

# Safety Data Sheet

acc. to OSHA HCS

Printing date 05/17/2022

Reviewed on 05/17/2022

## 1 Identification

- **Product identifier**
- **Trade name:** Immersion Oil Type LDF
- **Article number:** 16919, 16919-16, 16919-01
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS07

Acute Toxicity - Dermal 4 H312 Harmful in contact with skin.  
 Skin Irritation 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
POLYBUTENE
- **Hazard statements**  
 Harmful in contact with skin.  
 Causes skin irritation.
- **Precautionary statements**  
 Wash thoroughly after handling.  
 Wear protective gloves / protective clothing.  
 If on skin: Wash with plenty of water.  
 Call a poison center/doctor if you feel unwell.  
 Specific treatment (see on this label).  
 Take off contaminated clothing and wash it before reuse.  
 If skin irritation occurs: Get medical advice/attention.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

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Trade name: Immersion Oil Type LDF

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- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.

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- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

None of the ingredients is listed.

· **PAC-2:**

None of the ingredients is listed.

· **PAC-3:**

None of the ingredients is listed.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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### · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

### · Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

### · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

#### · Appearance:

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Weak, characteristic
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

#### · Change in condition

<b>Melting point/Melting range:</b>	<-16 °C (<3.2 °F)
<b>Boiling point/Boiling range:</b>	>279 °C (>534.2 °F)

· **Flash point:** 171 °C (339.8 °F)

· **Flammability (solid, gaseous):** Not flammable.

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

#### · Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 0.984 g/cm<sup>3</sup> (8.21148 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

#### · Solubility in / Miscibility with

**Water:** Not miscible or difficult to mix.

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- |                                                                   |                                            |
|-------------------------------------------------------------------|--------------------------------------------|
| <b>· Partition coefficient (n-octanol/water):</b> Not determined. |                                            |
| <b>· Viscosity:</b>                                               |                                            |
| <b>Dynamic at 20 °C (68 °F):</b>                                  | 492 mPas                                   |
| <b>Kinematic at 40 °C (104 °F):</b>                               | > 20.5 mm <sup>2</sup> /s                  |
| <b>· Solvent content:</b>                                         |                                            |
| <b>VOC content:</b>                                               | 0.00 %<br>0.0 g/l / 0.00 lb/gal            |
| <b>Solids content:</b>                                            | 0.0 %                                      |
| <b>· Other information</b>                                        | No further relevant information available. |

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
- **Carcinogenic categories**

<b>· IARC (International Agency for Research on Cancer)</b>
-------------------------------------------------------------

None of the ingredients is listed.
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<b>· NTP (National Toxicology Program)</b>
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None of the ingredients is listed.
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<b>· OSHA-Ca (Occupational Safety Health Administration)</b>
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None of the ingredients is listed.
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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.

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- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

· <b>UN-Number</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>UN proper shipping name</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, ADN, IMDG, IATA</b>	
· <b>Class</b>	Void
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	Void
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	Void

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.
- **Sara**

· <b>Section 355 (extremely hazardous substances):</b>
None of the ingredients is listed.
· <b>Section 313 (Specific toxic chemical listings):</b>
None of the ingredients is listed.

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· **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard-determining components of labeling:**

POLYBUTENE

· **Hazard statements**

Harmful in contact with skin.

Causes skin irritation.

· **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves / protective clothing.

If on skin: Wash with plenty of water.

Call a poison center/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Contact:**

· **Date of preparation / last revision** 05/17/2022 / -

· **Abbreviations and acronyms:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety **Health***

***TLV: Threshold Limit Value***

***PEL: Permissible Exposure Limit***

***REL: Recommended Exposure Limit***

***Acute Toxicity - Dermal 4: Acute toxicity – Category 4***

***Skin Irritation 2: Skin corrosion/irritation – Category 2***



# Safety Data Sheet

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Revision: 17.05.2022

### 1 Identification

- **Product identifier**
- **Trade name:** Immersion Oil Type LDF
- **Article number:** 16919, 16919-16, 16919-01
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- ProSciTech Pty Ltd  
11 Carlton Street, Kirwan QLD 4817 Australia  
Telephone Number: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Emergency Contact: (07) 4773 9444 - 8:30am - 5:00pm, Monday to Friday (excluding Public Holidays)  
Website: [ems.proscitech.com](http://ems.proscitech.com)
- Emgrid Australia Pty. Ltd.  
P.O. Box 118  
The Patch VIC 3792  
Australia  
Tel: 03 9752 1785  
Fax: 03 9752 1784  
Website: [www.emgrid.com.au](http://www.emgrid.com.au)
- **Further information obtainable from:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 Hazard(s) Identification

- **Classification of the substance or mixture**



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.  
Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning

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**Trade name: Immersion Oil Type LDF**

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- **Hazard-determining components of labelling:**

POLYBUTENE

- **Hazard statements**

Harmful in contact with skin.

Causes skin irritation.

- **Precautionary statements**

Wash thoroughly after handling.

Wear protective gloves / protective clothing.

IF ON SKIN: Wash with plenty of water.

Call a POISON CENTER/doctor if you feel unwell.

Specific treatment (see on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition and Information on Ingredients

- **Chemical characterisation: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:** Void

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First Aid Measures

- **Description of first aid measures**

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact:** Rinse opened eye for several minutes under running water.

- **After swallowing:** If symptoms persist consult doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire Fighting Measures

- **Extinguishing media**

- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

- **Special hazards arising from the substance or mixture** No further relevant information available.

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**Trade name: Immersion Oil Type LDF**

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

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Trade name: *Immersion Oil Type LDF*

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· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Goggles recommended during refilling

## 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

<b>Form:</b>	Liquid
<b>Colour:</b>	Light yellow
<b>Odour:</b>	Weak, characteristic
<b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/freezing point:</b>	<-16 °C
<b>Initial boiling point and boiling range:</b>	>279 °C

· **Flash point:** 171 °C

· **Flammability (solid, gas):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapour pressure:** Not determined.

· **Density at 20 °C:** 0.984 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

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· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic at 20 °C:</b>	492 mPas
<b>Kinematic at 40 °C:</b>	>20.5 mm <sup>2</sup> /s
· <b>Solvent content:</b>	
<b>VOC (EC)</b>	0.00 %
· <b>Solids content:</b>	0.0 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** No irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Irritant

### 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Trade name: *Immersion Oil Type LDF*

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· **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>UN proper shipping name</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>Transport hazard class(es)</b>	
· <b>ADG, ADN, IMDG, IATA</b>	
· <b>Class</b>	not regulated
· <b>Packing group</b>	
· <b>ADG, IMDG, IATA</b>	not regulated
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Not applicable.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>UN "Model Regulation":</b>	not regulated

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· <b>Australian Inventory of Industrial Chemicals</b>
None of the ingredients is listed.

· <b>Standard for the Uniform Scheduling of Medicines and Poisons</b>
None of the ingredients is listed.

· <b>Australia: Priority Existing Chemicals</b>
None of the ingredients is listed.

- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms**



GHS07

(Contd. on page 7)

-AU-

# Safety Data Sheet

## according to WHS Regulations

Printing date 17.05.2022

Revision: 17.05.2022

**Trade name: Immersion Oil Type LDF**

(Contd. of page 6)

- **Signal word** *Warning*
- **Hazard-determining components of labelling:**  
*POLYBUTENE*
- **Hazard statements**  
*Harmful in contact with skin.*  
*Causes skin irritation.*
- **Precautionary statements**  
*Wash thoroughly after handling.*  
*Wear protective gloves / protective clothing.*  
*IF ON SKIN: Wash with plenty of water.*  
*Call a POISON CENTER/doctor if you feel unwell.*  
*Specific treatment (see on this label).*  
*Take off contaminated clothing and wash it before reuse.*  
*If skin irritation occurs: Get medical advice/attention.*  
*Store in a well-ventilated place. Keep container tightly closed.*  
*Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

- **Contact:**
- **Abbreviations and acronyms:**  
*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*  
*IMDG: International Maritime Code for Dangerous Goods*  
*IATA: International Air Transport Association*  
*EINECS: European Inventory of Existing Commercial Chemical Substances*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Acute Tox. 4: Acute toxicity – Category 4*  
*Skin Irrit. 2: Skin corrosion/irritation – Category 2*

AU

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

### 1 Identification

- **Product identifier**
- **Trade name:** Immersion Oil Type LDF
- **Article number:** 16919, 16919-16, 16919-01
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgkcck@aol.com  
 www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
 ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887

### 2 Hazard identification

- **Classification of the substance or mixture**



GHS07

Acute Toxicity (Dermal) – Category 4 H312 Harmful in contact with skin.  
 Skin Irritation - Category 2 H315 Causes skin irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**  
 Harmful in contact with skin.  
 Causes skin irritation.
- **Precautionary statements**  
 Wash thoroughly after handling.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If on skin: Wash with plenty of water.  
 Call a poison center/doctor if you feel unwell.  
 Take off contaminated clothing and wash it before reuse.  
 Specific measures (see on this label).  
 If skin irritation occurs: Get medical advice/attention.  
 Take off immediately all contaminated clothing.  
 Wash contaminated clothing before reuse.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)



# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: Immersion Oil Type LDF

(Contd. of page 1)

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



### 3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void

### 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

(Contd. on page 3)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: Immersion Oil Type LDF

(Contd. of page 2)

- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: Immersion Oil Type LDF

(Contd. of page 3)

- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
<b>Odor:</b>	Weak, characteristic
<b>Odor threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

<b>Melting point/Melting range:</b>	<-16 °C
<b>Boiling point/Boiling range:</b>	>279 °C

- **Flash point:** 171 °C

- **Flammability (solid, gaseous):** Not flammable.

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

- **Vapor pressure:** Not determined.

<b>Density at 20 °C:</b>	0.984 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.

- **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

<b>Dynamic at 20 °C:</b>	492 mPas
<b>Kinematic at 40 °C:</b>	>20.5 mm <sup>2</sup> /s

- **Solvent content:**

**Solids content:** 0.0 %

- **Other information**

No further relevant information available.

CA

(Contd. on page 5)

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: *Immersion Oil Type LDF*

(Contd. of page 4)

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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## Safety Data Sheet

according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: Immersion Oil Type LDF

(Contd. of page 5)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **UN-Number**  
· DOT/TDG, ADR, IMDG, IATA                      Void
- **UN proper shipping name**  
· DOT/TDG, ADR, IMDG, IATA                      Void
- **Transport hazard class(es)**  
· DOT, ADR, ADN, IMDG, IATA  
· Class                                                      Void
- **Packing group**  
· DOT/TDG, ADR, IMDG, IATA                      Void
- **Environmental hazards:**                              Not applicable.
- **Special precautions for user**                              Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**                      Not applicable.
- **UN "Model Regulation":**                              Void

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

None of the ingredients is listed.

- **Canadian substance listings:**

- **Canadian Domestic Substances List (DSL)**

None of the ingredients is listed.

- **Canadian Non-Domestic Substances List (NDSL)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 05/17/2022

Reviewed on 05/17/2022

Trade name: Immersion Oil Type LDF

(Contd. of page 6)

· **Hazard pictograms**

GHS07

· **Signal word** *Warning*· **Hazard statements***Harmful in contact with skin.**Causes skin irritation.*· **Precautionary statements***Wash thoroughly after handling.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin: Wash with plenty of water.**Call a poison center/doctor if you feel unwell.**Take off contaminated clothing and wash it before reuse.**Specific measures (see on this label).**If skin irritation occurs: Get medical advice/attention.**Take off immediately all contaminated clothing.**Wash contaminated clothing before reuse.**Store in a well-ventilated place. Keep container tightly closed.**Dispose of contents/container in accordance with local/regional/national/international regulations.*· **Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

### 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Contact:**· **Date of the latest revision of the safety data sheet** 05/17/2022 / -· **Abbreviations and acronyms:***IMDG: International Maritime Code for Dangerous Goods**DOT: US Department of Transportation**IATA: International Air Transport Association**EINECS: European Inventory of Existing Commercial Chemical Substances**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**NFPA: National Fire Protection Association (USA)**HMIS: Hazardous Materials Identification System (USA)**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative*

CA

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:** Immersion Oil Type LDF
- **Article number:** 16919, 16919-16, 16919-01
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Further information obtainable from:** Product safety department
- **1.4 Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Acute Tox. 4 H312 Harmful in contact with skin.  
Skin Irrit. 2 H315 Causes skin irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard statements**  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.
- **Precautionary statements**  
P280 Wear protective gloves / protective clothing.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P321 Specific treatment (see on this label).  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

Trade name: *Immersion Oil Type LDF*

(Contd. of page 1)

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

GB

(Contd. on page 3)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

Trade name: Immersion Oil Type LDF

(Contd. of page 2)

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
*Ensure good ventilation/exhaustion at the workplace.  
 Prevent formation of aerosols.*
- **Information about fire - and explosion protection:** *No special measures required.*
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *None.*
- **7.3 Specific end use(s)** *No further relevant information available.*

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** *No further data; see item 7.*
- **Ingredients with limit values that require monitoring at the workplace:**  
*The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.*
- **Additional information:** *The lists valid during the making were used as basis.*
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
*Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the skin.  
 Avoid contact with the eyes and skin.*
- **Respiratory protection:**  
*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.*
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*
- **Material of gloves**  
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.*
  - **Penetration time of glove material**  
*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

(Contd. on page 4)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

Trade name: Immersion Oil Type LDF

(Contd. of page 3)

· **Eye protection:** Goggles recommended during refilling

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Light yellow
· <b>Odour:</b>	Weak, characteristic
· <b>Odour threshold:</b>	Not determined.

· <b>pH-value:</b>	Not determined.
--------------------	-----------------

##### · Change in condition

· <b>Melting point/freezing point:</b>	<-16 °C
· <b>Initial boiling point and boiling range:</b>	>279 °C

· <b>Flash point:</b>	171 °C
-----------------------	--------

· <b>Flammability (solid, gas):</b>	Not applicable.
-------------------------------------	-----------------

· <b>Decomposition temperature:</b>	Not determined.
-------------------------------------	-----------------

· <b>Auto-ignition temperature:</b>	Product is not selfigniting.
-------------------------------------	------------------------------

· <b>Explosive properties:</b>	Product does not present an explosion hazard.
--------------------------------	-----------------------------------------------

##### · Explosion limits:

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· <b>Vapour pressure:</b>	Not determined.
---------------------------	-----------------

· <b>Density at 20 °C:</b>	0.984 g/cm <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.

· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
--------------------------------------------------	-----------------------------------

· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
--------------------------------------------------	-----------------

##### · Viscosity:

· <b>Dynamic at 20 °C:</b>	492 mPas
· <b>Kinematic at 40 °C:</b>	>20.5 mm <sup>2</sup> /s

##### · Solvent content:

· <b>VOC (EC)</b>	0.00 %
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· <b>Solids content:</b>	0.0 %
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· <b>9.2 Other information</b>	No further relevant information available.
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### SECTION 10: Stability and reactivity

· <b>10.1 Reactivity</b>	No further relevant information available.
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(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

Trade name: Immersion Oil Type LDF

(Contd. of page 4)

- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful in contact with skin.
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Not known to be hazardous to water.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

GB

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 17.05.2022

Revision: 17.05.2022

Trade name: Immersion Oil Type LDF

(Contd. of page 5)

### SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	not regulated
· 14.2 UN proper shipping name · ADR, IMDG, IATA	not regulated
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	not regulated
· 14.4 Packing group · ADR, IMDG, IATA	not regulated
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.17

在 2022.05.17 审核

### 1 化学品及企业标识

- 产品识别者
- 化学品中文(英文)名称, 化学品俗名或商品名: **Immersion Oil Type LDF**
- 商品编号: 16919, 16919-16, 16919-01
- 相应纯物质或者混合物的相关下位用途及禁止用途 无相关详细资料。
- 物质或混合物的用途 实验室化学物
- 安全技术说明书内供应商详细信息
- 企业名称:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- 可获取更多资料的部门: Product safety department
- 紧急联系电话号码:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### 2 危险性概述

- 紧急情况概述:  
浅黄色, 液体, 皮肤接触可能有害。造成皮肤刺激。

- GHS危险性类别



皮肤腐蚀/刺激 第2类 H315 造成皮肤刺激

急性毒性(经皮肤) 第5类 H313 皮肤接触可能有害

- 标签要素
- GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。
- 象形图



GHS07

- 警示词 警告
- 标签上辨别危险的成份:  
聚丁烯
- 危险性说明  
皮肤接触可能有害  
造成皮肤刺激
- 防范说明
- 预防措施  
戴防护手套/穿防护服/戴防护眼罩/戴防护面具
- 事故响应  
如感觉不适,呼叫急救中心/医生  
具体治疗(见本标签上的)  
脱掉沾染的衣服,清洗后方可重新使用

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.17

在 2022.05.17 审核

化学品中文(英文)名称, 化学品俗名或商品名: Immersion Oil Type LDF

(在 1 页继续)

- **安全储存**  
存放在通风良好的地方。保持容器密闭
- **废弃处置**  
处置内装物/容器按照地方/区域/国家/国际规章
- **其他有害性**
- **PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果**
- **PBT(残留性、生物浓缩性、毒性物质) 不适用的**
- **vPvB(高残留性、高生物浓缩性物质): 不适用的**

### 3 成分/组成信息

- **混合物**
- **描述:** 由以下含有无害添加剂的成分组成的混合物
- **危险的成分:** 无效

### 4 急救措施

- **应急措施要领**
- **总说明:** 中毒的症状可能会在几个小时以后才出现;因此在发生事故之后起码要有 48 小时的医疗观察。
- **吸入:** 万一病人不清醒时,请让病人侧躺以便移动。
- **皮肤接触:** 马上用水和肥皂进行彻底的冲洗。
- **眼睛接触:** 张开眼睛在流水下冲洗数分钟。
- **食入:** 如果症状仍然持续,请咨询医生。
- **给医生的资料:**
- **最重要的急慢性症状及其影响** 无相关详细资料。
- **需要及时的医疗处理及特别处理的症状** 无相关详细资料。

### 5 消防措施

- **灭火方法**
- **灭火的方法和灭火剂:** 使用适合四周环境的灭火措施。
- **特别危险性** 无相关详细资料。
- **特殊灭火方法**
- **消防人员特殊的防护装备:** 没有要求特别的措施。

### 6 泄漏应急处理

- **保护措施** 没有要求。
- **环境保护措施:** 没有要求特别的措施。
- **密封及净化方法和材料:**  
吸收液体粘合原料 (沙粒、硅藻土、酸性粘合剂、通用粘合剂、锯屑)。  
根据第 13 条条款弃置受污染物。  
确保有足够的通风装置。
- **参照其他部分**  
有关安全处理的资料请参阅第 7 节。  
有关个人防护装备的资料请参阅第 8 节。  
有关弃置的资料请参阅第 13 节。

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.17

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### 7 操作处置与储存

- **操作处置**
- **储存**  
确保工作间有良好的通风/排气装置。  
防止气溶胶的形成。
- **有关火灾及防止爆炸的资料**: 不需特别的措施。
- **混合危险性等安全储存条件**
- **储存**:  
· **储存库和容器须要达到的要求**: 没有特别的要求。  
· **有关使用一个普通的储存设施来储存的资料**: 不需要。  
· **有关储存条件的更多资料**: 没有。  
· **具体的最终用户** 无相关详细资料。

