

**SAFETY DATA SHEET**

according to EC directive 91/155/EC

Version 4.0

Immersol (TM) 518 F

Material: 000000-0360-890

Revision date: 11.08.2005

print date: 11.04.2008



1262466 ABC

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

Trade name : IMMERSOL (TM) 518 F

Manufacturer/supplier : Carl Zeiss AG

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

Telephone : +49 7364 20-0

Contact for information : Forschung & Technologie; Technologie Chemie (FT-TC)

Telephone : +49 7364 20-4599

Telefax : +49 7364 20-4521

Emergency telephone number : Poisoning Control Center  
+49 551 19240

**Use of the Substance / Preparation**

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

**2. Composition / information on Ingredients****Chemical characterization**

Halogen-free immersion oil based on ester oil.

Synonyms :

CAS-No. :

EC-No. :

INDEX No. :

**Hazardous components**

Description	Number	Concentration	Symbol(s)	R-phrases
Di-(TCD-Methylol)-adipate	CAS: 195371-10-9 EC:	70,00 - 75,00%	XI	R38
Benzylbenzoate	CAS: 120-51-4 EC: 204-402-9	15,00 - 20,00%	Xn	R22

**3. Hazards Identification****Classification**

Irritating to skin.

**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

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Eye contact : Irritation or allergic reactions see a physician.  
: 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 (CO2), dry chemical, foam, water spray jet

Extinguishing media which must 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). Sweep up and shovel.

**7. Handling and storage****Handling**

Safe handling advice : Avoid contact with skin and eyes.

Advice on protection against fire and explosion : normal measures of 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)**

Components	CAS-No.	Value	Basis	Concentration
------------	---------	-------	-------	---------------

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.

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- |                          |                                                                                                                                                                                                                                      |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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           | : safety glasses, Avoid contact with eyes.                                                                                                                                                                                           |
| Skin and body protection | : Use personal protective equipment.                                                                                                                                                                                                 |

### 9. Physical and chemical properties

#### General information

- |        |                   |
|--------|-------------------|
| Form   | : liquid          |
| Colour | : colourless      |
| Odour  | : slight aromatic |

#### Important Health Safety and Environmental information

- |                      |                                                  |
|----------------------|--------------------------------------------------|
| Boiling point/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 )  |

### 10. Stability and reactivity

- |                                  |                                                                      |
|----------------------------------|----------------------------------------------------------------------|
| Thermal decomposition            | : No decomposition if stored and applied as directed.                |
| Hazardous reactions              | : None known                                                         |
| Hazardous decomposition products | : None known, Under fire conditions: Carbon monoxide, carbon dioxide |

### 11. Toxicological information

- |                               |                                                                                                                                                                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin irritation               | : Irritating to skin.                                                                                                                                                                                                                                                                |
| Eye irritation                | : May cause eye irritation.                                                                                                                                                                                                                                                          |
| 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. Handle in accordance with good industrial hygiene and safety practice. |

### 12. Ecological information

#### Further information

- |            |                                                                                                                                                                                                |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other data | : No data is available on the product itself. Do not discharge into sewerage system, surface water or soil. Adequate disposal. Ecological injuries are not known or expected under normal use. |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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### 13. Disposal considerations

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

### 14. Transport information

#### Other information

- |                             |                                                                      |
|-----------------------------|----------------------------------------------------------------------|
| ADR, IATA_C, IATA_P, IMDG : | Not classified as dangerous in the meaning of transport regulations. |
|-----------------------------|----------------------------------------------------------------------|

### 15. Regulatory information

#### Labelling name

#### Code letter and hazard labeling of product

- |    |          |
|----|----------|
| XI | Irritant |
|----|----------|

Hazardous components which must be listed on the label:

#### R-phrases(s)

- |     |                       |
|-----|-----------------------|
| R36 | : Irritating to skin. |
|-----|-----------------------|

#### S-phrases(s)

- |     |                         |
|-----|-------------------------|
| S37 | : Wear suitable gloves. |
|-----|-------------------------|

EC-No. :

### 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.

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

- |                                        |                                                                            |
|----------------------------------------|----------------------------------------------------------------------------|
| Department compiling safety data sheet | : Technologiezentrum Chemie (Dept. FT-TC)                                  |
| Contact person                         | : G. Zeiher, Phone +49 7364 20-4606<br>Dr. U. Hamm, Phone +49 7364 20-4599 |

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## Text of R phrases mentioned in Section 2

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

