

Safety Data Sheet

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

FluoSurf™ O in NOVEC™ 7500

1.2 Relevant identified uses of the substance or mixture and uses advised against

Laboratory Chemical

1.3 Details of the supplier of the safety data sheet

Emulseo
 Cheminnov - 14 avenue Pey Berland
 33600 Pessac
 France
 contact@emulseo.com

1.4 Emergency telephone number

In case of emergency: +33(0) 5 35 54 10 06

Section 2: Hazards identification

2.1 Classification of the substances or mixture

Classification according to regulation (EC) no. 1272/2008 [CLP/GHS]
 Chronic Aquatic Toxicity: Category 4

2.2 Label elements

H413: May cause long lasting harmful effects to aquatic life
 P501: Dispose of contents/container in accordance with applicable local/regional/national/international regulation

2.3 Other hazards

No known hazards. However, the product must be used in accordance with instructions for use

Section 3: Composition

3.1 Substances

Not Applicable – product is a mixture

3.2 Mixtures

| Product | Classification | Composition |
|--|----------------|-------------------|
| Type: polyhexafluoropropylene oxide- <i>block</i> -polypropylene glycol- <i>block</i> -polyethylene glycol- <i>block</i> - polypropylene glycol- <i>block</i> -polyhexafluoropropylene oxide | | |
| N° CAS: None | Not Applicable | 1-5 % in weight |
| 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-trifluoromethyl-hexane | | |
| N° CAS: 297730-93-9 | Not Applicable | 95-99 % in weight |

Section 4: First aid measures

4.1 Description of the first aid measures

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Seek medical attention if irritation arises.

INHALATION: Solvent is non-volatile liquid, and of low viscosity. Solvent not classified Aspiration Toxic. If spray is inhaled, seek medical advice if any discomfort.

SKIN CONTACT: Wash with soap and water. If irritation or rash develops, seek medical attention.

INGESTION: If swallowed, **DO NOT INDUCE VOMITING**. May enter airways. Rinse mouth with water and drink cup of water. If continued discomfort, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

INGESTION: No known symptoms

INHALATION: No known symptoms

EYES: Discomfort if first aid not administered

SKIN: Mild discomfort and possible reaction such as itching or redness

4.3 Indication of any immediate medical attention and special treatments needed

Dilute affects area. No special medical treatment needed

Section 5: Firefight measures

5.1 Extinguishing media

Product will not support combustion

Carbon dioxide, water spray, dry chemical for small fires, foam or water spray for large fires (>10 litres)

5.2 Special hazards arising from substances or mixture

None

5.3 Advice for fire fighters

No special precautions

Section 6: Accidental releases measures

6.1 Personal precautions, precaution equipment and emergency procedures

For spillage of bulk material or quantities > 1 litre, gloves resistant to fluorinated solvents and eye protection recommended. Avoid skin contact.

6.2 Environmental precautions

No special precautions. Avoid release to surface water

6.3 Methods and materials for containment and clearing up

SMALL SPILLS (under 1 litre): Use absorbent material and place in a suitable container for disposal. Wash area with water and detergent.

LARGE SPILLS: (more than 1 litre): Use appropriate containment to avoid contamination of surrounding area.

6.4 References to other sections

See section 8 for further advice on protective equipment section and section 13 for further advice on disposal.

Section 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with eye and skin.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed when not in use. For professional use only.

7.3 Specific end uses

Use only as directed as a laboratory chemical

Section 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No exposure limits

8.2 Exposure controls

Engineering controls

Avoid contact with skin, eyes and clothing. Normal room ventilation is adequate

Respiratory protection

Not required for normal handling

Hand protection

Wear gloves suitable for fluorinated solvent. The gloves must be inspected prior to use.

Eye protection

Tightly fitting safety goggles

Skin protection

Handle with gloves resistant to fluorinated solvent

General hygiene considerations

Wash hands before breaks and immediately after handling the product.

