



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

Version 2.2  
Revision date: 12.08.2015

Material:  
Print Date 13.08.2015

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

Trade name : Immersol™ W (2010)

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 fluid for water-immersion objectives, 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) <sup>1</sup>

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

For footnotes, see section 16.

**Additional risk advice for man and the environment**

Thermal decomposition can lead to release of toxic and corrosive gases.

**3. Composition / information on ingredients**

**Information on the substance / preparation (mixture)**

Modified perfluoropolyether.

**4. First aid measures**

General advice : Remove and wash contaminated clothing before re-use.

Inhalation : Move to fresh air in case of accidental inhalation of fumes from



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- overheating or combustion. Oxygen or artificial respiration if needed. Call a physician.
- Skin contact : Wash off with soap and water. If symptoms persist, call a physician.
- Eye contact : Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.
- Ingestion : Rinse mouth. Do not give anything to drink or eat. Do NOT induce vomiting. Call a physician.

### 5. Fire-fighting measures

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Hazards caused by the substance/combustion products/origin of gases : In case of fire formation of fluorine-compounds possible. (see section 10).
- Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit. Use acid-resistant protective clothing for use nearby.
- Other data : The product itself does not burn. Evacuate personnel to safe areas. Keep product and empty container away from heat and sources of ignition. Cool undamaged containers and/or remove them from the danger zone. Make sure to use protective devices!

### 6. Accidental release measures

- Personal precautions : Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Sweep up to prevent slipping hazard.
- Environmental precautions : Prevent discharge into sewerage system, soil or aquatic environment.
- Removal : Soak up with inert absorbent material. Clean contaminated surface thoroughly. Adequate disposal.

### 7. Handling and storage

#### Handling

- Safe handling advice : Avoid contact with skin and eyes. Keep away from open flames, hot surfaces and sources of ignition.
- Advice on protection against fire and explosion : No special protective measures against fire required.

#### Storage

- Requirements for storage areas and containers : Store in original container. Keep tightly closed in a dry and cool place. Keep away from direct insolation and heating sources.
- Incompatibilities/not to be stored with : Do not mix with other immersion liquids. Do not store together with food. Keep away from incompatible material. (see section 10).

#### Storage stability

- Storage temperature : 18 - 28 °C



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**8. Exposure controls / personal protection**

**Exposure limit(s)**

Note : None.

**Occupational exposure controls**

Protective measures : Take off all contaminated clothing immediately. Wash hands before breaks and at the end of workday. Preventive skin protection When using, do not eat, drink or smoke.  
Respiratory protection : Not required; except in case of aerosol formation.  
Hand protection : Not required. Avoid long and intense contact with the skin  
Eye protection : Avoid contact with eyes.

**Environmental exposure controls**

Additional advice : see section 6

**9. Physical and chemical properties**

**General Information**

Form : liquid  
Colour : colourless  
Odour : odorless

**Important Health Safety and Environmental Information**

Boiling point/boiling range : > 250 °C  
Flash point : does not flash  
Density : 1,674 g/cm<sup>3</sup> at 20 °C (DIN 51757)  
Water solubility : insoluble  
Viscosity, kinematic : 1.020 mm<sup>2</sup>/s at 20 °C (DIN 51562)  
Viscosity, kinematic : 820 mm<sup>2</sup>/s at 23 °C (DIN 51562)  
Viscosity, kinematic : 320 mm<sup>2</sup>/s at 37 °C (DIN 51562)

**10. Stability and reactivity**

Thermal decomposition : > 250 °C  
Hazardous reactions : None known.  
No decomposition if stored and applied as directed.  
Conditions to avoid : To avoid thermal decomposition, do not overheat. Keep away from flames, sparks and hot surfaces.  
Materials to avoid : > 100 °C, Lewis acids, magnesium powder, aluminium powder



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Hazardous decomposition products : toxic and corrosive gases, Hydrogen fluoride, Carbonyl difluoride  
Additional advice : Metals promote decomposition and reduce decomposition temperature.

## 11. Toxicological information

### Toxicology tests

Skin irritation : Decomposition product(s) may cause severe irritation of eyes, skin and mucous membranes.

### General Information

Other information on toxicity : No data is available on the product itself. The product should be handled with the care usual when dealing with chemicals.

## 12. Ecological information

### Persistence and degradability

Biological degradability : Not readily biodegradable.

### 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. Offer rinsed packaging material to local recycling facilities.

## 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.



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**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) <sup>1</sup>**

Exempt

For footnotes, see section 16.

**Labelling according to Directive 67/548/EEC or Directive 1999/45/EC <sup>2</sup>**

Not applicable.

For footnotes, see section 16.

**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.

**Additional advice**

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

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.