### 8 接触控制和个体防护

- **工程控制方法**: 没有进一步数据; 见第 7 项。
- **控制变数**
- **在工作场需要监控的限值成分** 该产品不含任何必须在工作间受到监视的重要价值的材料。
- **额外的资料**: 制作期间有效的清单将作为基础来使用。
- **泄漏控制**
- **个人防护设备**:  
· **一般保护和卫生措施**:  
远离食品、饮料和饲料。  
立即除去所有的不洁的和被污染的衣服。  
在休息之前和工作完毕后请清洗双手。  
避免和皮肤接触。  
避免和眼睛及皮肤接触。
- **呼吸系统防护**:  
如果曾短暂接触或在低污染的情况下 , 请使用呼吸过滤装置  
如果曾深入或较长时间接触, 请使用独立的呼吸保护装置。
- **手防护**:



保护手套

手套的物料必须是不渗透性的, 且能抵抗该产品/物质/添加剂。

基于缺乏测试, 对于产品/制剂/化学混合物, 并不会提供手套材料的建议

选择手套材料时, 请注意材料的渗透时间, 渗滤率和降解参数

#### · 手套材料

选择合适的手套不单取决于材料 , 亦取决于质量特征 , 以及来自哪一间生产厂家 , 因为该产品是由很多材料配制而成, 手套材料的抵抗力并不可预计, 所以, 必须在使用之前进行检查

· **渗入手套材料的时间** 请向劳保手套生产厂家获取准确的破裂时间并观察实际的破裂时间

· **眼睛防护**: 补充期间建议使用的护目镜

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

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化学品中文(英文)名称, 化学品俗名或商品名: Immersion Oil Type LDF

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### 9 理化特性

· 有关基本物理及化学特性的信息	
· 一般说明	
· 外观:	
形状:	液体
颜色:	浅黄色
· 气味:	弱的、有特性的
· 嗅觉阈限	未决定.
· pH值:	未决定.
· 条件的更改	
熔点:	<-16 °C
沸点/初沸点和沸程:	>279 °C
· 闪点:	171 °C
· 可燃性 (固体、气体):	不适用的
· 分解温度:	未决定.
· 自燃温度:	该产品是不自燃的
· 爆炸的危险性:	该产品并没有爆炸的危险
· 爆炸极限:	
较低:	未决定.
较高:	未决定.
· 蒸气压:	未决定.
· 密度 在 20 °C:	0.984 g/cm <sup>3</sup>
· 相对密度	未决定.
· 蒸气密度	未决定.
· 蒸发速率	未决定.
· 溶解性	
水:	不能拌和的或难以拌和
· n-辛醇/水分配系数:	未决定.
· 黏性:	
动态 在 20 °C:	492 mPas
运动学的 在 40 °C:	>20.5 mm <sup>2</sup> /s
· 溶剂成份:	
固体成份:	0.0 %
· 其他信息	无相关详细资料。

### 10 稳定性和反应性

- 反应性 无相关详细资料。
- 稳定性
- 热分解/要避免的情况: 如果遵照规格使用则不会分解.
- 有害反应可能性 未有已知的危险反应.
- 应避免的条件 无相关详细资料。
- 不相容的物质: 无相关详细资料。

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# 化学品安全技术说明书

## 根据 GB/T 16483-2008, GB/T 17519-2013

打印日期 2022.05.17

在 2022.05.17 审核

化学品中文(英文)名称, 化学品俗名或商品名: Immersion Oil Type LDF

(在 4 页继续)

· 危险的分解产物: 未知有危险的分解产品.

### 11 毒理学信息

· 对毒性学影响的信息

· 急性毒性:

· 主要的刺激性影响:

· 皮肤: 刺激皮肤和粘膜.

· 在眼睛上面: 没有刺激的影响.

· 致敏作用: 没有已知的敏化影响.

· 更多毒物的资料:

根据有关配制的一般欧盟分类指南的计算方法(刊印在最新版本),该产品显示以下的危险:

有害的

刺激性的

### 12 生态学信息

· 生态毒性

· 水生毒性: 无相关详细资料。

· 持久性和降解性 无相关详细资料。

· 环境系统习性:

· 潜在的生物累积性 无相关详细资料。

· 土壤内移动性 无相关详细资料。

· 额外的生态学资料:

· 总括注解: 未知对水是否有危险。

· PBT(残留性、生物浓缩性、毒性物质) 及 vPvB(高残留性、高生物浓缩性物质)评价结果

· PBT(残留性、生物浓缩性、毒性物质) 不适用的

· vPvB(高残留性、高生物浓缩性物质): 不适用的

· 其他副作用 无相关详细资料。

### 13 废弃处置

· 废弃处置方法

· 建议: 不能将该产品和家居垃圾一起丢弃. 不要让该产品接触污水系统.

· 受污染的容器和包装:

· 建议: 必须根据官方的规章来丢弃.

### 14 运输信息

· 联合国危险货物编号(UN号)

· ADR, IMDG, IATA 无效

· UN适当装船名

· ADR, IMDG, IATA 无效

· 运输危险等级

· ADR, ADN, IMDG, IATA

· 级别 无效

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# 化学品安全技术说明书

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化学品中文(英文)名称, 化学品俗名或商品名: Immersion Oil Type LDF

(在 5 页继续)

· 包装组别	
· ADR, IMDG, IATA	无效
· 环境危害	不适用的
· 用户特别预防措施	不适用的
· MARPOL73/78(针对船舶引起的海洋污染预防协议)附件书2及根据IBC Code(国际装船货物编码)的大量运送	不适用的
· UN "标准规定":	无效

## 15 法规信息

- 对相应纯物质或者混合物的安全、保健及环境法规/法律 无相关详细资料。
- 危险化学品安全管理条例

### · 危险化学品目录

没有列出成份

- 化学品首次进口及有毒化学品进出口环境管理规定
- 新化学物质环境管理办法

### · 中国现有化学物质名录

没有列出成份

- GHS卷标元素 本产品根据化学物质分类及标记全球协调制度(GHS)进行了分类及标记。

### · 象形图



GHS07

- 警示词 警告

### · 标签上辨别危险的成份:

聚丁烯

### · 危险性说明

皮肤接触可能有害  
造成皮肤刺激

### · 防范说明

#### · 预防措施

戴防护手套/穿防护服/戴防护眼罩/戴防护面具

#### · 事故响应

如感觉不适,呼叫急救中心/医生  
具体治疗(见本标签上的)  
脱掉沾染的衣服,清洗后方可重新使用

#### · 安全储存

存放在通风良好的地方。保持容器密闭

#### · 废弃处置

处置内装物/容器按照地方/区域/国家/国际规章

- 化学物质安全性评价: 尚未进行化学物质安全性评价

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(在 7 页继续)

# 化学品安全技术说明书

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## 16 其他信息

该资料是基于我们目前的知识

然而,这并不构成对任何特定产品特性的担保并且不建立一个法律上有效的合同关系.

· 联络:

· 缩写:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: 持久性生物累积性有毒物质

vPvB: very Persistent and very Bioaccumulative

急性毒性(经皮肤) 第5类: Acute toxicity – Category 5

皮肤腐蚀/刺激 第2类: Skin corrosion/irritation – Category 2

CN

# Veiligheidsinformatieblad

volgens 1907/2006/EG, Artikel 31

datum van de druk: 17.05.2022

Herziening van: 17.05.2022

## RUBRIEK 1: Identificatie van de stof of het mengsel en van de vennootschap/onderneming

- **1.1 Productidentificatie**
- **Handelsnaam: Immersion Oil Type LDF**
- **Artikelnummer:** 16919, 16919-16, 16919-01
- **UFI:** 2Q12-Q0WM-900S-NC08
- **1.2 Relevant geïdentificeerd gebruik van de stof of het mengsel en ontraden gebruik**  
Geen verdere relevante informatie verkrijgbaar.
- **Toepassing van de stof / van de bereiding** Laboratoriumchemicaliën
- **1.3 Details betreffende de verstrekker van het veiligheidsinformatieblad**
- **Fabrikant/leverancier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Aurion**  
Binnenhaven 5  
6709 PD Wageningen  
The Netherlands  
Tel: 31 317 415094  
Fax: 31 317 415955  
email: info@aurion.nl
- **Inlichtingengevende sector:** Product safety department
- **1.4 Telefoonnummer voor noodgevallen:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## RUBRIEK 2: Identificatie van de gevaren

- **2.1 Indeling van de stof of het mengsel**
- **Indeling overeenkomstig Verordening (EG) nr. 1272/2008**



Acute Tox. 4 H312 Schadelijk bij contact met de huid.  
Skin Irrit. 2 H315 Veroorzaakt huidirritatie.

- **2.2 Etiketteringselementen**
- **Etikettering overeenkomstig Verordening (EG) nr. 1272/2008**  
Het product is geclassificeerd en geëtiketteerd volgens de CLP-verordening.
- **Gevarenpictogrammen**



- **Signaalwoord** Waarschuwing
- **Gevarenaanduidingen**  
H312 Schadelijk bij contact met de huid.  
H315 Veroorzaakt huidirritatie.

(Vervolg op blz. 2)

# Veiligheidsinformatieblad

## volgens 1907/2006/EG, Artikel 31

datum van de druk: 17.05.2022

Herziening van: 17.05.2022

Handelsnaam: Immersion Oil Type LDF

(Vervolg van blz. 1)

### · Veiligheidsaanbevelingen

- P280 Draag beschermende handschoenen/beschermende kleding.
- P312 Bij onwel voelen een ANTIGIFCENTRUM/arts raadplegen.
- P321 Specifieke behandeling vereist (zie op dit etiket).
- P362+P364 Verontreinigde kleding uittrekken en wassen alvorens deze opnieuw te gebruiken.
- P332+P313 Bij huidirritatie: een arts raadplegen.
- P501 De inhoud en de verpakking verwerken volgens de plaatselijke/regionale/nationale/internationale voorschriften.

### · 2.3 Andere gevaren

#### · Resultaten van PBT- en zPzB-beoordeling

- PBT: Niet bruikbaar.
- zPzB: Niet bruikbaar.

## RUBRIEK 3: Samenstelling en informatie over de bestanddelen

### · 3.2 Chemische karakterisering: Mengsels

- Beschrijving: Mengsel van na elkaar aangevoerde stoffen met ongevaarlijke bijmengingen.

- Gevaarlijke inhoudstoffen: Niet van toepassing

#### · Aanvullende gegevens:

De woordelijke inhoud van de opgegeven aanwijzingen inzake de mogelijke gevaren is te vinden in hoofdstuk 16.

## RUBRIEK 4: Eerstehulpmaatregelen

### · 4.1 Beschrijving van de eerstehulpmaatregelen

#### · Algemene informatie:

Het is mogelijk dat vergiftigingssymptomen pas na vele uren optreden. Om deze reden is medische controle gedurende minstens 48 uur na een ongeval noodzakelijk.

- Na het inademen: Bij bewusteloosheid ligging en vervoer in stabiele zijligging.
- Na huidcontact: Onmiddellijk met water en zeep afwassen en goed naspoelen.
- Na oogcontact: Ogen bij geopend ooglid meerdere minuten met stromend water spoelen
- Na inslikken: Als de klachten niet minderen, een arts raadplegen

### · 4.2 Belangrijkste acute en uitgestelde symptomen en effecten

Geen verdere relevante informatie verkrijgbaar.

### · 4.3 Vermelding van de vereiste onmiddellijke medische verzorging en speciale behandeling

Geen verdere relevante informatie verkrijgbaar.

## RUBRIEK 5: Brandbestrijdingsmaatregelen

### · 5.1 Blusmiddelen

- Geschikte blusmiddelen: Brandblusmaatregelen op omgeving afstemmen.

### · 5.2 Speciale gevaren die door de stof of het mengsel worden veroorzaakt

Geen verdere relevante informatie verkrijgbaar.

### · 5.3 Advies voor brandweertieners

- Speciale beschermende kleding: Geen bijzondere maatregelen nodig.

## RUBRIEK 6: Maatregelen bij het accidenteel vrijkomen van de stof of het mengsel

### · 6.1 Persoonlijke voorzorgsmaatregelen, beschermingsmiddelen en noodprocedures

Niet nodig.

### · 6.2 Milieuvoorzorgsmaatregelen: Geen speciale maatregelen noodzakelijk.

### · 6.3 Insluifings- en reinigingsmethoden en -materiaal:

Met vloeistofbindend materiaal (zand, bergmeel, zuurbinder, universele binder, zaagmeel) opnemen.

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Besmet materiaal zoals afval volgens punt 13 verwijderen.

Voor voldoende ventilatie zorgen.

· **6.4 Verwijzing naar andere rubrieken**

Informatie inzake veilig gebruik - zie hoofdstuk 7.

Informatie inzake persoonlijke beschermingsuitrusting - zie hoofdstuk 8.

Informatie inzake berging - zie hoofdstuk 13.

### RUBRIEK 7: Hantering en opslag

· **7.1 Voorzorgsmaatregelen voor het veilig hanteren van de stof of het mengsel**

Voor goede ventilatie/afzuiging op de werkplaatsen zorgen.

Aërosolvorming vermijden.

· **Informatie m.b.t. brand- en ontploffingsgevaar:** Geen bijzondere maatregelen noodzakelijk.

· **7.2 Voorwaarden voor een veilige opslag, met inbegrip van incompatibele producten**

· **Opslag:**

· **Eisen ten opzichte van opslagruimte en tanks:** Geen bijzondere eisen.

· **Informatie m.b.t. gezamenlijke opslag:** Niet noodzakelijk.

· **Verdere inlichtingen over eisen m.b.t. de opslag:** Geen.

· **7.3 Specifiek eindgebruik** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 8: Maatregelen ter beheersing van blootstelling/persoonlijke bescherming

· **8.1 Controleparameters**

· **Aanvullende gegevens m.b.t. de inrichting van technische installaties:** Geen aanvullende gegevens. Zie 7.

· **Bestanddelen met grenswaarden die m.b.t. de werkruimte in acht genomen moeten worden:**

Het product bevat geen relevante hoeveelheden van stoffen, die met betrekking tot de werkplaatsen, qua grenswaarden gecontroleerd moeten worden.

· **Aanvullende gegevens:** Als basis dienden lijsten die bij opstelling geldig waren.

· **8.2 Maatregelen ter beheersing van blootstelling**

· **Persoonlijke beschermingsvoorzieningen:**

· **Algemene beschermings- en gezondheidsmaatregelen:**

Verwijderd houden van eet- en drinkwaren.

Verontreinigde kleding onmiddellijk uittrekken.

Vóór de pauze en aan het einde van werktijd handen wassen.

Aanraking met de huid vermijden.

Aanraking met de ogen en de huid vermijden.

· **Ademhalingsbescherming:**

Bij korte of geringe belasting ademfiltertoestel; bij intensieve resp. langdurige expositie een van de omringende lucht onafhankelijk ademhalingsstoestel gebruiken.

· **Handbescherming:**



Veiligheidshandschoenen

Het handschoenmateriaal moet ondoorlatend en bestand zijn tegen het product / de stof / de bereiding.

Op grond van falende testen kan geen aanbeveling voor handschoenmateriaal voor het product / de bereiding / het chemicaliën-mengsel afgegeven worden.

Kies handschoenmateriaal rekening houdend met de penetratietijden, de permeatiegraden en de degradatie.

· **Handschoenmateriaal**

De keuze van een geschikte handschoen is niet alleen afhankelijk van het materiaal, maar ook van andere kwaliteitskenmerken en verschilt van fabrikant tot fabrikant. Aangezien het product uit meerdere stoffen is samengesteld, is de duurzaamheid van de handschoenmaterialen niet vooraf berekenbaar en moet derhalve vóór

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het gebruik worden getest.

- **Doordringingstijd van het handschoenmateriaal**

De precieze penetratietijd kunt u te weten komen bij de handschoenfabrikant; houd er rekening mee.

- **Oogbescherming:** Bij het omgieten is het gebruik van een veiligheidsbril aan te bevelen.

### RUBRIEK 9: Fysische en chemische eigenschappen

- **9.1 Informatie over fysische en chemische basiseigenschappen**

- **Algemene gegevens**

- **Voorkomen:**

Vorm: Vloeistof

Kleur: Lichtgeel

- Geur: Zwak, karakteristiek

- Geurdrempelwaarde: Niet bepaald.

- pH-waarde: Niet bepaald.

- **Toestandsverandering**

Smelt-/vriespunt: <-16 °C

Beginkookpunt en kooktraject: >279 °C

- Vlampunt: 171 °C

- Ontvlambaarheid (vast, gas): Niet bruikbaar.

- Ontledingstemperatuur: Niet bepaald.

- Zelfontbrandingstemperatuur: Het produkt ontbrandt niet uit zichzelf.

- Ontploffingseigenschappen: Het produkt is niet ontploffingsgevaarlijk.

- **Ontploffingsgrenzen:**

Onderste: Niet bepaald.

Bovenste: Niet bepaald.

- Dampspanning: Niet bepaald.

Dichtheid bij 20 °C: 0,984 g/cm<sup>3</sup>

- Relatieve dichtheid: Niet bepaald.

- Dampdichtheid: Niet bepaald.

- Verdampingssnelheid: Niet bepaald.

- **Oplosbaarheid in/mengbaarheid met**

Water: Niet resp. gering mengbaar.

- Verdelingscoëfficiënt: n-octanol/water: Niet bepaald.

- **Viscositeit**

Dynamisch bij 20 °C: 492 mPas

Kinematisch bij 40 °C: >20,5 mm<sup>2</sup>/s

- **Oplosmiddelgehalte:**

VOC (EG) 0,00 %

Gehalte aan vaste bestanddelen: 0,0 %

- **9.2 Overige informatie** Geen verdere relevante informatie verkrijgbaar.

NL

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### RUBRIEK 10: Stabiliteit en reactiviteit

- **10.1 Reactiviteit** Geen verdere relevante informatie verkrijgbaar.
- **10.2 Chemische stabiliteit**
- **Thermische afbraak / te vermijden omstandigheden:** Geen afbraak bij gebruik volgens voorschrift.
- **10.3 Mogelijke gevaarlijke reacties** Geen gevaarlijke reacties bekend.
- **10.4 Te vermijden omstandigheden** Geen verdere relevante informatie verkrijgbaar.
- **10.5 Chemisch op elkaar inwerkende materialen:** Geen verdere relevante informatie verkrijgbaar.
- **10.6 Gevaarlijke ontledingsproducten:** Geen gevaarlijke ontbindingsproducten bekend.

### RUBRIEK 11: Toxicologische informatie

- **11.1 Informatie over toxicologische effecten**
- **Acute toxiciteit**  
Schadelijk bij contact met de huid.
- **Primaire aandoening:**
- **Huidcorrosie/-irritatie**  
Veroorzaakt huidirritatie.
- **Ernstig oogletsel/oogirritatie** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Sensibilisatie van de luchtwegen/de huid**  
Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Aanvullende toxicologische informatie:**
- **CMR-effecten (kankerverwekkendheid, mutageniteit en giftigheid voor de voortplanting)**
- **Mutageniteit in geslachtscellen** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Kankerverwekkendheid** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Giftigheid voor de voortplanting** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij eenmalige blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **STOT bij herhaalde blootstelling** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.
- **Gevaar bij inademing** Gebaseerd op beschikbare gegevens; aan de indelingscriteria is niet voldaan.

