



SAFETY DATA SHEET  
according to 1907/2006 (EU)

Version 5.0  
Revision date: 03.12.2009

Material:  
Print Date 15.06.2011

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

Trade name : IMMERSOL (TM) 518 F  
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 : Poisoning Control Center  
Telephone : +49 551 19240 (24 hours)

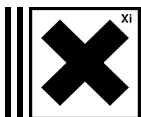
#### Use of the Substance / Preparation

Sector : Life Sciences, Research and Development  
Application category : Industrial and professional use  
Use : Immersion medium

For application information, consult the processing instructions. Processing instructions or technical information sheet available on request.

### 2. Hazards identification

#### Classification



Xi - Irritant

Irritating to skin. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. Composition / information on ingredients

#### Chemical characterization

Halogen-free immersion oil based on ester oil.

#### Hazardous components

Description	Number(s)	Concentration	Symbol(s)	R-phrase(s)
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Adipic acid-di(8-methyl-tricyclo(5.2.1.0.2.6.) decane) ester	EC: 430-080-6 Registration Number REACH: 01-0000017636-64-0000 CAS: 195371-10-9	70,00 - 75,00%	Xi	R38
Benzylbenzoate	EC: 204-402-9 CAS: 120-51-4	15,00 - 20,00%	Xn, N	R22-R51/53

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

#### 4. First aid measures

- General advice : Take off all contaminated clothing immediately.
- 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. If symptoms persist, call 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 possible. In the event of fire and/or explosion do not breathe fumes.
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

#### 6. Accidental release measures

- Personal precautions : Avoid contact with skin, eyes and clothing.
- Environmental precautions : Do not discharge into sewerage system, surface water or soil.
- Removal : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Adequate disposal

#### 7. Handling and storage

##### Handling

- Safe handling advice : Avoid contact with skin and eyes.



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

### Storage

Requirements for storage areas and containers : Store at room temperature in the original container. Keep tightly closed.  
Incompatibilities/not to be stored with : Keep away from food and drink. Do not mix with other immersion liquids.

## 8. Exposure controls / personal protection

### Exposure limit(s)

Note : None.

### Occupational exposure controls

Protective measures : Avoid contact with skin, eyes and clothing.  
Hygiene measures : Take off all contaminated clothing immediately. When using, do not eat, drink or smoke.  
Respiratory protection : Not required; except in case of aerosol formation.  
Hand protection : Avoid contact with skin. Use protective gloves which have been adapted to the respective purpose and are appropriately resistant to chemicals (DIN EN 374). Ask the glove supplier for the penetration time of the glove material.  
Eye protection : Avoid contact with eyes, if necessary wear eye protection.  
Skin and body protection : Use personal protective equipment.

### Environmental exposure controls

Additional advice : see section 6

## 9. Physical and chemical properties

### General Information

Form : liquid  
Colour : colourless  
Odour : slight aromatic

### Important Health Safety and Environmental Information

Boiling point/boiling range : ca. 320 °C  
Flash point : 249 °C (ISO 2592)  
Vapour pressure : < 0,1 hPa at 20 °C  
Density : 1,093 g/cm<sup>3</sup> at 20 °C (DIN 51757)  
Water solubility : insoluble  
Viscosity, kinematic : 445 mm<sup>2</sup>/s at 20 °C (DIN 51562)



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### 10. Stability and reactivity

- Thermal decomposition : No decomposition if stored and applied as directed.  
Hazardous reactions : None known.  
Hazardous decomposition products : None known.  
Hazardous decomposition products in the event of fire : In case of fire formation of carbonoxides and other toxic gases/vapors possible.

### 11. Toxicological information

#### Toxicology tests

- Skin irritation : Irritating to skin.  
Eye irritation : May cause eye irritation.

#### General Information

- Other information on toxicity : No data is available on the product itself. The product is classified in accordance with the EC directive 1999/45/EEC (hazardous preparations). Health injuries are not known or expected under normal use. 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. Ecological injuries are not known or expected under normal use. 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



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Not classified as dangerous in the meaning of transport regulations.

**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**

**Letter(s) for the symbol(s) and indications of danger**



Xi : Irritant

**R-phrase(s)**

R38 : Irritating to skin.  
R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**

S37 : Wear suitable gloves.  
S61 : Avoid release to the environment. Refer to special instructions/ Safety data sheets.

**EU-Regulations**

Restrictions : 92/85/EWG:  
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.  
: 94/33/EG:  
Follow Directive 94/33/EC on the protection of young people at work and its national implementations.

**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.

**Text of R phrases mentioned in section 3**

R22	Harmful if swallowed.
R38	Irritating to skin.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Additional advice**

Sources: Directive 67/548/EEC Annex I, TRGS 900, Supplier details, TRGS 903, International dangerous goods regulations