

SAFETY DATA SHEET

according to EC directive 91/155/EC



Version 1.1

Immersol W

Material: 000000-0450-281

Revision date: 28.01.2004

print date: 11.04.2008

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

Trade name : Immersol W

Manufacturer/supplier : Carl Zeiss
Address : Carl-Zeiss-Straße 22
D-73447 Oberkochen

Telephone : +49(0)7364/20-0

Contact for information : Forschung & Technologie; Technologie Chemie (FT-TC)
Telephone : +49(0)7364/20-4599
Telefax : +49(0)7364/20-4521
:

Emergency telephone : Poisening Control Center
number : +49(0)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

Derivative(s) of perfluorinepolyether.

Synonyms :

CAS-No. :

EC-No. :

INDEX No. :

Hazardous components

| Description | Number | Concentration | Symbol(s) | R-phrase(s) |
|--|-------------------------|----------------|-----------|-------------|
| Dihydroxypropanoxy-methyl derivative of perfluoropolyoxycane | CAS: 156559-18-1 EC: | 50,00 - 60,00% | | R52/53 |

3. Hazards identification

Classification

Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

4. First aid measures

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

Inhalation : Not applicable.

Skin contact : Wash off with soap and water. Use re-greasing skin cream.

Eye contact : Flush eye(s) immediately 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.

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5. Fire-fighting measures

- Suitable extinguishing media : The product itself does not burn., 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.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Other data : 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. 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 : The product is not flammable. 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 store together with food. Keep away from incompatible material. (see heading 10).

8. Exposure controls / personal protection

Exposure limit(s)

| Components | CAS-No. | Value | Basis | Concentration |
|-------------------|-----------|---|-------|---------------|
| Hydrogen fluoride | 7664-39-3 | 3 ml/m ³ 2,5 mg/m ³ | MAK | % |

- Note : decomposition product
- Hydrogen fluoride : top-limit category =1= skin-resorption

Occupational exposure controls

- Protective measures : Take off all contaminated clothing immediately. Wash hands

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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.

9. Physical and chemical properties

General Information

Form : liquid
Colour : colourless
Odour : odorless

Important Health Safety and Environmental Information

Boiling point/range : > 250 °C
Flash point : does not flash
Density : 1,7 g/cm³ at 20 °C (DIN 51757)
Water solubility : insoluble
Viscosity, kinematic : 635 mm²/s at 20 °C (DIN 51562)
Viscosity, kinematic : 190 mm²/s at 40 °C (DIN 51562)

10. Stability and reactivity

Thermal decomposition : > 200 °C
Hazardous reactions : None known
No decomposition if stored and applied as directed.
Conditions to avoid : Strong heating.
Materials to avoid : strong bases, > 100 °C, Lewis acids, magnesium powder, aluminium powder, and their alloys
Hazardous decomposition products : toxic and corrosive gases, Hydrogen fluoride, Carbonyl difluoride

11. Toxicological information

Acute oral toxicity : LD50 rat > 2.000 mg/kg
Skin irritation : rabbit
Result: No skin irritation
Skin irritation : Decomposition product(s) may cause severe irritation of eyes, skin and mucous membranes.
Eye irritation : rabbit
Result: No eye irritation
Sensitization : guinea-pig
Result: Not sensitizing.
Mutagenic effect : Not mutagenic in AMES Test.
Other information on toxicity : The preparation itself is not examined. The data refer to the specifications of the ingredients. Handle in accordance with good industrial hygiene and safety practice.

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12. Ecological information

Persistence and degradability

Biological degradability : Not readily biodegradable.

Further Information

Other data : The preparation itself is not examined. The data refer to the specifications of the ingredients. 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

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

None

Hazardous components which must be listed on the label:

R-phrases

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

S-phrases

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

EC-No. :

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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.

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Text of R phrases mentioned in Section 2

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