### RUBRIEK 12: Ecologische informatie

- **12.1 Toxiciteit**
- **Aquatische toxiciteit:** Geen verdere relevante informatie verkrijgbaar.
- **12.2 Persistentie en afbreekbaarheid** Geen verdere relevante informatie verkrijgbaar.
- **12.3 Bioaccumulatie** Geen verdere relevante informatie verkrijgbaar.
- **12.4 Mobiliteit in de bodem** Geen verdere relevante informatie verkrijgbaar.
- **Verdere ecologische informatie:**
- **Algemene informatie:** Geen gevaar voor water bekend.
- **12.5 Resultaten van PBT- en zPzB-beoordeling**
- **PBT:** Niet bruikbaar.
- **zPzB:** Niet bruikbaar.
- **12.6 Andere schadelijke effecten** Geen verdere relevante informatie verkrijgbaar.

### RUBRIEK 13: Instructies voor verwijdering

- **13.1 Afvalverwerkingsmethoden**
- **Aanbeveling:** Mag niet tesamen met huisvuil gestort worden of in de riolering terechtkomen.

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- Niet gereinigde verpakkingen:
- Aanbeveling: Afvalverwijdering volgens overheidsbepalingen.

### RUBRIEK 14: Informatie met betrekking tot het vervoer

- 14.1 VN-nummer  
· ADR, IMDG, IATA Niet van toepassing
- 14.2 Juiste ladingnaam overeenkomstig de modelreglementen van de VN  
· ADR, IMDG, IATA Niet van toepassing
- 14.3 Transportgevarenklasse(n)  
· ADR, ADN, IMDG, IATA  
· klasse Niet van toepassing
- 14.4 Verpakkingsgroep:  
· ADR, IMDG, IATA Niet van toepassing
- 14.5 Milieugevaren: Niet bruikbaar.
- 14.6 Bijzondere voorzorgen voor de gebruiker Niet bruikbaar.
- 14.7 Vervoer in bulk overeenkomstig bijlage II bij Marpol en de IBC-code Niet bruikbaar.
- VN "Model Regulation": Niet van toepassing

### RUBRIEK 15: Regelgeving

- 15.1 Specifieke veiligheids-, gezondheids- en milieureglementen en -wetgeving voor de stof of het mengsel

- SZW-lijst van kankerverwekkende stoffen

geen der bestanddelen staat op de lijst.

- SZW-lijst van mutagene stoffen

geen der bestanddelen staat op de lijst.

- NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Vruchtbaarheid

geen der bestanddelen staat op de lijst.

- NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Ontwikkeling

geen der bestanddelen staat op de lijst.

- NIET-limitatieve lijst van voor de voortplanting giftige stoffen - Borstvoeding

geen der bestanddelen staat op de lijst.

- Lijst Zeer Zorgwekkende Stoffen (ZZS)

geen der bestanddelen staat op de lijst.

- Lijst van Potentieel Zeer Zorgwekkende Stoffen

geen der bestanddelen staat op de lijst.

- Richtlijn 2012/18/EU

- Gevaarlijke stoffen die met naam genoemd worden - BIJLAGE I geen der bestanddelen staat op de lijst.

- Richtlijn 2011/65/EU betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen in elektrische en elektronische apparatuur - Bijlage II

geen der bestanddelen staat op de lijst.

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· **VERORDENING (EU) 2019/1148**

· **Bijlage I - PRECURSOREN VOOR EXPLOSIEVEN WAARVOOR EEN BEPERKING GELDT (Bovengrenswaarde ten behoeve van vergunningverlening op grond van artikel 5, lid 3)**

geen der bestanddelen staat op de lijst.

· **Bijlage II - PRECURSOREN VOOR EXPLOSIEVEN DIE MOETEN WORDEN GEMELD**

geen der bestanddelen staat op de lijst.

· **Verordening (EG) nr. 273/2004 inzake drugsprecursoren**

geen der bestanddelen staat op de lijst.

· **Verordening (EG) Nr. 111/2005 houdende voorschriften voor het toezicht op de handel tussen de Gemeenschap en derde landen in drugsprecursoren**

geen der bestanddelen staat op de lijst.

· **15.2 Chemischeveiligheidsbeoordeling:** Een chemische veiligheidsbeoordeling is niet uitgevoerd.

## RUBRIEK 16: Overige informatie

Deze gegevens zijn gebaseerd op de huidige stand van onze kennis. Zij beschrijven echter geen garantie van producteigenschappen en vestigen geen contractuele rechtsbetrekking.

· **Afkortingen en acroniemen:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxiciteit – Categorie 4

Skin Irrit. 2: Huidcorrosie/-irritatie – Categorie 2

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### RUBRIQUE 1: Identification de la substance/du mélange et de la société/l'entreprise

- **1.1 Identificateur de produit**
- **Nom du produit: *Immersion Oil Type LDF***
- **Code du produit:** 16919, 16919-16, 16919-01
- **UFI:** 2Q12-Q0WM-900S-NC08
- **1.2 Utilisations identifiées pertinentes de la substance ou du mélange et utilisations déconseillées**  
Pas d'autres informations importantes disponibles.
- **Emploi de la substance / de la préparation** Produits chimiques pour laboratoires
- **1.3 Renseignements concernant le fournisseur de la fiche de données de sécurité**
- **Producteur/fournisseur:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkck@aol.com  
www.emsdiasum.com
- **Service chargé des renseignements:** Product safety department
- **1.4 Numéro d'appel d'urgence:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### RUBRIQUE 2: Identification des dangers

- **2.1 Classification de la substance ou du mélange**
- **Classification selon le règlement (CE) n° 1272/2008**



GHS07

- Acute Tox. 4 H312 Nocif par contact cutané.
- Skin Irrit. 2 H315 Provoque une irritation cutanée.

- **2.2 Éléments d'étiquetage**
- **Étiquetage selon le règlement (CE) n° 1272/2008** Le produit est classifié et étiqueté selon le règlement CLP.
- **Pictogrammes de danger**



GHS07

- **Mention d'avertissement** Attention
- **Mentions de danger**  
H312 Nocif par contact cutané.  
H315 Provoque une irritation cutanée.
- **Conseils de prudence**  
P280 Porter des gants de protection / des vêtements de protection.  
P312 Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.  
P321 Traitement spécifique (voir sur cette étiquette).  
P362+P364 Enlever les vêtements contaminés et les laver avant réutilisation.  
P332+P313 En cas d'irritation cutanée: consulter un médecin.  
P501 Éliminer le contenu/récipient conformément à la réglementation locale/régionale/nationale/internationale.

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- **2.3 Autres dangers**
- **Résultats des évaluations PBT et vPvB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.

### RUBRIQUE 3: Composition/informations sur les composants

- **3.2 Caractérisation chimique: Mélanges**
- **Description:** Mélange des substances mentionnées à la suite avec des additifs non dangereux.
- **Composants dangereux:** néant
- **Indications complémentaires:** Pour le libellé des phrases de risque citées, se référer au chapitre 16.

### RUBRIQUE 4: Premiers secours

- **4.1 Description des premiers secours**
- **Remarques générales:**  
Les symptômes d'intoxication peuvent apparaître après de nombreuses heures seulement; une surveillance médicale est donc nécessaire au moins 48 heures après un accident.
- **Après inhalation:** En cas d'inconscience, coucher et transporter la personne en position latérale stable.
- **Après contact avec la peau:** Laver immédiatement à l'eau et au savon et bien rincer.
- **Après contact avec les yeux:**  
Rincer les yeux, sous l'eau courante, pendant plusieurs minutes, en écartant bien les paupières.
- **Après ingestion:** Si les troubles persistent, consulter un médecin.
- **4.2 Principaux symptômes et effets, aigus et différés** Pas d'autres informations importantes disponibles.
- **4.3 Indication des éventuels soins médicaux immédiats et traitements particuliers nécessaires**  
Pas d'autres informations importantes disponibles.

### RUBRIQUE 5: Mesures de lutte contre l'incendie

- **5.1 Moyens d'extinction**
- **Moyens d'extinction:** Adapter les mesures d'extinction d'incendie à l'environnement.
- **5.2 Dangers particuliers résultant de la substance ou du mélange**  
Pas d'autres informations importantes disponibles.
- **5.3 Conseils aux pompiers**
- **Équipement spécial de sécurité:** Aucune mesure particulière n'est requise.

### RUBRIQUE 6: Mesures à prendre en cas de dispersion accidentelle

- **6.1 Précautions individuelles, équipement de protection et procédures d'urgence** Pas nécessaire.
- **6.2 Précautions pour la protection de l'environnement:** Aucune mesure particulière n'est requise.
- **6.3 Méthodes et matériel de confinement et de nettoyage:**  
Recueillir les liquides à l'aide d'un produit absorbant (sable, kieselguhr, neutralisant d'acide, liant universel, sciure).  
Evacuer les matériaux contaminés en tant que déchets conformément au point 13.  
Assurer une aération suffisante.
- **6.4 Référence à d'autres rubriques**  
Afin d'obtenir des informations pour une manipulation sûre, consulter le chapitre 7.  
Afin d'obtenir des informations sur les équipements de protection personnels, consulter le chapitre 8.

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Afin d'obtenir des informations sur l'élimination, consulter le chapitre 13.

### RUBRIQUE 7: Manipulation et stockage

- **7.1 Précautions à prendre pour une manipulation sans danger**  
Veiller à une bonne ventilation/aspiration du poste de travail.  
Eviter la formation d'aérosols.
- **Préventions des incendies et des explosions:** Aucune mesure particulière n'est requise.
- **7.2 Conditions d'un stockage sûr, y compris d'éventuelles incompatibilités**
- **Stockage:**
- **Exigences concernant les lieux et conteneurs de stockage:** Aucune exigence particulière.
- **Indications concernant le stockage commun:** Pas nécessaire.
- **Autres indications sur les conditions de stockage:** Néant.
- **7.3 Utilisation(s) finale(s) particulière(s)** Pas d'autres informations importantes disponibles.

### RUBRIQUE 8: Contrôles de l'exposition/protection individuelle

- **8.1 Paramètres de contrôle**
- **Indications complémentaires pour l'agencement des installations techniques:**  
Sans autre indication, voir point 7.
- **Composants présentant des valeurs-seuil à surveiller par poste de travail:**  
Le produit ne contient pas en quantité significative des substances présentant des valeurs-seuil à surveiller par poste de travail.
- **Remarques supplémentaires:**  
Le présent document s'appuie sur les listes en vigueur au moment de son élaboration.
- **8.2 Contrôles de l'exposition**
- **Equipement de protection individuel:**
- **Mesures générales de protection et d'hygiène:**  
Tenir à l'écart des produits alimentaires, des boissons et de la nourriture pour animaux.  
Retirer immédiatement les vêtements souillés ou humectés.  
Se laver les mains avant les pauses et en fin de travail.  
Eviter tout contact avec la peau.  
Eviter tout contact avec les yeux et avec la peau.
- **Protection respiratoire:**  
En cas d'exposition faible ou de courte durée, utiliser un filtre respiratoire; en cas d'exposition intense ou durable, utiliser un appareil de respiration indépendant de l'air ambiant.
- **Protection des mains:**



Gants de protection

- Le matériau des gants doit être imperméable et résistant au produit / à la substance / à la préparation.  
À cause du manque de tests, aucune recommandation pour un matériau de gants pour le produit / la préparation / le mélange de produits chimiques ne peut être donnée.  
Choix du matériau des gants en fonction des temps de pénétration, du taux de perméabilité et de la dégradation.
- **Matériau des gants**  
Le choix de gants appropriés dépend non seulement du matériau, mais aussi d'autres critères de qualité qui peuvent varier d'un fabricant à l'autre. Puisque le produit représente une préparation composée de plusieurs substances, la résistance des matériaux des gants ne peut pas être calculée à l'avance et doit, alors, être contrôlée avant l'utilisation.

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- **Temps de pénétration du matériau des gants**  
Le temps de pénétration exact est à déterminer par le fabricant des gants de protection et à respecter.
- **Protection des yeux:** Lunettes de protection recommandées pour le transvasement.

### RUBRIQUE 9: Propriétés physiques et chimiques

- **9.1 Informations sur les propriétés physiques et chimiques essentielles**
- **Indications générales**
- **Aspect:**
  - **Forme:** Liquide
  - **Couleur:** Jaune clair
  - **Odeur:** Faible, caractéristique
  - **Seuil olfactif:** Non déterminé.
- **valeur du pH:** Non déterminé.
- **Changement d'état**
  - **Point de fusion/point de congélation:** <-16 °C
  - **Point initial d'ébullition et intervalle d'ébullition:** >279 °C
- **Point d'éclair** 171 °C
- **Inflammabilité (solide, gaz):** Non applicable.
- **Température de décomposition:** Non déterminé.
- **Température d'auto-inflammabilité:** Le produit ne s'enflamme pas spontanément.
- **Propriétés explosives:** Le produit n'est pas explosif.
- **Limites d'explosion:**
  - **Inférieure:** Non déterminé.
  - **Supérieure:** Non déterminé.
- **Pression de vapeur:** Non déterminé.
- **Densité à 20 °C:** 0,984 g/cm<sup>3</sup>
- **Densité relative** Non déterminé.
- **Densité de vapeur:** Non déterminé.
- **Taux d'évaporation:** Non déterminé.
- **Solubilité dans/miscibilité avec l'eau:** Pas ou peu miscible
- **Coefficient de partage: n-octanol/eau:** Non déterminé.
- **Viscosité:**
  - **Dynamique à 20 °C:** 492 mPas
  - **Cinématique à 40 °C:** >20,5 mm<sup>2</sup>/s
- **Teneur en solvants:**
  - **VOC (CE)** 0,00 %
  - **Teneur en substances solides:** 0,0 %
- **9.2 Autres informations** Pas d'autres informations importantes disponibles.

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# Fiche de données de sécurité

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**Nom du produit: Immersion Oil Type LDF**

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### RUBRIQUE 10: Stabilité et réactivité

- **10.1 Réactivité** Pas d'autres informations importantes disponibles.
- **10.2 Stabilité chimique**
- **Décomposition thermique/conditions à éviter:** Pas de décomposition en cas d'usage conforme.
- **10.3 Possibilité de réactions dangereuses** Aucune réaction dangereuse connue.
- **10.4 Conditions à éviter** Pas d'autres informations importantes disponibles.
- **10.5 Matières incompatibles:** Pas d'autres informations importantes disponibles.
- **10.6 Produits de décomposition dangereux:** Pas de produits de décomposition dangereux connus

### RUBRIQUE 11: Informations toxicologiques

- **11.1 Informations sur les effets toxicologiques**
- **Toxicité aiguë**  
Nocif par contact cutané.
- **Effet primaire d'irritation:**
- **Corrosion cutanée/irritation cutanée**  
Provoque une irritation cutanée.
- **Lésions oculaires graves/irritation oculaire**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Sensibilisation respiratoire ou cutanée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Indications toxicologiques complémentaires:**
- **Effets CMR (cancérogène, mutagène et toxique pour la reproduction)**
- **Mutagenicité sur les cellules germinales**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Cancérogénicité** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité pour la reproduction**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition unique**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Toxicité spécifique pour certains organes cibles - exposition répétée**  
Compte tenu des données disponibles, les critères de classification ne sont pas remplis.
- **Danger par aspiration** Compte tenu des données disponibles, les critères de classification ne sont pas remplis.

### RUBRIQUE 12: Informations écologiques

- **12.1 Toxicité**
- **Toxicité aquatique:** Pas d'autres informations importantes disponibles.
- **12.2 Persistance et dégradabilité** Pas d'autres informations importantes disponibles.
- **12.3 Potentiel de bioaccumulation** Pas d'autres informations importantes disponibles.
- **12.4 Mobilité dans le sol** Pas d'autres informations importantes disponibles.
- **Autres indications écologiques:**
- **Indications générales:** Aucune pollution des eaux connue.
- **12.5 Résultats des évaluations PBT et VPVB**
- **PBT:** Non applicable.
- **vPvB:** Non applicable.
- **12.6 Autres effets néfastes** Pas d'autres informations importantes disponibles.

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### RUBRIQUE 13: Considérations relatives à l'élimination

- **13.1 Méthodes de traitement des déchets**
- **Recommandation:** Ne doit pas être évacué avec les ordures ménagères. Ne pas laisser pénétrer dans les égouts.
- **Emballages non nettoyés:**
- **Recommandation:** Evacuation conformément aux prescriptions légales.

### RUBRIQUE 14: Informations relatives au transport

· <b>14.1 Numéro ONU</b> · <b>ADR, IMDG, IATA</b>	néant
· <b>14.2 Désignation officielle de transport de l'ONU</b> · <b>ADR, IMDG, IATA</b>	néant
· <b>14.3 Classe(s) de danger pour le transport</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Classe</b>	néant
· <b>14.4 Groupe d'emballage</b> · <b>ADR, IMDG, IATA</b>	néant
· <b>14.5 Dangers pour l'environnement:</b>	Non applicable.
· <b>14.6 Précautions particulières à prendre par l'utilisateur</b>	Non applicable.
· <b>14.7 Transport en vrac conformément à l'annexe II de la convention Marpol et au recueil IBC</b>	Non applicable.
· <b>"Règlement type" de l'ONU:</b>	néant

### RUBRIQUE 15: Informations relatives à la réglementation

- **15.1 Réglementations/législation particulières à la substance ou au mélange en matière de sécurité, de santé et d'environnement**
- **Directive 2012/18/UE**
- **Substances dangereuses désignées - ANNEXE I** Aucun des composants n'est compris.
- **Directive 2011/65/UE relative à la limitation de l'utilisation de certaines substances dangereuses dans les équipements électriques et électroniques – Annexe II**  
Aucun des composants n'est compris.
- **RÈGLEMENT (UE) 2019/1148**
- **Annexe I - PRÉCURSEURS D'EXPLOSIFS FAISANT L'OBJET DE RESTRICTIONS (Valeur limite maximale aux fins de l'octroi d'une licence en vertu de l'article 5, paragraphe 3)**  
Aucun des composants n'est compris.
- **Annexe II - PRÉCURSEURS D'EXPLOSIFS DEVANT FAIRE L'OBJET D'UN SIGNALEMENT**  
Aucun des composants n'est compris.
- **Règlement (CE) n° 273/2004 relatif aux précurseurs de drogues**  
Aucun des composants n'est compris.

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· **Règlement (CE) n° 111/2005 fixant des règles pour la surveillance du commerce des précurseurs des drogues entre la Communauté et les pays tiers**

Aucun des composants n'est compris.

· **15.2 Évaluation de la sécurité chimique:** Une évaluation de la sécurité chimique n'a pas été réalisée.

### **RUBRIQUE 16: Autres informations**

Ces indications sont fondées sur l'état actuel de nos connaissances, mais ne constituent pas une garantie quant aux propriétés du produit et ne donnent pas lieu à un rapport juridique contractuel.

