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to Mechanical Impact</td>
<td>None</td>
</tr>
<tr>
<td>Sensitivity to Static Discharge</td>
<td>None</td>
</tr>
</tbody>
</table>

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 Not regulated
14.2 Proper Shipping Name Not regulated
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 according to Annex II of No information available
MARPOL and the IBC Code

**RID**

<table>
<thead>
<tr>
<th>14.1 UN-No.</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3 Hazard Class</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.5 Environmental hazard</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.6 Special Provisions</td>
<td>None</td>
</tr>
</tbody>
</table>

**ADR**

<table>
<thead>
<tr>
<th>14.1 UN-No.</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3 Hazard Class</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.4 Packing Group</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.5 Environmental hazard</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.6 Special Provisions</td>
<td>None</td>
</tr>
</tbody>
</table>

**IATA**

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 Proper Shipping Name</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.3 Hazard Class</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.4 Packing group</td>
<td>Not regulated</td>
</tr>
<tr>
<td>14.5 Environmental hazard</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.6 Special Provisions</td>
<td>None</td>
</tr>
</tbody>
</table>

**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/

Issuing Date 09-Aug-2010
Revision Date 02-Jan-2020

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