



**SAFETY DATA SHEET**  
according to Regulation (EC) No. 1907/2006

Version 2.0  
Revision date: 27.04.2012

Material:  
Print Date 22.05.2014

**1. Identification of the substance / preparation and the company / undertaking**

Trade name : Immersol™ HI 1,66

Manufacturer/supplier : Carl Zeiss Jena GmbH  
Oberkochen location

Address : Carl-Zeiss-Straße 22  
D-73447 Oberkochen

Telephone : +49 7364 20-0

Technical Information : Chemical and material engineering  
Telephone : +49 7364 20-4599  
Telefax : +49 7364 20-4521

Product Safety : Chemical and material engineering  
Mailto : zeih@zeiss.de, hamm@zeiss.de

Emergency telephone number : Poisoning Control Center  
Telephone : +49 551 19240 (24 hours)

**Use of the Substance / Preparation**

Sector : Life Sciences, Research and Development  
Application category : Only for research and development  
Use : High refractive index Immersion oil, halogen-free

**2. Hazards identification**

**Classification according to Regulation (EC) No. 1272/2008 (GHS) <sup>1</sup>**

According to current knowledge, not applicable.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>**

According to current knowledge, not applicable.

For footnotes, see section 16.

**3. Composition / information on ingredients**

**Information on the substance / preparation (mixture)**

Preparation (mixture) based on thio-ester.

**Hazardous components**

| Description       | Number(s)                      | Concentration | Symbol(s)<br>Pictogram(s) | R-phrase(s)<br>Hazard statements |
|-------------------|--------------------------------|---------------|---------------------------|----------------------------------|
| Diphenyl sulphide | EC: 205-371-4<br>CAS: 139-66-2 | 2,00 - 5,00%  | Xn                        | R22-R38                          |
|                   |                                |               |                           | H302, H315                       |

For the full text of the R phrases, see section 16



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For the full text of the Hazard statements, see section 16.

#### 4. First aid measures

- |                |   |   |
|----------------|---|---|
| General advice | : | Remove and wash contaminated clothing before re-use.  |
| Inhalation     | : | Provide with fresh air. In the case of inhalation of aerosol/mist consult a physician if necessary.           |
| Skin contact   | : | Wash off with soap and plenty of water. In the case of skin irritation or allergic reactions see a physician. |
| Eye contact    | : | Rinse immediately with plenty of water for at least 5 minutes. Consult a physician.                           |
| Ingestion      | : | Rinse mouth. Only trained first-aid staff may induce vomiting. Consult a physician.                           |

#### 5. Fire-fighting measures

- |   |   |   |
|---|---|---|
| Suitable extinguishing media  | : | Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Foam, water spray jet  |
| Extinguishing media which shall not be used for safety reasons      | : | High volume water jet   |
| Hazards caused by the substance/combustion products/origin of gases | : | In case of fire formation of carbonoxides and other toxic gases/vapors is possible. (see section 10). In the event of fire and/or explosion do not breathe fumes. |
| Special protective equipment for firefighters                       | : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.   |

#### 6. Accidental release measures

- |                           |   |   |
|---------------------------|---|---|
| Personal precautions      | : | Avoid contact with skin, eyes and clothing. Use personal protective equipment.  |
| Environmental precautions | : | Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.  |
| Removal                   | : | Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. |

#### 7. Handling and storage

##### Handling

- |   |   |   |
|---|---|---|
| Safe handling advice                            | : | Avoid contact with skin and eyes. Wear personal protective equipment. |
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection.                       |

##### Storage

- |   |   |   |
|---|---|---|
| Requirements for storage areas and containers | : | Keep only in the original container. Keep tightly closed. Protect from direct insolation. |
| Incompatibilities/not to be                   | : | Keep away from food and drink. Keep away from incompatible                                |



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stored with \_\_\_\_\_ material.

**Storage stability**

Storage temperature : 12 - 28 °C

**8. Exposure controls / personal protection**

**Exposure limit(s)**

Note : None.

