F2 CHEMICALS LIMITED
SAFETY DATA SHEET
Perfluorodecalin

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

1.1. Product identifier

Product name: Perfluorodecalin
CAS-No.: 306-94-5
EC No.: 206-192-4

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

Identified uses: Performance liquid

1.3. Details of the supplier of the safety data sheet

Supplier: F2 Chemicals Ltd.
Lea Lane
Lea Town
Preston
Lancs. PR4 0RZ UK
Tel: +44(0) 1772 775804
e-Mail: safety@f2chemicals.com

1.4. Emergency telephone number

+44(0) 1772 775833 (24 hrs)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards: Not classified.
Human health: Not classified.
Environment: Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

EC No.: 206-192-4
Label In Accordance With (EC) No. 1272/2008
No pictogram required.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Product name: Perfluorodecalin
CAS-No.: 306-94-5
EC No.: 206-192-4

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures
Perfluorodecalin

General information
Non-hazardous substance.

4.2. Most important symptoms and effects, both acute and delayed
General information
Non-hazardous substance.

4.3. Indication of any immediate medical attention and special treatment needed
No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing media
This product is not flammable.

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products
Very toxic gases/vapours/fumes of: Hydrogen fluoride (HF).

5.3. Advice for firefighters
Protective equipment for fire-fighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Non-hazardous substance.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Non-hazardous substance.

7.2. Conditions for safe storage, including any incompatibilities
Storage Class
Unspecified storage.

7.3. Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters
Ingredient Comments
No exposure limits noted for ingredient(s).

8.2. Exposure controls
Protective equipment
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless.</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Initial boiling point and boiling range (°C)</td>
<td>142</td>
</tr>
<tr>
<td>Melting point (°C)</td>
<td>-5</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.941</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Fast</td>
</tr>
<tr>
<td>pH-Value, Conc. Solution</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>5.10 mPas</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>&gt;400</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability Limit - Lower(%)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Flammability Limit - Upper(%)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Does not meet the criteria for oxidising.</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particle Size (Micron)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Mol. Weight</td>
<td>462</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Alkali metals.

10.6. Hazardous decomposition products

Fire creates: Hydrogen fluoride (HF).

SECTION 11: TOXICOLOGICAL INFORMATION
11.1. Information on toxicological effects

Toxicological information
Non-hazardous substance.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute Fish Toxicity
Not considered toxic to fish.

12.2. Persistence and degradability

Degradability
The product is not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential
Bioaccumulation is unlikely to be significant because of the low water solubility of this product.

12.4. Mobility in soil

Mobility:
The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Incinerate with provision for removal of effluent gases by scrubber.

SECTION 14: TRANSPORT INFORMATION

General
The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user
Perfluorodecalin

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

15.2. Chemical Safety Assessment
No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 02/10/2015
Revision 1
Risk Phrases In Full Not classified.
Hazard Statements In Full

Disclaimer
This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.