· **Acronymes et abréviations:**

ADR: Accord relatif au transport international des marchandises dangereuses par route

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Toxicité aiguë – Catégorie 4

Skin Irrit. 2: Corrosion cutanée/irritation cutanée – Catégorie 2

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# Sicherheitsdatenblatt

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### ABSCHNITT 1: Bezeichnung des Stoffs beziehungsweise des Gemischs und des Unternehmens

- **1.1 Produktidentifikator**
- **Handelsname: Immersion Oil Type LDF**
- **Artikelnummer: 16919, 16919-16, 16919-01**
- **UFI: 2Q12-Q0WM-900S-NC08**
- **1.2 Relevante identifizierte Verwendungen des Stoffs oder Gemischs und Verwendungen, von denen abgeraten wird**  
Keine weiteren relevanten Informationen verfügbar.
- **Verwendung des Stoffes / des Gemisches Laborchemikalien**
- **1.3 Einzelheiten zum Lieferanten, der das Sicherheitsdatenblatt bereitstellt**
- **Hersteller/Lieferant:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkcck@aol.com](mailto:sgkcck@aol.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)  
  
Science Services GmbH  
Unterhachinger Str. 75  
81737 München Germany  
  
Tel: +49(0)89 18 93 668-0  
[safety@scienceservices.de](mailto:safety@scienceservices.de)  
  
Deutschland: +49 (0)89 19240, 24h Giftnotruf Munchen, [www.toxinfo.org](http://www.toxinfo.org)  
Osterreich: +43 1406 43 43, Gesundheit Osterreich GmbH, 24 h
- **Auskunftgebender Bereich: Product safety department**
- **1.4 Notrufnummer:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### ABSCHNITT 2: Mögliche Gefahren

- **2.1 Einstufung des Stoffs oder Gemischs**
- **Einstufung gemäß Verordnung (EG) Nr. 1272/2008**



GHS07

Acute Tox. 4 H312 Gesundheitsschädlich bei Hautkontakt.  
Skin Irrit. 2 H315 Verursacht Hautreizungen.

- **2.2 Kennzeichnungselemente**
- **Kennzeichnung gemäß Verordnung (EG) Nr. 1272/2008**  
Das Produkt ist gemäß CLP-Verordnung eingestuft und gekennzeichnet.
- **Gefahrenpiktogramme**



GHS07

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- **Signalwort** Achtung
- **Gefahrenhinweise**
  - H312 Gesundheitsschädlich bei Hautkontakt.
  - H315 Verursacht Hautreizungen.
- **Sicherheitshinweise**
  - P280 Schutzhandschuhe / Schutzkleidung tragen.
  - P312 Bei Unwohlsein GIFTINFORMATIONSZENTRUM/Arzt anrufen.
  - P321 Besondere Behandlung (siehe auf diesem Kennzeichnungsetikett).
  - P362+P364 Kontaminierte Kleidung ausziehen und vor erneutem Tragen waschen.
  - P332+P313 Bei Hautreizung: Ärztlichen Rat einholen/ärztliche Hilfe hinzuziehen.
  - P501 Entsorgung des Inhalts / des Behälters gemäß den örtlichen / regionalen / nationalen / internationalen Vorschriften.
- **2.3 Sonstige Gefahren**
- **Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.

### ABSCHNITT 3: Zusammensetzung/Angaben zu Bestandteilen

- **3.2 Chemische Charakterisierung: Gemische**
- **Beschreibung:** Gemisch aus nachfolgend angeführten Stoffen mit ungefährlichen Beimengungen.
- **Gefährliche Inhaltsstoffe:** entfällt
- **Zusätzliche Hinweise:** Der Wortlaut der angeführten Gefahrenhinweise ist dem Abschnitt 16 zu entnehmen.

### ABSCHNITT 4: Erste-Hilfe-Maßnahmen

- **4.1 Beschreibung der Erste-Hilfe-Maßnahmen**
- **Allgemeine Hinweise:**
  - Vergiftungssymptome können erst nach vielen Stunden auftreten, deshalb ärztliche Überwachung mindestens 48 Stunden nach einem Unfall.
- **Nach Einatmen:** Bei Bewusstlosigkeit Lagerung und Transport in stabiler Seitenlage.
- **Nach Hautkontakt:** Sofort mit Wasser und Seife abwaschen und gut nachspülen.
- **Nach Augenkontakt:** Augen bei geöffnetem Lidspalt mehrere Minuten mit fließendem Wasser spülen.
- **Nach Verschlucken:** Bei anhaltenden Beschwerden Arzt konsultieren.
- **4.2 Wichtigste akute und verzögert auftretende Symptome und Wirkungen**
  - Keine weiteren relevanten Informationen verfügbar.
- **4.3 Hinweise auf ärztliche Soforthilfe oder Spezialbehandlung**
  - Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 5: Maßnahmen zur Brandbekämpfung

- **5.1 Löschmittel**
- **Geeignete Löschmittel:** Feuerlöschmaßnahmen auf die Umgebung abstimmen.
- **5.2 Besondere vom Stoff oder Gemisch ausgehende Gefahren**
  - Keine weiteren relevanten Informationen verfügbar.
- **5.3 Hinweise für die Brandbekämpfung**
- **Besondere Schutzausrüstung:** Keine besonderen Maßnahmen erforderlich.

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### ABSCHNITT 6: Maßnahmen bei unbeabsichtigter Freisetzung

- **6.1 Personenbezogene Vorsichtsmaßnahmen, Schutzausrüstungen und in Notfällen anzuwendende Verfahren**  
Nicht erforderlich.
- **6.2 Umweltschutzmaßnahmen:** Keine besonderen Maßnahmen erforderlich.
- **6.3 Methoden und Material für Rückhaltung und Reinigung:**  
Mit flüssigkeitsbindendem Material (Sand, Kieselgur, Säurebinder, Universalbinder, Sägemehl) aufnehmen.  
Kontaminiertes Material als Abfall nach Abschnitt 13 entsorgen.  
Für ausreichende Lüftung sorgen.
- **6.4 Verweis auf andere Abschnitte**  
Informationen zur sicheren Handhabung siehe Abschnitt 7.  
Informationen zur persönlichen Schutzausrüstung siehe Abschnitt 8.  
Informationen zur Entsorgung siehe Abschnitt 13.

### ABSCHNITT 7: Handhabung und Lagerung

- **7.1 Schutzmaßnahmen zur sicheren Handhabung**  
Für gute Belüftung/Absaugung am Arbeitsplatz sorgen.  
Aerosolbildung vermeiden.
- **Hinweise zum Brand- und Explosionsschutz:** Keine besonderen Maßnahmen erforderlich.
- **7.2 Bedingungen zur sicheren Lagerung unter Berücksichtigung von Unverträglichkeiten**
- **Lagerung:**
- **Anforderung an Lagerräume und Behälter:** Keine besonderen Anforderungen.
- **Zusammenlagerungshinweise:** Nicht erforderlich.
- **Weitere Angaben zu den Lagerbedingungen:** Keine.
- **Lagerklasse:**
- **Klassifizierung nach Betriebssicherheitsverordnung (BetrSichV):** -
- **7.3 Spezifische Endanwendungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 8: Begrenzung und Überwachung der Exposition/Persönliche Schutzausrüstungen

- **8.1 Zu überwachende Parameter**
- **Zusätzliche Hinweise zur Gestaltung technischer Anlagen:** Keine weiteren Angaben, siehe Abschnitt 7.
- **Bestandteile mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten:**  
Das Produkt enthält keine relevanten Mengen von Stoffen mit arbeitsplatzbezogenen, zu überwachenden Grenzwerten.
- **Zusätzliche Hinweise:** Als Grundlage dienen die bei der Erstellung gültigen Listen.
- **8.2 Begrenzung und Überwachung der Exposition**
- **Persönliche Schutzausrüstung:**
- **Allgemeine Schutz- und Hygienemaßnahmen:**  
Von Nahrungsmitteln, Getränken und Futtermitteln fernhalten.  
Beschmutzte, getränkte Kleidung sofort ausziehen.  
Vor den Pausen und bei Arbeitsende Hände waschen.  
Berührung mit der Haut vermeiden.  
Berührung mit den Augen und der Haut vermeiden.
- **Atemschutz:**  
Bei kurzzeitiger oder geringer Belastung Atemfiltergerät; bei intensiver bzw. längerer Exposition umluftunabhängiges Atemschutzgerät verwenden.

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· **Handschutz:**

Schutzhandschuhe

Das Handschuhmaterial muss undurchlässig und beständig gegen das Produkt / den Stoff / die Zubereitung sein. Aufgrund fehlender Tests kann keine Empfehlung zum Handschuhmaterial für das Produkt / die Zubereitung / das Chemikaliengemisch abgegeben werden.

Auswahl des Handschuhmaterials unter Beachtung der Durchbruchzeiten, Permeationsraten und der Degradation.

· **Handschuhmaterial**

Die Auswahl eines geeigneten Handschuhs ist nicht nur vom Material, sondern auch von weiteren Qualitätsmerkmalen abhängig und von Hersteller zu Hersteller unterschiedlich. Da das Produkt eine Zubereitung aus mehreren Stoffen darstellt, ist die Beständigkeit von Handschuhmaterialen nicht vorausberechenbar und muß deshalb vor dem Einsatz überprüft werden.

· **Durchdringungszeit des Handschuhmaterials**

Die genaue Durchbruchzeit ist beim Schutzhandschuhhersteller zu erfahren und einzuhalten.

· **Augenschutz:** Beim Umfüllen Schutzbrille empfehlenswert.

### ABSCHNITT 9: Physikalische und chemische Eigenschaften

· **9.1 Angaben zu den grundlegenden physikalischen und chemischen Eigenschaften**· **Allgemeine Angaben**· **Aussehen:**

<b>Form:</b>	Flüssigkeit
<b>Farbe:</b>	Hellgelb
<b>Geruch:</b>	Schwach, charakteristisch
<b>Geruchsschwelle:</b>	Nicht bestimmt.

· **pH-Wert:** Nicht bestimmt.· **Zustandsänderung**

<b>Schmelzpunkt/Gefrierpunkt:</b>	<-16 °C
<b>Siedebeginn und Siedebereich:</b>	>279 °C

· **Flammpunkt:** 171 °C· **Entzündbarkeit (fest, gasförmig):** Nicht anwendbar.· **Zersetzungstemperatur:** Nicht bestimmt.· **Selbstentzündungstemperatur:** Das Produkt ist nicht selbstentzündlich.· **Explosive Eigenschaften:** Das Produkt ist nicht explosionsgefährlich.· **Explosionsgrenzen:**

<b>Untere:</b>	Nicht bestimmt.
<b>Obere:</b>	Nicht bestimmt.

· **Dampfdruck:** Nicht bestimmt.· **Dichte bei 20 °C:** 0,984 g/cm<sup>3</sup>· **Relative Dichte:** Nicht bestimmt.· **Dampfdichte:** Nicht bestimmt.· **Verdampfungsgeschwindigkeit:** Nicht bestimmt.

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· <b>Löslichkeit in / Mischbarkeit mit Wasser:</b>	Nicht bzw. wenig mischbar.
· <b>Verteilungskoeffizient: n-Octanol/Wasser:</b>	Nicht bestimmt.
· <b>Viskosität:</b>	
<b>Dynamisch bei 20 °C:</b>	492 mPas
<b>Kinematisch bei 40 °C:</b>	>20,5 mm <sup>2</sup> /s
· <b>Lösemittelgehalt:</b>	
<b>VOC (EU)</b>	0,00 %
<b>Festkörpergehalt:</b>	0,0 %
· <b>9.2 Sonstige Angaben</b>	Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 10: Stabilität und Reaktivität

- **10.1 Reaktivität** Keine weiteren relevanten Informationen verfügbar.
- **10.2 Chemische Stabilität**
- **Thermische Zersetzung / zu vermeidende Bedingungen:**  
Keine Zersetzung bei bestimmungsgemäßer Verwendung.
- **10.3 Möglichkeit gefährlicher Reaktionen** Keine gefährlichen Reaktionen bekannt.
- **10.4 Zu vermeidende Bedingungen** Keine weiteren relevanten Informationen verfügbar.
- **10.5 Unverträgliche Materialien:** Keine weiteren relevanten Informationen verfügbar.
- **10.6 Gefährliche Zersetzungsprodukte:** Keine gefährlichen Zersetzungsprodukte bekannt.

### ABSCHNITT 11: Toxikologische Angaben

- **11.1 Angaben zu toxikologischen Wirkungen**
- **Akute Toxizität**  
Gesundheitsschädlich bei Hautkontakt.
- **Primäre Reizwirkung:**
- **Ätz-/Reizwirkung auf die Haut**  
Verursacht Hautreizungen.
- **Schwere Augenschädigung/-reizung** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Sensibilisierung der Atemwege/Haut** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Zusätzliche toxikologische Hinweise:**
- **CMR-Wirkungen (krebserzeugende, erbgutverändernde und fortpflanzungsgefährdende Wirkung)**
- **Keimzell-Mutagenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Karzinogenität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Reproduktionstoxizität** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei einmaliger Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Spezifische Zielorgan-Toxizität bei wiederholter Exposition**  
Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.
- **Aspirationsgefahr** Aufgrund der verfügbaren Daten sind die Einstufungskriterien nicht erfüllt.

### ABSCHNITT 12: Umweltbezogene Angaben

- **12.1 Toxizität**
- **Aquatische Toxizität:** Keine weiteren relevanten Informationen verfügbar.

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- **12.2 Persistenz und Abbaubarkeit** Keine weiteren relevanten Informationen verfügbar.
- **12.3 Bioakkumulationspotenzial** Keine weiteren relevanten Informationen verfügbar.
- **12.4 Mobilität im Boden** Keine weiteren relevanten Informationen verfügbar.
- **Weitere ökologische Hinweise:**
- **Allgemeine Hinweise:** Keine Wassergefährdung bekannt.
- **12.5 Ergebnisse der PBT- und vPvB-Beurteilung**
- **PBT:** Nicht anwendbar.
- **vPvB:** Nicht anwendbar.
- **12.6 Andere schädliche Wirkungen** Keine weiteren relevanten Informationen verfügbar.

### ABSCHNITT 13: Hinweise zur Entsorgung

- **13.1 Verfahren der Abfallbehandlung**
- **Empfehlung:** Darf nicht zusammen mit Hausmüll entsorgt werden. Nicht in die Kanalisation gelangen lassen.
- **Ungereinigte Verpackungen:**
- **Empfehlung:** Entsorgung gemäß den behördlichen Vorschriften.

### ABSCHNITT 14: Angaben zum Transport

- |                                                                                                 |                  |
|-------------------------------------------------------------------------------------------------|------------------|
| · <b>14.1 UN-Nummer</b><br>· <b>ADR, IMDG, IATA</b>                                             | entfällt         |
| · <b>14.2 Ordnungsgemäße UN-Versandbezeichnung</b><br>· <b>ADR, IMDG, IATA</b>                  | entfällt         |
| · <b>14.3 Transportgefahrenklassen</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Klasse</b>      | entfällt         |
| · <b>14.4 Verpackungsgruppe</b><br>· <b>ADR, IMDG, IATA</b>                                     | entfällt         |
| · <b>14.5 Umweltgefahren:</b>                                                                   | Nicht anwendbar. |
| · <b>14.6 Besondere Vorsichtsmaßnahmen für den Verwender</b>                                    | Nicht anwendbar. |
| · <b>14.7 Massengutbeförderung gemäß Anhang II des MARPOL-Übereinkommens und gemäß IBC-Code</b> | Nicht anwendbar. |
| · <b>UN "Model Regulation":</b>                                                                 | entfällt         |

### ABSCHNITT 15: Rechtsvorschriften

- **15.1 Vorschriften zu Sicherheit, Gesundheits- und Umweltschutz/spezifische Rechtsvorschriften für den Stoff oder das Gemisch**
- **Richtlinie 2012/18/EU**
- **Namentlich aufgeführte gefährliche Stoffe - ANHANG I** Keiner der Inhaltsstoffe ist enthalten.
- **Richtlinie 2011/65/EU zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe in Elektro- und Elektronikgeräten – Anhang II**
- Keiner der Inhaltsstoffe ist enthalten.

(Fortsetzung auf Seite 7)



# Sicherheitsdatenblatt

## gemäß 1907/2006/EG, Artikel 31

Druckdatum: 17.05.2022

überarbeitet am: 17.05.2022

**Handelsname: Immersion Oil Type LDF**

(Fortsetzung von Seite 6)

· **VERORDNUNG (EU) 2019/1148**

· **Anhang I - BESCHRÄNKTE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE (Oberer Konzentrationsgrenzwert für eine Genehmigung nach Artikel 5 Absatz 3)**

Keiner der Inhaltsstoffe ist enthalten.

· **Anhang II - MELDEPFLICHTIGE AUSGANGSSTOFFE FÜR EXPLOSIVSTOFFE**

Keiner der Inhaltsstoffe ist enthalten.

· **Verordnung (EG) Nr. 273/2004 betreffend Droгенаusgangsstoffe**

Keiner der Inhaltsstoffe ist enthalten.

· **Verordnung (EG) Nr. 111/2005 zur Festlegung von Vorschriften für die Überwachung des Handels mit Droгенаustauschstoffen zwischen der Gemeinschaft und Drittländern**

Keiner der Inhaltsstoffe ist enthalten.

· **15.2 Stoffsicherheitsbeurteilung:** Eine Stoffsicherheitsbeurteilung wurde nicht durchgeführt.

### ABSCHNITT 16: Sonstige Angaben

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis.

· **Abkürzungen und Akronyme:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Akute Toxizität – Kategorie 4

Skin Irrit. 2: Hautreizende/-ätzende Wirkung – Kategorie 2



**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.05.2022

Revisione: 17.05.2022

### SEZIONE 1: Identificazione della sostanza o della miscela e della società/impresa

- **1.1 Identificatore del prodotto**
- **Denominazione commerciale:** Immersion Oil Type LDF
- **Articolo numero:** 16919, 16919-16, 16919-01
- **UFI:** 2Q12-Q0WM-900S-NC08
- **1.2 Usi identificati pertinenti della sostanza o della miscela e usi sconsigliati**  
Non sono disponibili altre informazioni.
- **Utilizzazione della Sostanza / del Preparato** Prodotti chimici per laboratorio
- **1.3 Informazioni sul fornitore della scheda di dati di sicurezza**
- **Produttore/fornitore:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Società Italiana Chimici**  
Via Rio Nell Ellba 140  
00138 Rome, Italy  
Tel: 39 06 8800211  
Fax: 39 30 06 8815313  
Web: www.sichim.com
- **Informazioni fornite da:** Product safety department
- **1.4 Numero telefonico di emergenza:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SEZIONE 2: Identificazione dei pericoli

- **2.1 Classificazione della sostanza o della miscela**
- **Classificazione secondo il regolamento (CE) n. 1272/2008**



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- **Acute Tox. 4 H312** Nocivo per contatto con la pelle.
- **Skin Irrit. 2 H315** Provoca irritazione cutanea.

- **2.2 Elementi dell'etichetta**
- **Etichettatura secondo il regolamento (CE) n. 1272/2008**  
Il prodotto è classificato ed etichettato conformemente al regolamento CLP.
- **Pittogrammi di pericolo**



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- **Avvertenza** Attenzione
- **Indicazioni di pericolo**  
H312 Nocivo per contatto con la pelle.  
H315 Provoca irritazione cutanea.
- **Consigli di prudenza**  
P280 Indossare guanti di protezione / indumenti protettivi.

(continua a pagina 2)

## Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

Stampato il: 17.05.2022

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**Denominazione commerciale: Immersion Oil Type LDF**

(Segue da pagina 1)

- P312 *In caso di malessere, contattare un CENTRO ANTIVELENI/un medico.*
- P321 *Trattamento specifico (vedere su questa etichetta).*
- P362+P364 *Togliere tutti gli indumenti contaminati e lavarli prima di indossarli nuovamente.*
- P332+P313 *In caso di irritazione della pelle: consultare un medico.*
- P501 *Smaltire il prodotto/recipiente in conformità con le disposizioni locali / regionali / nazionali / internazionali.*
- **2.3 Altri pericoli**
- **Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.

