Section 1: Chemical Product / Company Identification

Trade name: OPTOOL DSX

Company identification
Manufacturer: DAIKIN INDUSTRIES, LTD. CHEMICAL DIVISION:
Umeda Center Bldg., 4-12, Nakazaki-Nishi2-chome, Kita-Ku, Osaka, JAPAN
Phone: (+81) 6-6373-4349 Fax: (+81) 6-6373-4389

Supplier in EU: DAIKIN CHEMICAL EUROPE GmbH
ImmermannStr. 65 d, 40210 Düsseldorf, GERMANY
Phone: (+49) 211-1640-834. Fax: (+49) 211-1640-734,

Supplier in US: DAIKIN AMERICA, INC.
20 Olympic Drive, Orangeburg, New York 10962
Phone: +1-800-365-9570

Emergency telephone
Company +81-6-6373-4349, +49-211-179 225 25, +1-845-365-9500

Section 2: Composition / information on ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>mass %</th>
<th>CAS RN</th>
<th>Symbols</th>
<th>R-Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfluorinated compounds</td>
<td>20</td>
<td>Trade secret</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Perfluorohexane</td>
<td>80</td>
<td>86508-42-1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Section 3: Hazard identification

EMERGENCY OVERVIEW:
Nonflammable.
The major health hazard associated with this material is the inhalation of thermal decomposition products.

WARNING:
Vapors and fumes liberated during hot processing with this material may cause flu-like symptoms (chills, fever and, sometimes, cough) that may not occur until several hours after exposure and typically pass within about 36 to 48 hours.

Section 4: First aid measures

Inhalation
If any solvent vapors are inhaled, or if exposed to fumes from overheating or combustion, remove to fresh air. Keep warm and at rest. If breathing has stopped, give artificial respiration. Call a physician.

Eyes
Immediately flush eyes with plenty of water for at least 15 minutes (remove contact lenses if easily possible). Consult an oculist.

Skin
Wash thoroughly with soap and water immediately.

Ingestion
Wash out mouth with water. Consult a physician.
SECTION 5: Fire-fighting measures

General Information  Non-flammable.


Fire fighting procedures  Keep personnel removed and upwind of fire.
Wear self-contained breathing apparatus (SCBA) and full protective equipment.

WARNING:
Hazardous decomposition products including carbon dioxide, carbon monoxide, hydrogen fluoride, toxic gases or particles may be formed during combustion. These products may cause severe eye, nose, throat, and lung irritation or toxic effects.

SECTION 6: Accidental release measures

General Information  Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks  Do NOT wash away into sewer or waterways.
Adsorb spillages onto sand, earth or any suitable adsorbent material.
Transfer to covered steel drums for recovery or disposal.

SECTION 7: Handling and storage

Handling  Use proper personal protective equipment as indicated in Section 8.
Use in well ventilated areas.
Avoid contact with eyes and skin and breathing of vapors or mist.
Wash hands thoroughly after handling.
Wash clothing after use.
Do not store or consume food, drink, or tobacco in areas where they may become contaminated with this material.
Follow safe industrial hygiene practices and wear proper protective equipment when handling this compound.

Storage  Keep container tightly closed.
Keep away from direct heat or sunlight.

SECTION 8: Exposure controls / personal protection

Engineering Controls  Provide general or local exhaust ventilation systems to prevent the inhalation of solvent vapor.

Personal Protective Equipment:
Clothing  Wear impervious gloves, pants, and jacket.
Eye  Wear safety glasses or coverall chemical splash goggles.
Respirators  Wear NIOSH approved respiratory protection, as appropriate.

SECTION 9: Physical and chemical properties

Physical State  Colorless liquid
Boiling point  56 C (Estimation)
Relative density  1.7 (Estimation)
Solubility  insoluble in water
Flash Point  none
**SECTION 10: Stability and reactivity**

**Stability**
Stable at room temperature in closed containers under normal storage and handling conditions.

**Incompatibility**
Ignition sources, excess heat.

**Decomposition**
Carbon monoxide, carbon dioxide, HF, toxic gases or particles may be formed during combustion.

**Polymerization**
Will not occur.

**SECTION 11: Toxicological information**

*(Perfluorinated compounds)*

**Acute toxicity**
orl-rat LD50 >2000 mg/kg

**Skin irritation**
rabbit: non to mildly irritating

**Eye irritation**
rabbit: minimally irritating

**Hypersensitivity**
no data

**Mutagenicity**
Ames Assay: Negative

**SECTION 12: Ecological information**

This substance may not degrade significantly in most natural environments.

**SECTION 13: Disposal considerations**

Comply with Federal, State and Local regulations concerning health and environment.

This material can be disposed by using landfill or by incineration.

In case of incineration, mix with flammable material and incinerate in an industrial or commercial facility which has the function of standing the acid.

**SECTION 14: Transport information**

Not regulated as a hazardous material by DOT, IMO, or IATA.

**SECTION 15: Regulatory information**

**NFPA RATINGS (SCALE 0-4):** HEALTH=3, FIRE=0, REACTIVITY=0

National Fire Protection Association Hazard Codes are designed for use by firefighters, sheriffs, or other emergency response teams who are concerned with the hazards of materials under emergency conditions. These NFPA codes are intended to include the hazards of the products of decomposition or combustion in a fire situation.

**HMIS RATINGS (SCALE 0-4):** HEALTH=0, FIRE=0, REACTIVITY=0

Hazardous Material Identification System (HMIS(r)) hazard ratings are designed to inform employees of chemical hazards in the workplace. These ratings are based on the inherent properties of the material under expected conditions of normal use and are not intended for use in emergency situations. HMIS(r) ratings are to be used with a fully implemented HMIS(r) program. HMIS(r) is a registered mark of the National Paint and Coatings Association (NPCA).

European Labeling in Accordance with EC Directives

**Hazard Symbols**
-

**Risk Phrases**
-

**Safety Phrases**
15: Keep away from heat.
20/21: When using, do not eat, drink or smoke.
3/7: Keep container tightly closed in a cool place.

**SECTION 16: Other information**
This product is not designed, manufactured, or intended for medical uses, including implantation to the body or other applications in direct contact with body fluids or tissues.

Do not use for non-industrial applications.

The information in this Material Safety Data Sheet (MSDS) is believed to be correct as of the date issued. The information does not relate to use in combination with any other material or in any process.

DAIKIN INDUSTRIES, LTD.CHEMICAL DIVISION:
homepage: http://www.daikin.co.jp/chm/