



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

Version 2.0  
Revision date: 12.03.2021

**Immorsol™ HI 661**

Material: 000000-0616-325  
Date of last issue: 28.05.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**Product identifier**

Product name : Immorsol™ HI 661  
UFI : 3H30-X03V-7003-X3X1

**Relevant identified uses of the substance or mixture and uses advised against**

Sector : Life Sciences, Research and Development  
Sector of use : Only for research and development  
Identified uses : High refractive index Immersion oil, halogen-free

**Details of the supplier of the safety data sheet**

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  
E-mail address : gabriele.zeiher@zeiss.com, uwe.hamm@zeiss.com

**Emergency telephone number**

Poisoning Control Center : +49 551 19240 (24 hours)

**SECTION 2: Hazards identification**

**Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 (CLP)**

Acute Tox. 4, H302 : Harmful if swallowed.  
Skin Irrit. 2, H315 : Causes skin irritation.  
Aquatic Chronic 4, H413 : May cause long lasting harmful effects to aquatic life.

**Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 (CLP)**



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**Hazard pictograms**



**Signal word: Warning**

**Hazard statements**

H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H413 : May cause long lasting harmful effects to aquatic life.

**Precautionary statements**

P270 : Do not eat, drink or smoke when using this product.  
P273 : Avoid release to the environment.  
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313 : If skin irritation occurs: Get medical advice/ attention.

**Other hazards**

None known.

**SECTION 3: Composition/information on ingredients**

**Chemical nature: Mixtures**

Mixture based on thiourethanes.

**Hazardous components**

Substance name	Number(s)	Concentration	Classification
Diphenyl sulphide	EC-No.: 205-371-4 CAS-No.: 139-66-2	60,00 - 65,00%	Acute Tox. 4 , H302 Skin Irrit. 2 , H315 Aquatic Chronic 4 , H413

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

**SECTION 4: First aid measures**

**Description of first aid measures**

General advice : Remove and wash contaminated clothing before re-use. If symptoms occur or if in doubt, seek medical advice.  
Inhalation : Provide with fresh air.  
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.



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Ingestion : Rinse mouth. Only trained first-aid staff may induce vomiting. Consult a physician.

**Most important symptoms and effects, both acute and delayed**

Symptoms : The most important known symptoms and effects are described in section 2 and / or section 11.

**Indication of any immediate medical attention and special treatment needed**

Treatment : No information available.

**SECTION 5: Firefighting measures**

**Extinguishing media**

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>), Dry chemical, Foam, Water spray jet  
Unsuitable extinguishing media : High volume water jet

**Special hazards arising from the substance or mixture**

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.

**Advice for firefighters**

Protective equipment : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.  
Protective measures : Avoid extinguishing water reaching water, ground water or sewage system. Dispose extinguishing water according the local, official regulations.

**SECTION 6: Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

Precautions : Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not breathe vapor/aerosol. Ensure adequate ventilation.

**Environmental precautions**

Environmental precautions : Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

**Methods and material for containment and cleaning up**

Removal : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**Reference to other sections**

Additional advice : Adequate disposal For disposal considerations see section 13.

**SECTION 7: Handling and storage**



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**Precautions for safe handling**

Safe handling advice : Avoid contact with skin and eyes. Wear personal protective equipment. Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Keep only in the original container. Keep tightly closed. Keep away from direct sunlight.

Advice on common storage : Keep away from food and drink. Keep away from incompatible material.

Storage temperature : 12 - 28 °C

**Specific end use(s)**

Use : Apart from the uses mentioned in section 1 no other specific uses are intended.

**SECTION 8: Exposure controls/personal protection**

**Control parameters**

Note : None.

**Exposure controls**

**Individual protection measures, such as personal protective equipment**

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 : Goggles

Skin and body protection : closed work clothing, Keep working clothes separately.

**Environmental exposure controls**

Additional advice : see section 6



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## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

Form	:	liquid
Colour	:	pale yellowish
Odour	:	like organic sulphur
Flash point	:	> 110 °C
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	4,45 at 25 °C (Diphenyl sulfide)
Viscosity, kinematic	:	30 - 40 mm <sup>2</sup> /s at 20 °C (DIN 51562)

## SECTION 10: Stability and reactivity

### Reactivity

Notes : No data available

### Chemical stability

Thermal decomposition : No data available  
Stability : No decomposition if stored and applied as directed.

### Possibility of hazardous reactions

Hazardous reactions : Violent reactions are possible with oxidizing agents.

### Conditions to avoid

Conditions : Strong heating.

### Incompatible materials to avoid

Materials to avoid : Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products : None known.  
Hazardous decomposition products in the event of fire : Carbon monoxide, carbon dioxide, not completely burned hydrocarbons, Hydrogen sulphide, Sulphur oxides, and other toxic gases and vapors

## SECTION 11: Toxicological information

### Information on toxicological effects

Acute oral toxicity : Acute toxicity estimate : 877 mg/kg



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Skin irritation : Causes skin irritation.  
Eye irritation : None known.  
Sensitisation : None known.  
Specific target organ toxicity - single exposure : No data available  
Carcinogenicity : No data available  
Germ cell mutagenicity : No data available  
Reproductive toxicity : No data available  
Aspiration hazard : No data available  
Other information on toxicity : No data is available on the product itself. Other dangerous properties can not be excluded. The product should be handled with the care usual when dealing with chemicals.

## **SECTION 12: Ecological information**

### **Persistence and degradability**

Biological degradability : No data available

### **Bioaccumulative potential**

General Information : Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

### **Mobility in soil**

Additional advice : No data available

### **Results of PBT and vPvB assessment**

Result Chemical Safety Report : Not applicable

### **Ecotoxicology Assessment**

Short-term (acute) aquatic hazard : No data available

### **Other adverse effects**

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

## **SECTION 13: Disposal considerations**

### **Waste treatment methods**

Product : In accordance with local and national regulations.

Uncleaned empty packaging : Dispose of as unused product.



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## SECTION 14: Transport information

### Land transport ADR/RID

Technical name(s) :  
Not classified as dangerous in the meaning of transport regulations.

### Sea transport IMDG

Technical name(s)  
Not classified as dangerous in the meaning of transport regulations.

### Air transport ICAO/IATA

Hazard class : 9      UN number : 3334      Packaging group : III  
Labels : 9  
Proper shipping name : Aviation regulated liquid, n.o.s.  
Technical name(s) : (Diphenyl sulphide, mixture)

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

Seveso Directive : 2012/18/EU:  
Does not fall under Seveso III - Directive / Major accident legislation.

Restrictions : Follow Directive 92/85/EC on the protection of pregnant workers and workers who have recently given birth or are breastfeeding, and its national implementations.  
: Follow Directive 94/33/EC on the protection of young people at work and its national implementations.

### Chemical safety assessment

Not required.

## SECTION 16: Other information



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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 : UFI (Unique Formula Identifier)

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

H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H413 : May cause long lasting harmful effects to aquatic life.

**Additional advice**

Classification procedure: Generic / specific concentration limits for classification, Calculation method on the components

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