### SEZIONE 3: Composizione/informazioni sugli ingredienti

- **3.2 Caratteristiche chimiche: Miscela**
- **Descrizione:** Miscela delle seguenti sostanze con additivi non pericolosi.
- **Sostanze pericolose:** non applicabile
- **Ulteriori indicazioni:** Il testo dell'avvertenza dei pericoli citati può essere appreso dal capitolo 16

### SEZIONE 4: Misure di primo soccorso

- **4.1 Descrizione delle misure di primo soccorso**
- **Indicazioni generali:**  
*I sintomi di avvelenamento possono comparire dopo molte ore, per tale motivo è necessaria la sorveglianza di un medico nelle 48 ore successive all'incidente.*
- **Inalazione:** *Se il soggetto è svenuto provvedere a tenerlo durante il trasporto in posizione stabile su un fianco.*
- **Contatto con la pelle:** *Lavare immediatamente con acqua e sapone sciacquando accuratamente.*
- **Contatto con gli occhi:** *Lavare con acqua corrente per alcuni minuti tenendo le palpebre ben aperte.*
- **Ingestione:** *Se il dolore persiste consultare il medico.*
- **4.2 Principali sintomi ed effetti, sia acuti che ritardati** *Non sono disponibili altre informazioni.*
- **4.3 Indicazione dell'eventuale necessità di consultare immediatamente un medico e di trattamenti speciali**  
*Non sono disponibili altre informazioni.*

### SEZIONE 5: Misure antincendio

- **5.1 Mezzi di estinzione**
- **Mezzi di estinzione idonei:** *Adottare provvedimenti antiincendio nei dintorni della zona colpita.*
- **5.2 Pericoli speciali derivanti dalla sostanza o dalla miscela** *Non sono disponibili altre informazioni.*
- **5.3 Raccomandazioni per gli addetti all'estinzione degli incendi**
- **Mezzi protettivi specifici:** *Non sono richiesti provvedimenti particolari.*

### SEZIONE 6: Misure in caso di rilascio accidentale

- **6.1 Precauzioni personali, dispositivi di protezione e procedure in caso di emergenza** *Non necessario.*
- **6.2 Precauzioni ambientali:** *Non sono richiesti provvedimenti particolari.*
- **6.3 Metodi e materiali per il contenimento e per la bonifica:**  
*Raccogliere il liquido con materiale assorbente (sabbia, tripoli, legante di acidi, legante universale, segatura).  
Smaltimento del materiale contaminato conformemente al punto 13.  
Provvedere ad una sufficiente areazione.*
- **6.4 Riferimento ad altre sezioni**  
*Per informazioni relative ad un manipolazione sicura, vedere capitolo 7.*

(continua a pagina 3)

## Scheda di dati di sicurezza ai sensi del regolamento 1907/2006/CE, Articolo 31

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**Denominazione commerciale: Immersion Oil Type LDF**

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Per informazioni relative all'equipaggiamento protettivo ad uso personale vedere Capitolo 8.  
Per informazioni relative allo smaltimento vedere Capitolo 13.

### SEZIONE 7: Manipolazione e immagazzinamento

- **7.1 Precauzioni per la manipolazione sicura**  
Accurata ventilazione/aspirazione nei luoghi di lavoro.  
Evitare la formazione di aerosol.
- **Indicazioni in caso di incendio ed esplosione:** Non sono richiesti provvedimenti particolari.
- **7.2 Condizioni per lo stoccaggio sicuro, comprese eventuali incompatibilità**
- **Stoccaggio:**
- **Requisiti dei magazzini e dei recipienti:** Non sono richiesti requisiti particolari.
- **Indicazioni sullo stoccaggio misto:** Non necessario.
- **Ulteriori indicazioni relative alle condizioni di immagazzinamento:** Nessuno.
- **7.3 Usi finali particolari** Non sono disponibili altre informazioni.

### SEZIONE 8: Controllo dell'esposizione/protezione individuale

- **8.1 Parametri di controllo**
- **Ulteriori indicazioni sulla struttura di impianti tecnici:** Nessun dato ulteriore, vedere punto 7.
- **Componenti i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro:**  
Il prodotto non contiene quantità rilevanti di sostanze i cui valori limite devono essere tenuti sotto controllo negli ambienti di lavoro.
- **Ulteriori indicazioni:** Le liste valide alla data di compilazione sono state usate come base.
- **8.2 Controlli dell'esposizione**
- **Mezzi protettivi individuali:**
- **Norme generali protettive e di igiene del lavoro:**  
Tenere lontano da cibo, bevande e foraggi.  
Togliere immediatamente gli abiti contaminati.  
Lavarsi le mani prima dell'intervallo o a lavoro terminato.  
Evitare il contatto con la pelle.  
Evitare il contatto con gli occhi e la pelle.
- **Maschera protettiva:**  
Nelle esposizioni brevi e minime utilizzare la maschera; nelle esposizioni più intense e durature indossare l'autorespiratore.
- **Guanti protettivi:**



Guanti protettivi

Il materiale dei guanti deve essere impermeabile e stabile contro il prodotto/ la sostanza/ la formulazione.  
A causa della mancanza di tests non può essere consigliato alcun tipo di materiale per i guanti con cui manipolare il prodotto / la formulazione / la miscela di sostanze chimiche.  
Scelta del materiale dei guanti in considerazione dei tempi di passaggio, dei tassi di permeazione e della degradazione.

- **Materiale dei guanti**

La scelta dei guanti adatti non dipende soltanto dal materiale bensì anche da altre caratteristiche di qualità variabili da un produttore a un altro. Poiché il prodotto rappresenta una formulazione di più sostanze, la stabilità dei materiali dei guanti non è calcolabile in anticipo e deve essere testata prima dell'impiego

(continua a pagina 4)

**Scheda di dati di sicurezza**  
ai sensi del regolamento 1907/2006/CE, Articolo 31

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**Denominazione commerciale: Immersion Oil Type LDF**

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- **Tempo di permeazione del materiale dei guanti**  
Richiedere dal fornitore dei guanti il tempo di passaggio preciso il quale deve essere rispettato.
- **Occhiali protettivi:** Si consiglia l'uso di occhiali protettivi durante il travaso.

### SEZIONE 9: Proprietà fisiche e chimiche

#### · 9.1 Informazioni sulle proprietà fisiche e chimiche fondamentali

##### · Indicazioni generali

##### · Aspetto:

Forma:	Liquido
Colore:	Giallo chiaro
Odore:	Leggero, caratteristico
Soglia olfattiva:	Non definito.

· **valori di pH:** Non definito.

##### · Cambiamento di stato

Punto di fusione/punto di congelamento:	<-16 °C
Punto di ebollizione iniziale e intervallo di ebollizione:	>279 °C

· **Punto di infiammabilità:** 171 °C

· **Infiammabilità (solidi, gas):** Non applicabile.

· **Temperatura di decomposizione:** Non definito.

· **Temperatura di autoaccensione:** Prodotto non autoinfiammabile.

· **Proprietà esplosive:** Prodotto non esplosivo.

##### · Limiti di infiammabilità:

Inferiore:	Non definito.
Superiore:	Non definito.

· **Tensione di vapore:** Non definito.

Densità a 20 °C:	0,984 g/cm <sup>3</sup>
Densità relativa	Non definito.
Densità di vapore:	Non definito.
Velocità di evaporazione	Non definito.

· **Solubilità in/Miscibilità con acqua:** Poco e/o non miscibile.

· **Coefficiente di ripartizione: n-ottanolo/acqua:** Non definito.

##### · Viscosità:

Dinamica a 20 °C:	492 mPas
Cinematica a 40 °C:	>20,5 mm <sup>2</sup> /s

##### · Tenore del solvente:

VOC (CE) 0,00 %

Contenuto solido: 0,0 %

· **9.2 Altre informazioni** Non sono disponibili altre informazioni.

(continua a pagina 5)

**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 17.05.2022

Revisione: 17.05.2022

**Denominazione commerciale: Immersion Oil Type LDF**

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### **SEZIONE 10: Stabilità e reattività**

- **10.1 Reattività** Non sono disponibili altre informazioni.
- **10.2 Stabilità chimica**
- **Decomposizione termica/ condizioni da evitare:** Il prodotto non si decompone se utilizzato secondo le norme.
- **10.3 Possibilità di reazioni pericolose** Non sono note reazioni pericolose.
- **10.4 Condizioni da evitare** Non sono disponibili altre informazioni.
- **10.5 Materiali incompatibili:** Non sono disponibili altre informazioni.
- **10.6 Prodotti di decomposizione pericolosi:** Non sono noti prodotti di decomposizione pericolosi.

### **SEZIONE 11: Informazioni tossicologiche**

- **11.1 Informazioni sugli effetti tossicologici**
- **Tossicità acuta**  
Nocivo per contatto con la pelle.
- **Irritabilità primaria:**
- **Corrosione/irritazione cutanea**  
Provoca irritazione cutanea.
- **Lesioni oculari gravi/irritazioni oculari gravi**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Sensibilizzazione respiratoria o cutanea**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Ulteriori dati tossicologici:**
- **Effetti CMR (cancerogenicità, mutagenicità e tossicità per la riproduzione)**
- **Mutagenicità delle cellule germinali**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Cancerogenicità** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità per la riproduzione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione singola**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Tossicità specifica per organi bersaglio (STOT) - esposizione ripetuta**  
Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.
- **Pericolo in caso di aspirazione** Basandosi sui dati disponibili i criteri di classificazione non sono soddisfatti.

### **SEZIONE 12: Informazioni ecologiche**

- **12.1 Tossicità**
- **Tossicità acquatica:** Non sono disponibili altre informazioni.
- **12.2 Persistenza e degradabilità** Non sono disponibili altre informazioni.
- **12.3 Potenziale di bioaccumulo** Non sono disponibili altre informazioni.
- **12.4 Mobilità nel suolo** Non sono disponibili altre informazioni.
- **Ulteriori indicazioni in materia ambientale:**
- **Ulteriori indicazioni:** Non si conoscono dati di pericolosità per le acque.
- **12.5 Risultati della valutazione PBT e vPvB**
- **PBT:** Non applicabile.
- **vPvB:** Non applicabile.
- **12.6 Altri effetti avversi** Non sono disponibili altre informazioni.

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(continua a pagina 6)

**Scheda di dati di sicurezza**  
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Denominazione commerciale: *Immersion Oil Type LDF*

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**SEZIONE 13: Considerazioni sullo smaltimento**

- **13.1 Metodi di trattamento dei rifiuti**
- **Consigli:** Non smaltire il prodotto insieme ai rifiuti domestici Non immettere nelle fognature.
- **Imballaggi non puliti:**
- **Consigli:** Smaltimento in conformità con le disposizioni amministrative.

**SEZIONE 14: Informazioni sul trasporto**

- |                                                                                                            |                         |
|------------------------------------------------------------------------------------------------------------|-------------------------|
| · <b>14.1 Numero ONU</b><br>· <b>ADR, IMDG, IATA</b>                                                       | <i>non applicabile</i>  |
| · <b>14.2 Nome di spedizione dell'ONU</b><br>· <b>ADR, IMDG, IATA</b>                                      | <i>non applicabile</i>  |
| · <b>14.3 Classi di pericolo connesso al trasporto</b><br>· <b>ADR, ADN, IMDG, IATA</b><br>· <b>Classe</b> | <i>non applicabile</i>  |
| · <b>14.4 Gruppo di imballaggio</b><br>· <b>ADR, IMDG, IATA</b>                                            | <i>non applicabile</i>  |
| · <b>14.5 Pericoli per l'ambiente:</b>                                                                     | <i>Non applicabile.</i> |
| · <b>14.6 Precauzioni speciali per gli utilizzatori</b>                                                    | <i>Non applicabile.</i> |
| · <b>14.7 Trasporto di rinfuse secondo l'allegato II di MARPOL ed il codice IBC</b>                        | <i>Non applicabile.</i> |
| · <b>UN "Model Regulation":</b>                                                                            | <i>non applicabile</i>  |

**SEZIONE 15: Informazioni sulla regolamentazione**

- **15.1 Disposizioni legislative e regolamentari su salute, sicurezza e ambiente specifiche per la sostanza o la miscela**
- **Direttiva 2012/18/UE**
- **Sostanze pericolose specificate - ALLEGATO I** Nessuno dei componenti è contenuto.
- **Direttiva 2011/65/UE sulla restrizione dell'uso di determinate sostanze pericolose nelle apparecchiature elettriche ed elettroniche - Allegato II**  
Nessuno dei componenti è contenuto.
- **REGOLAMENTO (UE) 2019/1148**
- **Allegato I - PRECURSORI DI ESPLOSIVI SOGGETTI A RESTRIZIONI (Valore limite superiore ai fini della concessione di licenze a norma dell'articolo 5, paragrafo 3)**  
Nessuno dei componenti è contenuto.
- **Allegato II - PRECURSORI DI ESPLOSIVI SOGGETTI A SEGNALAZIONE**  
Nessuno dei componenti è contenuto.
- **Regolamento (CE) n. 273/2004 relativo ai precursori di droghe**  
Nessuno dei componenti è contenuto.

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**Scheda di dati di sicurezza**  
**ai sensi del regolamento 1907/2006/CE, Articolo 31**

Stampato il: 17.05.2022

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**Denominazione commerciale: Immersion Oil Type LDF**

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· **Regolamento (CE) N. 111/2005 recante norme per il controllo del commercio dei precursori di droghe tra la Comunità e i paesi terzi**

Nessuno dei componenti è contenuto.

· **15.2 Valutazione della sicurezza chimica:** Una valutazione della sicurezza chimica non è stata effettuata.

### **SEZIONE 16: Altre informazioni**

*I dati sono riportati sulla base delle nostre conoscenze attuali, non rappresentano tuttavia alcuna garanzia delle caratteristiche del prodotto e non motivano alcun rapporto giuridico contrattuale.*

· **Abbreviazioni e acronimi:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

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*Acute Tox. 4: Tossicità acuta – Categoria 4*

*Skin Irrit. 2: Corrosione/irritazione della pelle – Categoria 2*

IT

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.17

개정: 2022.05.17

## 1 화학제품과 회사에 관한 정보

- 제품 식별자
- 제품명: **Immersion Oil Type LDF**
- 상품번호: 16919, 16919-16, 16919-01
- 해당 순물질이나 혼합물의 관련 하위용도 및 사용금지용도
- 제품의 권고 용도와 사용상의 제한: Immersion Oil Type LDF
- 제품의 권고 용도와 사용상의 제한: 실험실 화학품
- 안전데이터표(Safety Data Sheet)내 공급업체 관련 상세 정보
- 제조자/수입자/유통업자 정보:  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- Samchang Commercial Co., Ltd.  
Yeo Eui Do  
PO Box 1110  
Seoul, Korea  
Tel: 82 2 703 3040  
Fax: 82 2 717 3298
- 
- Daedok Science, Co. Ltd.  
34141 E10 Korea Advanced Institute of Science  
Guseong-Dong, Yuseong-gu, Daejeon,  
Korea  
Phone: 82 42 710 2091  
Fax: 82 42 367 0005  
Website: www.labsmro.com
- 추가적인 정보 획득 가능: Product safety department
- 비상연락 전화번호:  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 유해성·위험성

- 순물질 또는 혼합물의 분류



피부 부식성/피부 자극성 – 구분2 H315 피부에 자극을 일으킴

- 라벨표기 요소
- GHS 라벨 요소 본 제품은 화학물질의 분류 및 표기에 관한 국제조화시스템(GHS)에 따라 분류 및 표기되었습니다.
- GHS 그림문자



GHS07

- 신호어 경고

(2 쪽에 계속)



# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.17

개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

(1 쪽부터 계속)

- **상표상에 명확히 위험성이 표시된 성분:**  
POLYBUTENE
- **유해·위험문구**  
피부에 자극을 일으킴
- **예방조치문구**  
보호장갑·보호의·보안경·안면보호구를 착용하십시오.  
피부 접촉 시: 다량의 물에 헹구시오.  
피부 자극이 생기면 의학적인 조언·주의를 받으시오.  
오염된 의복은 벗고 다시 사용 전 세척하십시오.  
용기는 환기가 잘 되는 곳에 단단히 밀폐하여 저장하십시오.  
(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.
- **기타 유해성**
- **PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과**
- **PBT(잔류성, 생물농축성, 독성 물질):** 해당사항 없음.
- **vPvB(고 잔류성, 고 생물농축성 물질):** 해당사항 없음.

### 3 구성성분의 명칭 및 함유량

- **화 학 적 특 성:** 혼합물
- **설 명:** 무해한 첨 가 물 이 함유된 아래에 열 거 된 물 질 로 만 들 어 진 혼 합 물.
- **위 험 요 소:** 누락되다

### 4 응급조치 요령

- **응급조치요령 내용**
- **일 반 적 정 보:**  
중 독 증 상 은 몇 시 간 이 지 난 뒤 에 발 생 할 수 있 다. 따 라 서 사 고 가 발 생 한 후 에 적 어 도 48 시 간 동 안 은 의 료 진 의 관 찰 을 받 아 야 한 다.
- **흡 입 했 을 때:** 환자가 의식을 잃었을 경우에는 안전한 자세에서 환자를 운반한다.
- **피 부 에 접 촉 했 을 때:** 즉시 물과 비누로 씻고 잘 행군다.
- **눈 에 들 어 갔 을 때:** 흐르는 물에 눈을 몇 분 동안 씻어낸다.
- **먹 었 을 때:** 증상이 지속될 경우에는 의사와 상담한다.
- **기 타 의 사 의 주 의 사 항:**
- **가 장 중 요 한 급·만 성 증 상 및 영 향** 추가적인 정보가 존재하지 않습니다.
- **즉 각 적 인 의 료 처 치 및 특 별 처 리 가 필 요 함 을 시 사 하 는 징 후** 추가적인 정보가 존재하지 않습니다.

### 5 폭발·화재시 대처방법

- **소 화 제**
- **적 절 한 소 화 제:** 주 변 환 경 에 맞 는 화 재 진 화 방 법 을 사 용 한 다.
- **본 화학물질이나 혼합물에서 발생하는 특별 유해성** 추가적인 정보가 존재하지 않습니다.
- **소 방 관 에 대 한 권 고 사 항**
- **화 재 진 압 시 착 용 할 보 호 구 및 예 방 조 치:** 특 별 한 조 치 가 필 요 없 음.

### 6 누출 사고 시 대처방법

- **개 인 적 예 방 조 치, 보 호 장 비 및 응 급 처 치 절 차** 필요없음.
- **환 경 관 련 예 방 조 치:** 특 별 한 조 치 가 필 요 없 음.

(3 쪽에 계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.17

개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

(2 쪽부터 계속)

- **밀폐 및 정화 방법과 소재:**  
액체가 혼합된 물질 (모래, 규조토, 산성 결합물, 일반 결합물, 톱밥)에 흡입되도록 한다.  
항목 13에 따라 오염된 물질을 쓰레기로 처분한다.  
충분한 환기가 되도록 한다.
- **타 섹션 참조**  
안전 관리에 대한 정보는 제7 장을 참고하십시오.  
개인 보호 장비에 대한 정보는 제8 장을 참고하십시오.  
쓰레기 처리에 대한 정보는 제13 장을 참고하십시오.