**Occupational exposure controls**

- Protective measures : Avoid contact with skin, eyes and clothing. Take off all contaminated clothing immediately. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday.
- Respiratory protection : Not required; except in case of aerosol formation.
- Hand protection : Use protective gloves which have been adapted to the respective purpose and are appropriately resistant to chemicals (DIN EN 374). The "Regulations for the use of protective gloves" (BGR 195) contain information on what gloves to choose and for what purpose they should be used. Ask the glove supplier for the penetration time of the glove material.
  - : Glove material: e.g. butyl rubber  
Layer thickness: 0,7 mm  
Break through time: > 480 min  
(in full contact)
  - : Glove material: e.g. nitrile rubber  
Layer thickness: 0,4 mm  
Break through time: > 30 min  
(in splash contact)
- Eye protection : Safety glasses
- Skin and body protection : closed work clothing, Keep working clothes separately.

**Environmental exposure controls**

Additional advice : see section 6

**9. Physical and chemical properties**

**General Information**

- Form : liquid
- Colour : yellow
- Odour : characteristic slight

**Important Health Safety and Environmental Information**

- Boiling point/boiling range : > 250 °C
- Flash point : > 120 °C (open cup)



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Density : 1,17 g/cm<sup>3</sup> at 20 °C (DIN 51757)  
Water solubility : insoluble  
Viscosity, kinematic : 370 mm<sup>2</sup>/s at 20 °C (DIN 51562)

### 10. Stability and reactivity

Thermal decomposition : No decomposition if stored and applied as directed.  
Hazardous reactions : None known.  
Conditions to avoid : Protect from heat, heating sources and direct insolation.  
Materials to avoid : Strong acids and strong bases, Oxidizing agents  
Hazardous decomposition products : None known.  
Hazardous decomposition products in the event of fire : Carbon monoxide, carbon dioxide, not completely burned hydrocarbons, hydrogensulphide, Sulphur oxides, and other toxic gases and vapors

### 11. Toxicological information

#### General Information

Other information on toxicity : No data is available on the product itself. The product should be handled with the care usual when dealing with chemicals.

### 12. Ecological information

#### Other environmental data

Other data : No data is available on the product itself. Do not discharge into sewerage system, surface water or soil. Adequate disposal

### 13. Disposal considerations

Product : In accordance with local and national regulations.  
Uncleaned packaging : Dispose of as unused product.

### 14. Transport information

#### Land transport ADR/RID

Not classified as dangerous in the meaning of transport regulations.



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**Sea transport IMDG**

Not classified as dangerous in the meaning of transport regulations.

**Air transport ICAO/IATA**

Not classified as dangerous in the meaning of transport regulations.

**15. Regulatory information**

**Labelling according to Regulation (EC) No. 1272/2008 (GHS) <sup>1</sup>**

Not applicable.

**Special labelling of certain mixtures**

Safety data sheet available on request.

For footnotes, see section 16.

**Labelling according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>**

Not applicable.

**Special labelling of certain preparations**

Safety datasheet available on request for professional users.

For footnotes, see section 16.

**EU-Regulations**

Seveso Directive II : 96/82/EG: Does not fall under Seveso II - Directive / Major accident legislation

**16. Other information**

The information in this safety sheet is based on the data available at the time of compilation and is intended to describe the product with respect to the precautions to be taken in its use. This information is provided without any guarantee of the properties specified.

**Update information**

Relevant changes to the previous version are symbolized by vertical bars at the left edge.

Additions : Classification and Labelling according to GHS (Regulation 1272/2008)



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**Full text of R-phrases mentioned in Section 3**

R22 : Harmful if swallowed.  
R38 : Irritating to skin.

**Full text of Hazard statements mentioned in Section 3**

H302 : Harmful if swallowed.  
H315 : Causes skin irritation

**Additional advice**

Sources: Reg. 1272/2008, Annex VI, TRGS 900, Supplier details, TRGS 903, International dangerous goods regulations

**Footnotes:**

1] Obligatory for substances from December, 01, 2010, obligatory for mixtures from June, 01, 2015.

2] Valid for substances until November, 30, 2010, valid for preparations (mixtures) until May, 31, 2015.



authorized dealer:  
Pulch + Lorenz microscopy  
Am Untergrün 23, D-79232 March  
tel: 07665 9272-0  
fax: 07665 9272-20  
mail: kontakt@pulchlorenz.de  
web: pulchlorenz.de