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 : Poisening 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-phrase(s)
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 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.

SAFETY DATA SHEET
according to EC directive 91/155/EC

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5. Fire-fighting measures

Suitable extinguishing media : carbon dioxide (CO_2), 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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Heal

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/cm3 at 20 °C (DIN 51757)
Water solubility	:	insoluble
Viscosity, kinematic	:	445 mm2/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.

SAFETY DATA SHEET
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Revision date: 11.08.2005 | print date: 11.04.2008

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-phrase(s)

R38	:	Irritating to skin.

S-phrase(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 Dr. U. Hamm, Phone +49 7364 20-4599

Text of R phrases mentioned in Section 2

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