Environmental exposure controls

Precautions should be taken to avoid accidental release of material to water courses.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) Appearance Form: clear, Pale liquid
- b) Odour : None
- c) Odour Threshold No data available
- d) pH No data available
- e) Melting point/freezing point Melting point/range: -100°C
- f) Initial boiling point and boiling range: 129°C
- g) Flash point No data available

- h) Evaporation rate No data available
- i) Flammability (solid, gas) No data available
- j) Upper/lower flammability or explosive limits Upper explosion limit: No data available
- k) Vapour pressure 2.1 kPa (@25°C)
- l) Vapour density Approximately 14.3
- m) Relative density 1.63 g/mL
- n) Water solubility < 0.004 ppm
- o) Partition coefficient: No data available
- p) Auto-ignition temperature No data available
- q) Decomposition temperature No data available
- r) Viscosity No data available
- s) Explosive properties No data available
- t) Oxidizing properties No data available

9.2 Other information

None

Section 10: Stability and reactivity

10.1 Reactivity

Functionally inert

10.2 Chemical Stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

Hazardous reaction will not occur.

10.4 Conditions to avoid

No special precautions

10.5 Incompatible materials

None known

10.6 Hazardous decomposition products

None known

Section 11: Toxicology information

11.1 Information on toxicological effects

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) **acute toxicity** Estimated to be of low acute toxicity. Not classified.

(b) **skin corrosion/irritation** Estimated to be slightly irritant to skin, but not classified.

(c) **serious eye damage/irritation** Estimated to be slightly irritant to eyes, but not classified.

(d) **respiratory/skin sensitisation** Not considered to be a potential skin sensitiser. Product not tested.

(e) **germ cell mutagenicity** This chemical class is not known to be mutagenic.

(f) **carcinogenicity** This chemical class is not known a carcinogen by IARC or U.S. ACGIH, NTP or OSHA.

(g) **reproductive toxicity** This chemical class is not known to be toxic for reproduction

- (h) **STOT-single exposure** This chemical class is not considered hazardous to organs
- (i) **STOT-repeated exposure** This chemical class is not considered hazardous to organs.
- (j) **aspiration hazard** The solvents are of low viscosity, but not classified by supplier as Aspiration Toxic

Section 12: Ecological information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1 Toxicity

Acute aquatic hazard:

Not acute toxic to aquatic life by GHS criteria

Chronic aquatic hazard!

GHS Chronic 4: May cause long lasting harmful effects to aquatic organisms.

12.2 Persistence and degradability

Not considered to be biodegradable. Will persist.

12.3 Bioaccumulative potential

Not considered to be potentially bioaccumulative due to high molecular weight.

12.4 Mobility in soil

The product will not be mobile in the environment due to high molecular weight and low water solubility.

12.5 Results of PBT and vPvB assessment

The product is predicted to be persistent. It is not predicted to be bioaccumulate or toxic.

12.6 Other adverse effect

None

Section 13: Disposal consideration

13.1 Waste treatment methods

Recover and recycle product if possible. If recovery and recycling are not possible disposal to waste water treatment may be possible if in accordance with local regulations.

Section 14: Transport information

14.1 Transport information

Not classified as dangerous goods, no labelling for transport is required

| | ADR | IMDG | ICAO |
|---|----------------|----------------|----------------|
| 14.1 UN Number | Not applicable | Not applicable | Not applicable |
| 14.2 UN proper shipping name | Not applicable | Not applicable | Not applicable |
| 14.3 Transport hazard class(es) | Not applicable | Not applicable | Not applicable |
| 14.4 Packing group | Not applicable | Not applicable | Not applicable |
| 14.5 Environmental hazards | Not applicable | Not applicable | Not applicable |
| 14.6 Special precautions for user | Not applicable | Not applicable | Not applicable |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable | Not applicable | Not applicable |

Section 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substances or mixture

No specific legislation

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out for this product. Chemical safety assessment has been performed on some of the components and no concerns noted in respect to the intended use of this product.

Section 16: Other information

16.1 Revision information

This is a new SDS

16.2 List of abbreviations used in the SDS

CAS Chemical Abstracts Service
 CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
 DSD Dangerous Substances Directive 67/548/EEC
 DPD Dangerous Preparations Directive 1999/45/EC EC European Commission
 PBT Persistent, Bioaccumulative and Toxic
 REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC)
 no 1907/2006
 vPvB very Persistent, very Bioaccumulative

16.3 References

Source: European Chemical Agency, <http://echa.europa.eu/>

16.4 Method used for classification

Consideration of starting reagents

16.5 R Phrases and H Statements used in section 2 and/or 3

16.6 Training requirements for workers

No special training requirements. For professional use only

NB: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.