



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

Version 6.1
Revision date: 07.08.2015

Material:
Print Date 10.08.2015

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

Trade name : Immersol™ 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 : gabriele.zeiher@zeiss.com, uwe.hamm@zeiss.com

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 : Industrial and professional use

Use : Immersion oil for fluorescence-microscopy, halogen-free, low fluorescence

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

2. Hazards identification

Classification according to Regulation (EC) No. 1272/2008 (GHS)¹

Skin irritation, Category 2
H315: Causes skin irritation.

Chronic aquatic toxicity, Category 3
H412: Harmful to aquatic life with long lasting effects.

Classification procedure: Calculation method on the components

Classification according to Directive 67/548/EEC or Directive 1999/45/EC²

Xi: Irritant
R38: Irritating to skin.

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

For footnotes, see section 16.



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3. Composition / information on ingredients

Information on the substance / preparation (mixture)

Halogen-free immersion oil based on ester oil.

Hazardous components

Description	Number(s)	Concentration	Symbol(s) Pictogram(s)	R-phrase(s) Hazard statements
Adipic acid-di(8-methyl-tricyclo(5.2.1.0.2.6.) decane) ester	Registration Number REACH: 01-0000017636-64 EC: CAS: 195371-10-9	70,00 - 75,00%	Xi	R38
				H315
Benzyl benzoate	Registration Number REACH: 01-2119976371-33 EC: 204-402-9 CAS: 120-51-4 Index-No.: 607-085-00-9	15,00 - 20,00%	Xn, N	R22-R51/53
				H302, H411

For the full text of the R phrases, see section 16
For the full text of the Hazard statements, 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 ₂), 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. In the event of fire and/or explosion do not breathe fumes.
Special protective equipment	:	In the event of fire, wear self-contained breathing apparatus.



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for firefighters

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.
- 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 : closed work clothing

Environmental exposure controls

- Additional advice : see section 6

9. Physical and chemical properties



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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/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.
Hazardous decomposition products in the event of fire : In case of fire formation of carbonoxides and other toxic gases/vapors is possible.

11. Toxicological information

Toxicology tests

Acute oral toxicity : Acute toxicity estimate : 10.578 mg/kg
Skin irritation : Irritating to skin.
Eye irritation : May cause eye irritation.

General Information

Other information on toxicity : The mixture itself is not examined. The data refer to the specifications of the ingredients. 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.



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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

Land transport ADR/RID

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 according to Regulation (EC) No. 1272/2008 (GHS) ¹



Signal word: Warning

Hazard statements

- H315 : Causes skin irritation.
H412 : Harmful to aquatic life with long lasting effects.

Precautionary statements

- P273 : Avoid release to the environment.
P280 : Wear protective gloves.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.

For footnotes, see section 16.

Labelling according to Directive 67/548/EEC or Directive 1999/45/EC ²



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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.

For footnotes, see section 16.

EU-Regulations

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

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

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.

Full 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.

Full text of Hazard statements mentioned in Section 3

H302 : Harmful if swallowed.



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H315 : Causes skin irritation.
H411 : Toxic to aquatic life with long lasting effects.

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.