## 7 취급 및 저장방법

- **취급:**
- **안전 취급을 위한 예방조치**  
작업장에서는 통풍이 잘 되고/습기 제거가 잘 되게 주의한다.  
연무질이 형성되는 것을 피한다.
- **화재 및 폭발 사고 예방대책에 관한 정보:** 특별한 조치가 필요 없음.
- **혼합위험성 등 안전 저장 조건**
- **보관:**
- **안전한 저장 방법:** 특별한 요구사항이 없음.
- **하나의 공동 보관 시설에 대한 보관 관련 정보:** 필요 없음
- **보관 조건에 관한 추가적인 정보:** 없음
- **구체적 최종 사용자** 추가적인 정보가 존재하지 않습니다.

## 8 노출방지 및 개인보호구

- **첨단시설 디자인에 대한 추가정보:** 더 이상의 자료는 없음. 항목 7을 참고하십시오.
- **통제 변수**
- **화학물질의 노출기준, 생물학적 노출기준 등:**  
본 제품에는 작업장에서 감시가 필요한 주요한 가치의 어떤 해당 재료의 양을 함유하고 있지 않다.
- **추가 정보:** 제조할 당시에 유효한 목록을 기초로 사용했다.
- **노출 통제**
- **개인 보호구**
- **일반적 보호조치 및 위생조치:**  
식품, 음료수, 사료로부터 멀리 떨어져 놓는다.  
더러워지거나 음료수가 묻은 옷은 즉시 탈의한다.  
휴식 전이나 작업이 끝날 때마다 손을 씻는다.  
피부와 의 접촉을 피한다.  
눈과 피부와의 접촉을 피한다.
- **호흡기 보호:**  
단시간 또는 경미한 오염의 경우에는 호흡여과기를 사용한다. 심각한 또는 장기간 노출시에는 호흡보호장비를 사용한다.
- **손 보호:**



보호용 장갑

장갑재질은 제품 / 원료 / 조제를 통과시키지 않아야 하고, 내구성이 있어야 한다.  
테스트를 하지 않았기 때문에 제품 / 조제 / 화학 혼합물에 적합한 장갑재질에 대한 추천이 없다.  
투과 시간, 침투율과 저하를 고려해서 장갑 재료를 선택한다.

(4 쪽에 계속)

# 물질안전보건자료 GHS에 따라

인쇄일자: 2022.05.17

개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

(3 쪽부터계속)

- **장갑의재료**  
적합한장갑의선택은재질차이뿐아니라품질기준의차이도고려하여야이루어져야하고제조업종에따라서도다르게선택되어야한다 .  
제품은다양한재료로부터의조제로이루어지는것이기때문에 , 장갑재료의안정성은사전에예측되어질수있는것이아니고 ,  
반드시사용전에 (그안전성이) 체크되어야한다.
- **장갑재료의투과시간** 정확한관통시간은보호장갑제조자에의하여인지되고, 준수되어야한다.
- **눈 보호:** 옮겨부울경우추천할만한보호안경.

## 9 물리화학적 특성

· <b>기본 물리 및 화학적 특성에 대한 정보</b>	
· <b>일반정보</b>	
· <b>외형</b>	
· 물리적 상태:	액체
· 색:	옅은 노랑
· 냄새:	약한, 특색있는
· 후각역치	알맞지않다.
· pH:	알맞지않다.
· <b>상태변화</b>	
· 녹는점/어는점:	<-16 °C
· 초기 끓는점과 끓는점 범위:	>279 °C
· 인화점:	171 °C
· 인화성(고체, 기체):	해당사항 없음.
· 분해 온도:	알맞지않다.
· 자기점화:	이제품은자연발화성이없다.
· 폭발위험:	이제품은폭발위험성이없다
· <b>인화 또는 폭발 범위의 상한/하한</b>	
· 아래로:	알맞지않다.
· 위로:	알맞지않다.
· 증기압:	알맞지않다.
· 밀도 의경우 20 °C:	0.984 g/cm <sup>3</sup>
· 비중:	알맞지않다.
· 증기밀도:	알맞지않다.
· 증발 속도:	알맞지않다.
· 용해도:	
· 물:	각각의경우에따라서는거의혼합할수없는
· n 옥탄올/물 분배계수:	알맞지않다.
· <b>점도:</b>	
· 역학성 의경우 20 °C:	492 mPas
· 동점성 의경우 40 °C:	>20.5 mm <sup>2</sup> /s
· <b>용매내용물</b>	
· VOC (EU)	0.00 %
· 고체의 함량:	0.0 %

(5 쪽에계속)

**물질안전보건자료  
GHS에 따라**

인쇄일자: 2022.05.17

개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

(4 쪽부터계속)

· 기타 정보                                      추가적인 정보가 존재하지 않습니다.

**10 안정성 및 반응성**

- 반응성 추가적인 정보가 존재하지 않습니다.
- 화학적 안정성
- 화학적 안정성 및 유해 반응의 가능성 / 피해야 할 조건: 규정에따라사용할경우해체는없다
- 유해반응 가능성 위험한반응으로는알려지지않았다.
- 피해야 할 조건 추가적인 정보가 존재하지 않습니다.
- 혼합 금지 물질: 추가적인 정보가 존재하지 않습니다.
- 유해분해물질: 위험성있는분해물들은알려지지않았다.

**11 독성에 관한 정보**

- 독성학적 영향에 대한 정보
- 급성 독성:
- 일차적 자극 효과:
- 피부 부식성 또는 자극성: 피부와점막을자극한다.
- 심한 눈 손상 또는 자극성: 무자극.
- 감각화: 민감한영향이없는것으로알려져있다.
- 추가적인 독성에 관한 정보:  
이제품은유럽공동체의공동분류원칙의합법적인절차에근거하여최근에발효된원고에서아래위험들의사전준비에대하여제시하고있  
다.  
건강에해로운  
자극적인

**12 환경에 미치는 영향**

- 독성
- 수생독성: 추가적인 정보가 존재하지 않습니다.
- 지속성 및 분해성 추가적인 정보가 존재하지 않습니다.
- 환경 시스템에서의 행동:
- 생물농축 잠재성 추가적인 정보가 존재하지 않습니다.
- 토양내 이동성 추가적인 정보가 존재하지 않습니다.
- 추가적인 생태학 정보:
- 일반 특징: 수질오염이알려져있지않다.
- PBT(잔류성, 생물농축성, 독성 물질) 및 vPvB(고 잔류성, 고 생물농축성 물질) 평가 결과
- PBT(잔류성, 생물농축성, 독성 물질): 해당사항 없음.
- vPvB(고 잔류성, 고 생물농축성 물질): 해당사항 없음.
- 기타 부작용 추가적인 정보가 존재하지 않습니다.

**13 폐기시 주의사항**

- 폐기물 처리 방법
- 권고: 생활쓰레기와함께처리되어서는안된다. 하수도망으로유입되어서는안된다.

(6 쪽에계속)

# 물질안전보건자료 GHS에 따라

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개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

(5 쪽부터계속)

- 비위생적 포장:
- 권고: 당국의지침에입각한쓰레기처리.

## 14 운송에 필요한 정보

· 유엔 번호 · ADR, IMDG, IATA	누락되다
· UN 적정 선적명 · ADR, IMDG, IATA	누락되다
· 교통 위험 클래스 · ADR, ADN, IMDG, IATA · 등급	누락되다
· 용기등급 · ADR, IMDG, IATA	누락되다
· 환경적 유해물질:	해당사항 없음.
· 이용자 특별 예방조치	해당사항 없음.
· MARPOL73/78(선박으로부터의 해양오염방지협약) 부속서2 및 IBC Code(국제선적화물코드)에 따른 벌크(bulk) 운송	해당사항 없음.
· UN "모범 규제":	누락되다

## 15 법적 규제현황

· 산업안전보건법에 의한 규제:	
· 제조 등 금지물질:	어떠한내용물도목록화되어있지않다
· 허가대상물질:	어떠한내용물도목록화되어있지않다
· 관리대상유해물질:	어떠한내용물도목록화되어있지않다
· 작업환경측정 대상 유해인자	어떠한내용물도목록화되어있지않다
· 특수건강진단 대상 유해인자	어떠한내용물도목록화되어있지않다
· 해당 순물질 또는 혼합물에 대한 안전, 보건 및 환경 규제/법률 추가적인 정보가 존재하지 않습니다.	
· 화학물질관리법	
· 사고대비물질	어떠한내용물도목록화되어있지않다
· 금지물질	어떠한내용물도목록화되어있지않다
· 제한물질	어떠한내용물도목록화되어있지않다

(7 쪽에계속)

# 물질안전보건자료 GHS에 따라

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**제품명: Immersion Oil Type LDF**

(6 쪽부터 계속)

· <b>유독물질</b>
어떠한내용물도목록화되어있지않다
· <b>허가물질</b>
어떠한내용물도목록화되어있지않다
· <b>등록 또는 신고 면제대상 화학물질</b>
어떠한내용물도목록화되어있지않다
· <b>‘21년까지 등록하여야 할 압, 돌연변이, 생식능력 이상을 일으키거나 일으킬 우려가 있는 기존화학물질</b>
어떠한내용물도목록화되어있지않다
· <b>중점관리물질의 지정</b>
· <b>표1 중점관리물질(제2조 관련)</b>
어떠한내용물도목록화되어있지않다
· <b>표2 중점관리물질(제2조 관련)</b>
어떠한내용물도목록화되어있지않다

- **GHS 라벨 요소** 본 제품은 화학물질의 분류 및 표기에 관한 국제제화시스템(GHS)에 따라 분류 및 표기되었습니다.
- **GHS 그림문자**



GHS07

- **신호어 경고**
- **상표상에명확히위험성이표시된성분:**  
POLYBUTENE
- **유해·위험문구**  
피부에 자극을 일으킴
- **예방조치문구**  
보호장갑·보호의·보안경·안면보호구를 착용하십시오.  
피부 접촉 시: 다량의 물에 헹구시오.  
피부 자극이 생기면 의학적인 조언·주의를 받으시오.  
오염된 의복은 벗고 다시 사용 전 세척하십시오.  
용기는 환기가 잘 되는 곳에 단단히 밀폐하여 저장하십시오.  
(지방/지역/국가/국제 규정에 따라) 에 내용물/용기를 폐기하십시오.
- **화학물질 안전성 평가:** 화학물질 안전성 평가가 수행되지 않음

## 16 그 밖의 참고사항

이 보고는 우리 지식에 대한 오늘날의 상태에 대하여 평가하고 있다  
하지만 이 보고서는 생산 특성에 관한 보증은 기술하지 않았으며 계약적인 법률 관계에 기반을 두고 있지 않다

- **담당자:**
- **최초 작성일자:** 2022.05.17
- **개정 횟수 및 최종 개정일자:** 1 / 2022.05.17
- **약어와 두문자어:**  
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)

(8 쪽에 계속)

물질안전보건자료  
GHS에 따라

인쇄일자: 2022.05.17

개정: 2022.05.17

**제품명: Immersion Oil Type LDF**

PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

(7 쪽부터계속)

KR

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

### 1 Pengenalan bahan kimia berbahaya dan pembekal

- **Pengenal pasti produk**
- **Nama dagang: *Immersion Oil Type LDF***
- **Nombor artikel: 16919, 16919-16, 16919-01**
- **Kegunaan yang disarankan bagi bahan dan sekatan penggunaan** *Tiada maklumat lanjut yang diperolehi.*
- **Penggunaan bahan/sediaan** *Bahan kimia makmal*
- **Perincian pembekal risalah data keselamatan**
- **Pengilang/Pembekal:**  
*Electron Microscopy Sciences  
 1560 Industry Road  
 USA-Hatfield, PA 19440  
 Tel: 215-412-8400 Fax: 215-412-8450  
 email: sgcck@aol.com  
 www.emsdiasum.com*
- **Maklumat lanjut dapat diperolehi daripada:** *Product safety department*
- **Nombor telefon kecemasan:**  
*ChemTrec 1-800-424-9300 Contract CCN7661  
 1-703-527-3887*

### 2 Pengenalan bahaya

- **Pengelasan bahan atau campuran**



Tengkorak dan tulang bersilang

Toks. Akut 3 H311 Toksik jika terkena kulit.



Kreng. Kulit 2 H315 Menyebabkan kerengsaan kulit.

- **Melabelkan unsur**
- **Unsur label GHS** *Produk ini dikelaskan dan dilabelkan menurut Sistem Terharmoni Global (GHS).*
- **Piktogram bahaya**



GHS06

- **Kata isyarat Bahaya**
- **Pernyataan Bahaya**  
*Toksik jika terkena kulit.  
 Menyebabkan kerengsaan kulit.*
- **Pernyataan Berjaga-jaga**  
*Pakai sarung tangan / pakaian pelindung.  
 Hubungi PUSAT RACUN/doktor jika anda rasa tidak sihat.  
 Langkah khas (lihat label ini).  
 Segera tanggalkan/buka semua pakaian yang tercemar.  
 Simpan di tempat berkunci.  
 Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.*

(Bersambung ke halaman 2)



## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

**Nama dagang: Immersion Oil Type LDF**

(Sambungan halaman 1)

- **Bahaya lain**
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan

### 3 Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

- **Ciri kimia: Campuran**
- **Keterangan:** Campuran bahan disenaraikan di bawah bersama dengan bahan tambah tidak berbahaya.
- **Komponen berbahaya :** Tidak sah

### 4 Langkah-langkah pertolongan cemas

- **Keterangan langkah pertolongan cemas**
- **Maklumat am:**  
Gejala keracunan boleh berlaku selepas beberapa jam, maka rawatan perubatan hendaklah diberikan sekurang-kurangnya 48 jam selepas kemalangan.
- **Jika tersedut:**  
Jika mangsa tidak sedarkan diri, letakkan pesakit dengan stabil dalam kedudukan mengiring untuk diangkat.
- **Jika terkena kulit:** Segera basuh dengan air dan sabun serta bilas bersih-bersih.
- **Jika terkena mata:** Bilas mata sambil membukanya di bawah air yang mengalir selama beberapa minit.
- **Jika tertelan:** Jika gejala berterusan, hubungi doktor.
- **Maklumat untuk doktor:**
- **Gejala dan kesan paling penting, akut dan lewat** Tiada maklumat lanjut yang diperoleh.
- **Arahan bagi apa-apa rawatan perubatan dan rawatan khas yang diperlukan**  
Tiada maklumat lanjut yang diperoleh.

### 5 Langkah-langkah pepadaman kebakaran

- **Bahan pemadam api**
- **Agan pemadam yang sesuai:** Gunakan kaedah pepadaman kebakaran yang sesuai dengan keadaan sekeliling.
- **Bahaya khusus yang timbul daripada bahan atau campuran** Tiada maklumat lanjut yang diperoleh.
- **Panduan kepada pemadam kebakaran**
- **Kelengkapan perlindungan:** Tiada langkah khusus diperlukan.

### 6 Langkah-langkah pelepasan tidak sengaja

- **Langkah perlindungan diri, kelengkapan pelindung dan prosedur kecemasan** Tidak diperlukan.
- **Langkah perlindungan alam sekitar:** Tiada langkah khusus diperlukan.
- **Kaedah dan bahan untuk pembendungan dan pembersihan:**  
Serap dengan bahan cecair pengikat (pasir, diatomit, pengikat asid, pengikat semesta, habuk papan)  
Lupuskan bahan tercemar sebagai sisa mengikut perkara 13.  
Pastikan pengalihudaraan mencukupi.
- **Rujukan ke bahagian lain**  
Lihat Bahagian 7 untuk maklumat pengendalian yang selamat.  
Lihat Bahagian 8 untuk maklumat kelengkapan perlindungan diri.  
Lihat Bahagian 13 untuk maklumat pelupusan.

MY

(Bersambung ke halaman 3)

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

**Nama dagang: Immersion Oil Type LDF**

(Sambungan halaman 2)

### 7 Pengendalian dan penyimpanan

- **Pengendalian:**
- **Langkah perlindungan untuk pengendalian selamat**  
Pastikan pengalihudaraan/ekzos yang mencukupi di tempat kerja.  
Elakkan pembentukan aerosol.
- **Maklumat kebakaran dan perlindungan daripada letupan:** Tiada langkah berjaga-jaga yang khusus diperlukan.
- **Keadaan untuk penyimpanan selamat, termasuk apa-apa ketakserasian**
- **Penyimpanan:**
- **Keperluan yang mesti dipenuhi oleh bilik stor dan ruang simpanan.** Tiada keperluan khusus.
- **Maklumat penyimpanan di dalam satu tempat penyimpanan yang biasa:** Tidak diperlukan.
- **Maklumat lanjut tentang syarat penyimpanan:** Tiada.
- **Kegunaan akhir yang khusus** Tiada maklumat lanjut yang diperoleh.

### 8 Kawalan pendedahan dan perlindungan diri

- **Maklumat tambahan tentang reka bentuk kemudahan teknikal:** Tiada maklumat lanjut, lihat perkara 7.
- **Parameter kawalan**
- **Ramuan dengan nilai had yang memerlukan pemantauan di tempat kerja:**  
Produk tidak mengandungi sebarang kuantiti bahan yang berkaitan dengan nilai kritikal yang perlu dipantau di tempat kerja.
- **Maklumat tambahan:** Senarai yang sah semasa pembuatan digunakan sebagai asas.
- **Kawalan pendedahan**
- **Kelengkapan perlindungan diri:**
- **Langkah perlindungan dan kebersihan am:**  
Jauhkan daripada makanan, minuman dan makanan haiwan.  
Segera tanggalkan semua pakaian yang tercemar dan kotor.  
Basuh tangan sebelum berhenti rehat dan apabila kerja selesai.  
Elakkan daripada terkena kulit.  
Elakkan daripada terkena mata dan kulit.
- **Perlindungan pernafasan:**  
Jika berlaku pendedahan sekejap atau sedikit pencemaran, gunakan alat penapis pernafasan. Jika berlaku pendedahan yang intensif atau berpanjangan, gunakan alat pernafasan perlindungan serba lengkap.
- **Perlindungan tangan:**



Sarung tangan pelindung.

Bahan sarung tangan hendaklah telus dan kalis terhadap produk/bahan/sediaan.

Oleh sebab tiada ujian yang dijalankan, maka tiada syor bagi bahan sarung tangan yang boleh diberikan untuk produk/sediaan/campuran kimia.

Pemilihan bahan sarung tangan berdasarkan waktu penembusan, kadar pembauran dan degradasi.

- **Bahan sarung tangan**

Pemilihan sarung tangan yang sesuai bukan hanya bergantung pada bahannya, tetapi juga tanda kualiti lainnya serta perbezaannya daripada satu pengeluar dengan pengeluar yang lain. Memandangkan produk merupakan suatu sediaan daripada beberapa bahan, ketahanan bahan sarung tangan tidak boleh dipastikan terlebih dahulu, oleh itu sarung tangan hendaklah diperiksa sebelum digunakan.

- **Jangka masa penyerapan bahan sarung tangan**

Waktu kemunculan yang tepat hendaklah diperoleh pengeluar sarung tangan pelindung dan hendaklah dipatuhi.

(Bersambung ke halaman 4)

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

Nama dagang: *Immersion Oil Type LDF*

(Sambungan halaman 3)

· *Perlindungan mata: Gogal disyorkan semasa pengisian semula.*

### 9 Sifat fizikal dan kimia

· <i>Maklumat tentang ciri fizik dan kimia</i>	
· <i>Maklumat Am</i>	
· <i>Rupa:</i>	
<i>Bentuk:</i>	<i>Cecair</i>
<i>Warna:</i>	<i>Kuning muda</i>
· <i>Bau:</i>	<i>Lemah, ciri</i>
· <i>Ambang bau</i>	<i>Tidak ditentukan.</i>
· <i>Nilai pH:</i>	<i>Tidak ditentukan.</i>
· <i>Perubahan pada keadaan</i>	
<i>Takat lebur/takat beku</i>	<i>&lt;-16 °C</i>
<i>Takat didih awal dan julat didih</i>	<i>&gt;279 °C</i>
· <i>Takat kilat:</i>	<i>171 °C</i>
· <i>Kemudahbakaran (pepejal, gas)</i>	<i>Tidak berkenaan</i>
· <i>Suhu penguraian:</i>	<i>Tidak ditentukan.</i>
· <i>Suhu pengautocucuhan</i>	<i>Produk tidak tercucuh sendiri</i>
· <i>Bahaya letupan:</i>	<i>Produk tidak ada bahaya letupan.</i>
· <i>Had letupan :</i>	
<i>Bawah:</i>	<i>Tidak ditentukan.</i>
<i>Atas:</i>	<i>Tidak ditentukan.</i>
· <i>Tekanan wap:</i>	<i>Tidak ditentukan.</i>
· <i>Ketumpatan pada 20 °C:</i>	<i>0.984 g/cm<sup>3</sup></i>
· <i>Ketumpatan bandingan</i>	<i>Tidak ditentukan.</i>
· <i>Ketumpatan wap</i>	<i>Tidak ditentukan.</i>
· <i>Kadar penyejatan</i>	<i>Tidak ditentukan.</i>
· <i>Keterlarutan dalam / Keterlarutcampuran dengan</i>	
<i>Air:</i>	<i>Tidak terlarut campur atau sukar bercampur.</i>
· <i>Pekali sekatan: n-oktanol/air</i>	<i>Tidak ditentukan.</i>
· <i>Kelikatan:</i>	
<i>Dinamik pada 20 °C:</i>	<i>492 mPas</i>
<i>Kinematik pada 40 °C:</i>	<i>&gt;20.5 mm<sup>2</sup>/s</i>
· <i>Kandungan pelarut:</i>	
<i>Kandungan pepejal:</i>	<i>0.0 %</i>
· <i>Maklumat lain</i>	<i>Tiada maklumat lanjut yang diperoleh.</i>

### 10 Kestabilan dan kereaktifan

- *Kereaktifan Tiada maklumat lanjut yang diperoleh.*
- *Kestabilan kimia*
- *Penguraian terma/keadaan yang perlu dielakkan: Tiada penguraian jika digunakan mengikut spesifikasi.*

(Bersambung ke halaman 5)

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

**Nama dagang: Immersion Oil Type LDF**

(Sambungan halaman 4)

- **Kemungkinan tindak balas berbahaya** Tiada tindak balas berbahaya yang diketahui.
- **Keadaan yang perlu dielakkan** Tiada maklumat lanjut yang diperoleh.
- **Bahan tidak serasi:** Tiada maklumat lanjut yang diperoleh.
- **Produk penguraian yang berbahaya:** Tiada produk penguraian berbahaya yang diketahui.

### 11 Maklumat toksikologi

- **Maklumat tentang kesan toksikologi**
- **Ketoksikan akut:**
- **Kesan kerengsaan primer:**
- **Kakisan atau kerengsaan kulit** Merengsa kepada kulit dan mukus membran.
- **Kerosakan atau kerengsaan mata yang serius** Tiada kesan kerengsaan.
- **Pemekaan pernafasan / kulit** Tiada kesan pemekaan yang diketahui.
- **Maklumat tambahan toksikologi:**  
Produk menunjukkan bahaya berikut mengikut kaedah pengiraan Garis Panduan Pengelasan Am EU bagi Sediaan seperti yang dikeluarkan dalam versi terbaru:  
Memudaratkan  
Perengsa

### 12 Maklumat ekologi

- **Ketoksikan**
- **Ketoksikan akuatik:** Tiada maklumat lanjut yang diperoleh.
- **Keterusan dan keterdegradasikan** Tiada maklumat lanjut yang diperoleh.
- **Kelakuan dalam sistem alam sekitar:**
- **Potensi bioakumulatif** Tiada maklumat lanjut yang diperoleh.
- **Mobiliti di dalam tanah** Tiada maklumat lanjut yang diperoleh.
- **Maklumat tambahan ekologi:**
- **Nota am:** Tidak diketahui berbahaya kepada air.
- **Keputusan penilaian PBT dan vPvB**
- **PBT:** Tidak berkenaan
- **vPvB:** Tidak berkenaan
- **Kesan buruk yang lain** Tiada maklumat lanjut yang diperoleh.

### 13 Maklumat pelupusan

- **Kaedah rawatan sisa**
- **Syor:**  
Tidak boleh dilupuskan bersama dengan sampah isi rumah. Jangan biarkan produk memasuki sistem pembentungan.
- **Pembungkusan yang tidak bersih:**
- **Syor:** Pelupusan mestilah dijalankan menurut peraturan rasmi

### 14 Maklumat pengangkutan

- **Nombor UN**
- **ADR, IMDG, IATA** Tidak sah

(Bersambung ke halaman 6)

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

**Nama dagang: Immersion Oil Type LDF**

(Sambungan halaman 5)

· Nama penghantaran UN yang betul · ADR, IMDG, IATA	Tidak sah
· pengangkutan kelas bahaya · ADR, ADN, IMDG, IATA · Kelas	Tidak sah
· Kumpulan pembungkusan · ADR, IMDG, IATA	Tidak sah
· Hazard persekitaran:	Tidak berkenaan
· Langkah perlindungan khas untuk pengguna	Tidak berkenaan
· Pengangkutan dalam pukat menurut Lampiran II MARPOL73/78 dan Kod IBC	Tidak berkenaan
· "Peraturan Model" UN:	Tidak sah

### 15 Maklumat pengawalseliaan

- Peraturan/undang-undang keselamatan, kesihatan dan persekitaran khusus untuk bahan atau campuran tersebut  
Tiada maklumat lanjut yang diperolehi.

#### · Senarai Rujukan Bahan Berbahaya Alam Sekitar

Tiada ramuan yang disenaraikan.

- Unsur label GHS Produk ini dikelaskan dan dilabelkan menurut Sistem Terharmonisasi Global (GHS).
- Piktogram hazard



GHS06

- Perkataan isyarat Bahaya
- Pernyataan hazard  
Toksik jika terkena kulit.  
Menyebabkan kerengsaan kulit.
- Pernyataan langkah perlindungan  
Pakai sarung tangan / pakaian pelindung.  
Hubungi PUSAT RACUN/doktor jika anda rasa tidak sihat.  
Langkah khas (lihat label ini).  
Segera tanggalkan/buka semua pakaian yang tercemar.  
Simpan di tempat berkunci.  
Lupuskan kandungan/bekas menurut peraturan tempatan/wilayah/kebangsaan/antarabangsa.
- Penilaian keselamatan bahan kimia: Penilaian Keselamatan Bahan Kimia belum dilakukan.

### 16 Maklumat lain

Maklumat ini berdasarkan maklumat kami yang terkini. Walau bagaimanapun, ini tidak akan menjadi jaminan bagi apa-apa ciri produk yang khusus dan tidak akan mewujudkan hubungan kontraktual yang sah dari segi undang-undang.

(Bersambung ke halaman 7)

## Helaian Data Keselamatan menurut P.U.(A) 310/2013

Tarikh cetak 17.05.2022

Disemak semula pada 17.05.2022

**Nama dagang: Immersion Oil Type LDF**

(Sambungan halaman 6)

**· Hubungi:****· Singkatan dan akronim:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Toks. Akut 3: Ketoksikan akut – Kategori 3*

*Kreng. Kulit 2: Kakisan atau kerengsaan kulit – Kategori 2*

MY

**Fișa cu date de securitate**  
conform Regulamentului (CE) nr. 1907/2006, Articolul 31

Tipărită la: 17.05.2022

data de actualizare: 17.05.2022

### SECȚIUNEA 1: Identificarea substanței/amestecului și a societății/întreprinderii

- **1.1 Element de identificare a produsului**
- **Denumire comercială:** Immersion Oil Type LDF
- **Nr. articol:** 16919, 16919-16, 16919-01
- **UFI:** 2Q12-Q0WM-900S-NC08
- **1.2 Utilizări relevante identificate ale substanței sau amestecului și utilizări contraindicate**  
Nu există alte informații relevante.
- **Utilizarea materialului / a preparatului** Chimicale de laborator
- **1.3 Detalii privind furnizorul fișei cu date de securitate**
- **Producător/furnizor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkceck@aol.com  
www.emsdiasum.com
- **Informații asigurate de:** Product safety department
- **1.4 Număr de telefon care poate fi apelat în caz de urgență:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECȚIUNEA 2: Identificarea pericolelor

- **2.1 Clasificarea substanței sau a amestecului**
- **Clasificarea în conformitate cu Regulamentul (CE) nr. 1272/2008**



GHS07

Acute Tox. 4 H312 Nociv în contact cu pielea.  
Skin Irrit. 2 H315 Provoacă iritarea pielii.

- **2.2 Elemente pentru etichetă**
- **Etichetarea în conformitate cu Regulamentul (CE) nr. 1272/2008**  
Produsul este clasificat și etichetat conform regulamentului privind clasificarea, etichetarea și ambalarea (CLP).
- **Pictograme de pericol**



GHS07

- **Cuvânt de avertizare** Atenție
- **Fraze de pericol**  
H312 Nociv în contact cu pielea.  
H315 Provoacă iritarea pielii.
- **Fraze de precauție**  
P280 A se purta mănuși de protecție/ îmbrăcăminte de protecție.  
P312 Sunați la un CENTRU DE INFORMARE TOXICOLOGICĂ /un medic dacă nu vă simțiți bine.  
P321 Tratament specific (a se vedea de pe această etichetă).  
P362+P364 Scoateți îmbrăcăminte contaminată și spalați-o înainte de reutilizare.  
P332+P313 În caz de iritare a pielii: consultați medicul.  
P501 Aruncați conținutul/containerul în acord cu regulamentele locale/regionale/naționale/internaționale.

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- **2.3 Alte pericole**
- **Rezultatele evaluării PBT și vPvB**
- **PBT:** neaplicabil
- **vPvB:** neaplicabil

### **SECȚIUNEA 3: Compoziție/informații privind componenții**

- **3.2 Caracterizarea chimică: Amestecuri**
- **Descriere:** Amestec format din următoarele substanțe cu aditivi nenocivi.
- **Componente periculoase:** nu apare
- **Indicații suplimentare:** Conținutul exact al textului inidicațiilor în caz de pericol se deduce din capitolul 16.

### **SECȚIUNEA 4: Măsuri de prim ajutor**

- **4.1 Descrierea măsurilor de prim ajutor**
- **Indicații generale:**  
Simptomele de otrăvire pot apare după multe ore, din acest motiv este necesară supravegherea atentă a unui medic pentru cel puțin 48 de ore după accident.
- **după inhalare:** In caz de leșin, pacientul trebuie ținut și transportat în poziție laterală cât mai stabilă.
- **după contactul cu pielea:** Trebuie spălat imediat cu apă și săpun, clătind din abundență.
- **după contactul cu ochii:**  
Este necesară spălarea ochilor cu apă curentă timp de câteva minute, ținând pleoapele complet deschise.
- **după înghițire:** Dacă durerea persistă, trebuie consultat medicul.
- **4.2 Cele mai importante simptome și efecte, atât acute, cât și întârziate** Nu există alte informații relevante.
- **4.3 Indicații privind orice fel de asistență medicală imediată și tratamentele speciale necesare**  
Nu există alte informații relevante.

### **SECȚIUNEA 5: Măsuri de combatere a incendiilor**

- **5.1 Mijloace de stingere a incendiilor**
- **Extinctorul potrivit:** Trebuie adoptate măsuri antiincendiu în vecinătate.
- **5.2 Pericole speciale cauzate de substanța sau amestecul în cauză** Nu există alte informații relevante.
- **5.3 Recomandări destinate pompierilor**
- **Mijloace de protecție specifice:** Nu sînt necesare măsuri speciale.

### **SECȚIUNEA 6: Măsuri de luat în caz de dispersie accidentală**

- **6.1 Precauții personale, echipament de protecție și proceduri de urgență** Nu este necesar.
- **6.2 Precauții pentru mediul înconjurător:** Nu sînt necesare măsuri speciale.
- **6.3 Metode și material pentru izolarea incendiilor și pentru curățenie:**  
Lichidul trebuie restrîns cu ajutorul materialelor absorbante (nisip, făină fosilică, legătură universală, legătură de acizi, rumeguș).  
Materialul contaminat trebuie eliminat ca reziduu în conformitate cu punctul 13.  
Trebuie asigurată o aerisire suficientă.
- **6.4 Trimiteri către alte secțiuni**  
Pentru informații cu privire la o manipulare sigură vezi capitolul 7.  
Pentru informații cu privire la echipamentul de protecție de uz personal vezi capitolul 8.  
Pentru informații cu privire la reziduuri vezi capitolul 13.

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### SECȚIUNEA 7: Manipularea și depozitarea

- **7.1 Precauții pentru manipularea în condiții de securitate**  
Trebuie asigurată o bună aerisire/aspirare la locul de muncă.  
Trebuie evitată formarea de aerosol.
- **Indicații în caz de incendiu sau explozie:** Nu sînt necesare măsuri speciale.
- **7.2 Condiții de depozitare în condiții de securitate, inclusiv eventuale incompatibilități**
- **Mod de păstrare:**
- **Condiții pentru depozite și rezervoare:** Nu sînt necesare condiții speciale.
- **Indicații cu privire la stocarea mixtă:** Nu este necesar.
- **Alte indicații cu privire la condițiile de depozitare:** niciuna
- **7.3 Utilizare finală specifică (utilizări finale specifice)** Nu există alte informații relevante.

### SECȚIUNEA 8: Controale ale expunerii/protecția personală

- **8.1 Parametri de control**
- **Indicații suplimentare privind instalațiile tehnice:** Fără date suplimentare, a se vedea punctul 7.
- **Ingredienții ale căror valori limită trebuie ținute sub control la locurile de muncă:**  
Produsul nu conține cantități relevante de substanțe ale căror valori limită trebuie ținute sub control la locurile de muncă.
- **Indicații suplimentare:** S-au folosit ca bază listele valabile în momentul producției.
- **8.2 Controale ale expunerii**
- **Echipament de protecție personală:**
- **Norme generale de protecție și de igienă în timpul lucrului:**  
A se ține la distanță de alimente, băuturi și furaje.  
A se îndepărta imediat hainele contaminate.  
A se spăla mâinile înaintea pauzelor și la terminarea lucrului.  
A se evita contactul cu pielea.  
A se evita contactul cu ochii și pielea.
- **Mască de protecție:**  
In cazul expunerilor scurte și minime se va utiliza masca; în cazul celor mai intense și de durată se va utiliza aparatul autorespirator.
- **Protecția mâinilor:**



Mănuși de protecție

Materialul din care sunt fabricate mănușile trebuie să fie impermeabil la aer și rezistent la produs / substanță / preparat.

În absența testelor nu pot fi date recomandări privind materialul de mănuși pentru produs / preparat / amestec chimic.

Alegerea materialului pentru mănuși se va face luându-se în considerație timpul de penetrare, rata de permeabilitate și degradarea.

- **Material pentru mănuși**  
Alegerea unei mănuși potrivite nu depinde numai de material, ci și de alte caracteristici de calitate și diferă de la producător la producător. Dacă produsul reprezintă un preparat din mai multe substanțe, durabilitatea materialului pentru mănuși nu poate fi probată în prealabil și de aceea trebuie controlată înainte de folosire.
- **Timp de penetrație al materialului pentru mănuși**  
Timpul exact de penetrare trebuie aflat și respectat de către fabricantul mănușilor de protecție.

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· **Protecția ochilor:** Se recomandă ochelarii de protecție în timpul manipulării.**SECȚIUNEA 9: Proprietățile fizice și chimice**· **9.1 Informații privind proprietățile fizice și chimice de bază**· **Indicații generale**· **Aspect:**

· <b>Formă:</b>	Lichid
· <b>Culoare:</b>	galben deschis
· <b>Miros:</b>	lejer, caracteristic
· <b>Pragul de acceptare a mirosului:</b>	Nedefinit.

· **Valoare pH:** Nedefinit.· **Schimbare de stare de agregare**

· <b>Punctul de topire/punctul de înghețare:</b>	<-16 °C
· <b>Punctul inițial de fierbere și intervalul de fierbere:</b>	>279 °C

· **Punctul de aprindere:** 171 °C· **Inflamabilitatea (solid, gaz):** neaplicabil· **Temperatura de descompunere:** Nedefinit.· **Temperatura de autoaprindere:** Produsul nu este autoinflamabil.· **Proprietăți explozive:** Produsul nu este explozibil.· **Limite de inflamabilitate:**

· <b>inferioară:</b>	Nedefinit.
· <b>superioară:</b>	Nedefinit.

· **Presiunea de vapori:** Nedefinit.· **Densitate la 20 °C:** 0,984 g/cm<sup>3</sup>· **Densitatea relativă:** Nedefinit.· **Densitatea vaporilor:** Nedefinit.· **Viteza de evaporare:** Nedefinit.· **Solubil în / amestecabil cu:**· **Apa:** se amestecă puțin respectiv deloc· **Coeficientul de partiție: n-octanol/apă:** Nedefinit.· **Vâscozitatea:**

· <b>dinamică la 20 °C:</b>	492 mPas
· <b>cinematică la 40 °C:</b>	>20,5 mm <sup>2</sup> /s

· **Nivelul solventului:**· **VOC (EC)** 0,00 %· **Conținut solid:** 0,0 %· **9.2 Alte informații** Nu există alte informații relevante.**SECȚIUNEA 10: Stabilitate și reactivitate**· **10.1 Reactivitate** Nu există alte informații relevante.

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- **10.2 Stabilitate chimică**
- **Descompunere termică/ condiții de evitat:** Produsul nu se descompune dacă este folosit conform normelor.
- **10.3 Posibilitatea de reacții periculoase** Nu se cunosc reacții periculoase.
- **10.4 Condiții de evitat** Nu există alte informații relevante.
- **10.5 Materiale incompatibile:** Nu există alte informații relevante.
- **10.6 Produși de descompunere periculoși:** Nu sînt cunoscuți produși de descompunere periculoși.

### SECȚIUNEA 11: Informații toxicologice

- **11.1 Informații privind efectele toxicologice**
- **Toxicitate acută**  
Nociv în contact cu pielea.
- **Iritabilitate primară:**
- **Corodarea/iritarea pielii**  
Provoacă iritarea pielii.
- **Lezarea gravă/iritarea ochilor** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Sensibilizarea căilor respiratorii sau a pielii**  
Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Informații cu privire la următoarele grupe de efecte posibile:**
- **Efecte CMR (efect cancerigen, mutagen și toxic pentru reproducere)**
- **Mutagenitatea celulelor germinative** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Cancerogenitatea** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Toxicitatea pentru reproducere** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **STOT (toxicitate asupra organelor țintă specifice) – expunere unică**  
Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **STOT (toxicitate asupra organelor țintă specifice) – expunere repetată**  
Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.
- **Pericol prin aspirare** Pe baza datelor disponibile, criteriile de clasificare nu sunt îndeplinite.

### SECȚIUNEA 12: Informații ecologice

- **12.1 Toxicitate**
- **Toxicitate acvatică:** Nu există alte informații relevante.
- **12.2 Persistență și degradabilitate** Nu există alte informații relevante.
- **12.3 Potențial de bioacumulare** Nu există alte informații relevante.
- **12.4 Mobilitate în sol** Nu există alte informații relevante.
- **Alte indicații ecologice:**
- **Indicații generale:** Nu se cunosc date de pericol pentru ape.
- **12.5 Rezultatele evaluării PBT și vPvB**
- **PBT:** neaplicabil
- **vPvB:** neaplicabil
- **12.6 Alte efecte adverse** Nu există alte informații relevante.

### SECȚIUNEA 13: Considerații privind eliminarea

- **13.1 Metode de tratare a deșeurilor**
- **Recomandare:**  
Produsul nu se va îndepărta împreună cu resturile menajere. Se va evita pătrunderea în canalizare.

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- **Ambalaje impure:**
- **Recomandare:** Eliminarea reziduurilor conform dispozițiilor administrative.

### SECȚIUNEA 14: Informații referitoare la transport

- |                                                                                           |             |
|-------------------------------------------------------------------------------------------|-------------|
| · 14.1 Nr. UN:<br>· ADR, IMDG, IATA                                                       | nu apare    |
| · 14.2 Denumirea corectă ONU pentru expediție<br>· ADR, IMDG, IATA                        | nu apare    |
| · 14.3 Clasa (clasele) de pericol pentru transport<br>· ADR, ADN, IMDG, IATA<br>· Clasa   | nu apare    |
| · 14.4 Grup de ambalaj:<br>· ADR, IMDG, IATA                                              | nu apare    |
| · 14.5 Pericole pentru mediul înconjurător:                                               | neaplicabil |
| · 14.6 Precauții speciale pentru utilizatori                                              | neaplicabil |
| · 14.7 Transport în vrac, în conformitate cu anexa II la Convenția MARPOL și cu Codul IBC | neaplicabil |
| · UN "Model Regulation":                                                                  | nu apare    |

### SECȚIUNEA 15: Informații de reglementare

- 15.1 Regulamente/legislație în domeniul securității, sănătății și al mediului specifice (specifică) pentru substanța sau amestecul în cauză
- Directiva 2012/18/UE
- Denumirea substanțelor periculoase - ANEXA I nici una dintre substanțele conținute nu este consemnată
- Directiva 2011/65/UE privind restricțiile de utilizare a anumitor substanțe periculoase în echipamentele electrice și electronice - Anexa II
- nici una dintre substanțele conținute nu este consemnată
- REGULAMENTUL (UE) 2019/1148
- Anexa I - PRECURSORI DE EXPLOZIVI RESTRICȚIONAȚI (Valoarea-limită superioară în scopul acordării licenței în temeiul articolului 5 alineatul (3))
- nici una dintre substanțele conținute nu este consemnată
- Anexa II - PRECURSORI DE EXPLOZIVI CARE TREBUIE RAPORTAȚI
- nici una dintre substanțele conținute nu este consemnată
- Regulamentul (CE) nr. 273/2004 privind precursorii drogurilor
- nici una dintre substanțele conținute nu este consemnată
- Regulamentul (CE) nr. 111/2005 de stabilire a normelor de monitorizare a comerțului cu precursori de droguri între Comunitate și țările terțe
- nici una dintre substanțele conținute nu este consemnată
- 15.2 Evaluarea securității chimice: Nu a fost efectuată o evaluare a securității chimice.

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**SECȚIUNEA 16: Alte informații**

*Datele au fost raportate pe baza cunoștințelor noastre actuale, nu reprezintă totuși nici o garanție pentru caracteristicile produsului și nu motivează nici un raport juridic contractual.*

**Abrevieri și acronime:**

*ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*IATA: International Air Transport Association*

*GHS: Globally Harmonised System of Classification and Labelling of Chemicals*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*VOC: Volatile Organic Compounds (USA, EU)*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Toxicitate acută – Categoria 4*

*Skin Irrit. 2: Corodarea/iritarea pielii – Categoria 2*

# Ficha de datos de seguridad

## según 1907/2006/CE, Artículo 31

fecha de impresión 17.05.2022

Revisión: 17.05.2022

### SECCIÓN 1: Identificación de la sustancia o la mezcla y de la sociedad o la empresa

- **1.1 Identificador del producto**
- **Nombre comercial:** *Immersion Oil Type LDF*
- **Número del artículo:** 16919, 16919-16, 16919-01
- **UFI:** 2Q12-Q0WM-900S-NC08
- **1.2 Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados**  
No existen más datos relevantes disponibles.
- **Utilización del producto / de la elaboración** Sustancias químicas de laboratorio
- **1.3 Datos del proveedor de la ficha de datos de seguridad**
- **Fabricante/distribuidor:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: [sgkceck@aol.com](mailto:sgkceck@aol.com)  
[www.emsdiasum.com](http://www.emsdiasum.com)
- **Aname**  
C/ Perez Galdos no. 2  
28693 Quijorna  
Madrid, Spain  
Tel: +34.91.816.89.50  
Fax: +34.91.816.85.94  
email: [ventas@aname.es](mailto:ventas@aname.es)
- **Área de información:** Product safety department
- **1.4 Teléfono de emergencia:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

### SECCIÓN 2: Identificación de los peligros

- **2.1 Clasificación de la sustancia o de la mezcla**
- **Clasificación con arreglo al Reglamento (CE) n° 1272/2008**



GHS07

- *Acute Tox. 4 H312 Nocivo en contacto con la piel.*
- *Skin Irrit. 2 H315 Provoca irritación cutánea.*

- **2.2 Elementos de la etiqueta**
- **Etiquetado con arreglo al Reglamento (CE) n° 1272/2008**  
*El producto se ha clasificado y etiquetado de conformidad con el reglamento CLP.*
- **Pictogramas de peligro**



GHS07

- **Palabra de advertencia** *Atención*
- **Indicaciones de peligro**  
*H312 Nocivo en contacto con la piel.*  
*H315 Provoca irritación cutánea.*

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### · **Consejos de prudencia**

- P280 Llevar guantes de protección /ropa de protección.
- P312 Llamar a un CENTRO DE TOXICOLOGÍA/médico si la persona se encuentra mal.
- P321 Se necesita un tratamiento específico (ver en esta etiqueta).
- P362+P364 Quitar las prendas contaminadas y lavarlas antes de volver a usarlas.
- P332+P313 En caso de irritación cutánea: Consultar a un médico.
- P501 Eliminar el contenido o el recipiente conforme a la reglamentación local/regional/nacional/internacional.

### · **2.3 Otros peligros**

#### · **Resultados de la valoración PBT y mPmB**

- **PBT:** No aplicable.
- **mPmB:** No aplicable.

## SECCIÓN 3: Composición/información sobre los componentes

### · **3.2 Caracterización química: Mezclas**

- **Descripción:** Mezcla formada por las sustancias especificadas a continuación con adiciones no peligrosas.
- **Componentes peligrosos:** suprimido
- **Indicaciones adicionales:** El texto de los posibles riesgos aquí indicados se puede consultar en el capítulo 16.

## SECCIÓN 4: Primeros auxilios

### · **4.1 Descripción de los primeros auxilios**

#### · **Instrucciones generales:**

Los síntomas de intoxicación pueden presentarse después de muchas horas, por lo que se requiere una supervisión médica durante un mínimo de 48 horas después del accidente.

#### · **En caso de inhalación del producto:**

Las personas desmayadas deben tenderse y transportarse de lado con la suficiente estabilidad.

#### · **En caso de contacto con la piel:** Lavar inmediatamente con agua y jabón y enjuagar bien.

#### · **En caso de con los ojos:** Limpiar los ojos abiertos durante varios minutos con agua corriente.

#### · **En caso de ingestión:** Consultar un médico si los trastornos persisten.

### · **4.2 Principales síntomas y efectos, agudos y retardados** No existen más datos relevantes disponibles.

### · **4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente** No existen más datos relevantes disponibles.

## SECCIÓN 5: Medidas de lucha contra incendios

### · **5.1 Medios de extinción**

#### · **Sustancias extintoras apropiadas:** Combatir los incendios con medidas adaptados al ambiente circundante.

### · **5.2 Peligros específicos derivados de la sustancia o la mezcla** No existen más datos relevantes disponibles.

### · **5.3 Recomendaciones para el personal de lucha contra incendios**

#### · **Equipo especial de protección:** No se requieren medidas especiales.

## SECCIÓN 6: Medidas en caso de vertido accidental

### · **6.1 Precauciones personales, equipo de protección y procedimientos de emergencia** No es necesario.

### · **6.2 Precauciones relativas al medio ambiente:** No se requieren medidas especiales.

### · **6.3 Métodos y material de contención y de limpieza:**

Quitar con material absorbente (arena, kieselgur, aglutinante de ácidos, aglutinante universal, aserrín).

Desechar el material contaminado como vertido según ítem 13.

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Asegurar suficiente ventilación.

· **6.4 Referencia a otras secciones**

Ver capítulo 7 para mayor información sobre una manipulación segura.

Ver capítulo 8 para mayor información sobre el equipo personal de protección.

Para mayor información sobre cómo desechar el producto, ver capítulo 13.

### SECCIÓN 7: Manipulación y almacenamiento

· **7.1 Precauciones para una manipulación segura**

Asegurar suficiente ventilación /aspiración en el puesto de trabajo.

Evitar la formación de aerosoles.

· **Prevención de incendios y explosiones:** No se requieren medidas especiales.

· **7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades**

· **Almacenamiento:**

· **Exigencias con respecto al almacén y los recipientes:** No se requieren medidas especiales.

· **Normas en caso de un almacenamiento conjunto:** No es necesario.

· **Indicaciones adicionales sobre las condiciones de almacenamiento:** Ningunos, -as.

· **7.3 Usos específicos finales** No existen más datos relevantes disponibles.

### SECCIÓN 8: Controles de exposición/protección individual

· **8.1 Parámetros de control**

· **Instrucciones adicionales para el acondicionamiento de instalaciones técnicas:**

Sin datos adicionales, ver punto 7.

· **Componentes con valores límite admisibles que deben controlarse en el puesto de trabajo:**

El producto no contiene cantidades relevantes de sustancias con valores límite que exijan un control en el puesto de trabajo.

· **Indicaciones adicionales:** Como base se han utilizado las listas vigentes en el momento de la elaboración.

· **8.2 Controles de la exposición**

· **Equipo de protección individual:**

· **Medidas generales de protección e higiene:**

Mantener alejado de alimentos, bebidas y alimentos para animales.

Quitarse de inmediato la ropa ensuciada o impregnada.

Lavarse las manos antes de las pausas y al final del trabajo.

Evitar el contacto con la piel.

Evitar el contacto con los ojos y la piel.

· **Protección respiratoria:**

Si la exposición va a ser breve o de poca intensidad, colocarse una máscara respiratoria. Para una exposición más intensa o de mayor duración, usar un aparato de respiración autónomo.

· **Protección de manos:**



Guantes de protección

El material del guante deberá ser impermeable y resistente al producto / sustancia / preparado.

Ante la ausencia de tests específicos, no se puede recomendar ningún material específico para guantes de protección contra el producto / preparado / mezcla de sustancias químicas.

Selección del material de los guantes en función de los tiempos de rotura, grado de permeabilidad y degradación.

· **Material de los guantes**

La elección del guante adecuado no depende únicamente del material, sino también de otras características de calidad, que pueden variar de un fabricante a otro. Teniendo en cuenta que el producto está fabricado a partir de diferentes materiales, su calidad no puede ser evaluada de antemano, de modo que los guantes deberán ser

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controlados antes de su utilización.

- **Tiempo de penetración del material de los guantes**

El tiempo de resistencia a la penetración exacto deberá ser pedido al fabricante de los guantes. Este tiempo debe ser respetado.

- **Protección de ojos:** Se recomienda el uso de gafas de protección durante el trasvase del producto.

### SECCIÓN 9: Propiedades físicas y químicas

- **9.1 Información sobre propiedades físicas y químicas básicas**

- **Datos generales**

- **Aspecto:**

· <b>Forma:</b>	Líquido
· <b>Color:</b>	Amarillo claro
· <b>Olor:</b>	Débil, característico
· <b>Umbral olfativo:</b>	No determinado.

- **valor pH:** No determinado.

- **Cambio de estado**

· <b>Punto de fusión/punto de congelación:</b>	<-16 °C
· <b>Punto inicial de ebullición e intervalo de ebullición:</b>	>279 °C

- **Punto de inflamación:** 171 °C

- **Inflamabilidad (sólido, gas):** No aplicable.

- **Temperatura de descomposición:** No determinado.

- **Temperatura de auto-inflamación:** El producto no es autoinflamable.

- **Propiedades explosivas:** El producto no es explosivo.

- **Límites de explosión:**

· <b>Inferior:</b>	No determinado.
· <b>Superior:</b>	No determinado.

- **Presión de vapor:** No determinado.

- **Densidad a 20 °C:** 0,984 g/cm<sup>3</sup>

- **Densidad relativa** No determinado.

- **Densidad de vapor** No determinado.

- **Tasa de evaporación:** No determinado.

- **Solubilidad en / miscibilidad con agua:** Poco o no mezclable.

- **Coefficiente de reparto: n-octanol/agua:** No determinado.

- **Viscosidad:**

· <b>Dinámica a 20 °C:</b>	492 mPas
· <b>Cinemática a 40 °C:</b>	>20,5 mm <sup>2</sup> /s

- **Concentración del disolvente:**

- **VOC (CE)** 0,00 %

- **Contenido de cuerpos sólidos:** 0,0 %

- **9.2 Otros datos** No existen más datos relevantes disponibles.

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### SECCIÓN 10: Estabilidad y reactividad

- **10.1 Reactividad** No existen más datos relevantes disponibles.
- **10.2 Estabilidad química**
- **Descomposición térmica / condiciones que deben evitarse:** No se descompone al emplearse adecuadamente.
- **10.3 Posibilidad de reacciones peligrosas** No se conocen reacciones peligrosas.
- **10.4 Condiciones que deben evitarse** No existen más datos relevantes disponibles.
- **10.5 Materiales incompatibles:** No existen más datos relevantes disponibles.
- **10.6 Productos de descomposición peligrosos:** No se conocen productos de descomposición peligrosos.

### SECCIÓN 11: Información toxicológica

- **11.1 Información sobre los efectos toxicológicos**
- **Toxicidad aguda**  
Nocivo en contacto con la piel.
- **Efecto estimulante primario:**
- **Corrosión o irritación cutáneas**  
Provoca irritación cutánea.
- **Lesiones o irritación ocular graves**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Sensibilización respiratoria o cutánea**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Indicaciones toxicológicas adicionales:**
- **Efectos CMR (carcinogenicidad, mutagenicidad y toxicidad para la reproducción)**
- **Mutagenicidad en células germinales**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Carcinogenicidad** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad para la reproducción** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición única**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Toxicidad específica en determinados órganos (STOT) – exposición repetida**  
A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
- **Peligro de aspiración** A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

### SECCIÓN 12: Información ecológica

- **12.1 Toxicidad**
- **Toxicidad acuática:** No existen más datos relevantes disponibles.
- **12.2 Persistencia y degradabilidad** No existen más datos relevantes disponibles.
- **12.3 Potencial de bioacumulación** No existen más datos relevantes disponibles.
- **12.4 Movilidad en el suelo** No existen más datos relevantes disponibles.
- **Indicaciones medioambientales adicionales:**
- **Indicaciones generales:** No se tiene conocimiento de que represente un peligro para el agua.
- **12.5 Resultados de la valoración PBT y mPmB**
- **PBT:** No aplicable.
- **mPmB:** No aplicable.
- **12.6 Otros efectos adversos** No existen más datos relevantes disponibles.

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### SECCIÓN 13: Consideraciones relativas a la eliminación

- **13.1 Métodos para el tratamiento de residuos**
- **Recomendación:** No debe desecharse con la basura doméstica. No debe llegar al alcantarillado.
- **Embalajes sin limpiar:**
- **Recomendación:** Eliminar conforme a las disposiciones oficiales.

### SECCIÓN 14: Información relativa al transporte

- |                                                                                               |               |
|-----------------------------------------------------------------------------------------------|---------------|
| · <b>14.1 Número ONU</b>                                                                      |               |
| · <b>ADR, IMDG, IATA</b>                                                                      | suprimido     |
| · <b>14.2 Designación oficial de transporte de las Naciones Unidas</b>                        |               |
| · <b>ADR, IMDG, IATA</b>                                                                      | suprimido     |
| · <b>14.3 Clase(s) de peligro para el transporte</b>                                          |               |
| · <b>ADR, ADN, IMDG, IATA</b>                                                                 |               |
| · <b>Clase</b>                                                                                | suprimido     |
| · <b>14.4 Grupo de embalaje</b>                                                               |               |
| · <b>ADR, IMDG, IATA</b>                                                                      | suprimido     |
| · <b>14.5 Peligros para el medio ambiente:</b>                                                | No aplicable. |
| · <b>14.6 Precauciones particulares para los usuarios</b>                                     | No aplicable. |
| · <b>14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y el Código IBC</b> | No aplicable. |
| · <b>"Reglamentación Modelo" de la UNECE:</b>                                                 | suprimido     |

### SECCIÓN 15: Información reglamentaria

- **15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia o la mezcla**
- **Directiva 2012/18/UE**
- **Sustancias peligrosas nominadas - ANEXO I** ninguno de los componentes está incluido en una lista
- **Directiva 2011/65/UE sobre restricciones a la utilización de determinadas sustancias peligrosas en aparatos eléctricos y electrónicos - Anexo II**
- ninguno de los componentes está incluido en una lista
- **REGLAMENTO (UE) 2019/1148**
- **Anexo I - PRECURSORES DE EXPLOSIVOS RESTRINGIDOS (Valor límite superior a efectos de la concesión de licencias con arreglo al artículo 5, apartado 3)**
- ninguno de los componentes está incluido en una lista
- **Anexo II - PRECURSORES DE EXPLOSIVOS NOTIFICABLES**
- ninguno de los componentes está incluido en una lista
- **Reglamento (CE) no 273/2004 sobre precursores de drogas**
- ninguno de los componentes está incluido en una lista

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· **Reglamento (CE) N o 111/2005 por el que establecen normas para la vigilancia del comercio de precursores de drogas entre la Comunidad y terceros países**

ninguno de los componentes está incluido en una lista

· **15.2 Evaluación de la seguridad química:** Una evaluación de la seguridad química no se ha llevado a cabo.

### **SECCIÓN 16: Otra información**

Los datos se fundan en el estado actual de nuestros conocimientos, pero no constituyen garantía alguna de cualidades del producto y no generan ninguna relación jurídica contractual.

· **Abreviaturas y acrónimos:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Toxicidad aguda – Categoría 4

Skin Irrit. 2: Corrosión o irritación cutáneas – Categoría 2