

## SAFETY DATA SHEET IMMERSION OIL

According to Regulation (EC) No 1907/2006

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name IMMERSION OIL  
Product No. PL.396  
Container size 50 ml

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

Identified uses For use in oil immersion microscopy.

#### 1.3. Details of the supplier of the safety data sheet

Supplier Pro-Lab Diagnostics  
3 Bassendale Road  
Wirral  
Merseyside  
CH62 3QL  
Tel: 0151 353 1613  
Fax: 0151 353 1614  
mowen@pro-lab.com

#### 1.4. Emergency telephone number

+44 (0)151 353 1613 Monday to Friday 9.00 to 17.00  
+44 (0)7714 429 646 outside the above hours

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xn;R22. Carc. Cat. 3;R40. N;R50/53.

##### Human health

Harmful if swallowed. Limited evidence of a carcinogenic effect. Carcinogen Category 3.

##### Environment

The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

#### 2.2. Label elements

Contains BENZYL BENZOATE  
CHLOROPARAFFIN WAX 64 C

##### Labelling



Harmful



Dangerous for the environment

##### Risk Phrases

R22	Harmful if swallowed.
R40	Limited evidence of a carcinogenic effect.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Safety Phrases

S36/37	Wear suitable protective clothing and gloves.
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

# IMMERSION OIL

## 2.3. Other hazards

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

<b>BENZYL BENZOATE</b>	<b>30-60%</b>
CAS-No.: 120-51-4	EC No.: 204-402-9
Classification (EC 1272/2008) Acute Tox. 4 - H302 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R22 N;R51/53
<b>CHLOROPARAFFIN WAX 64 C</b>	<b>60-100%</b>
CAS-No.: 63449-39-8	EC No.: 264-150-0
Classification (EC 1272/2008) Carc. 2 - H351 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) Carc. Cat. 3;R40. N;R50/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

##### General information

CAUTION! First aid personnel must be aware of own risk during rescue! Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give liquid to an unconscious person. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Perform artificial respiration if breathing has stopped.

##### Inhalation

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

##### Ingestion

Do not induce vomiting. Rinse mouth thoroughly. Get medical attention immediately!

##### Skin contact

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues. Take off contaminated clothing and wash before reuse.

##### Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

##### Inhalation.

In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

##### Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting.

##### Skin contact

May cause irritation on prolonged or repeated contact.

##### Eye contact

May irritate eyes.

#### 4.3. Indication of any immediate medical attention and special treatment needed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

# IMMERSION OIL

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### **Extinguishing media**

Extinguish with foam, carbon dioxide or dry powder.

#### **Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

#### **Hazardous combustion products**

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### **Unusual Fire & Explosion Hazards**

No unusual fire or explosion hazards noted.

#### **Specific hazards**

In case of fire, toxic fumes or vapours may be formed.

### 5.3. Advice for firefighters

#### **Special Fire Fighting Procedures**

No specific fire fighting procedure given.

#### **Protective equipment for fire-fighters**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Do not let washing down water contaminate ponds or waterways.

Wash thoroughly after dealing with a spillage. Wash spillage site well with water and detergent, be aware of the potential for surfaces to become slippery.

### 6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

For waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Avoid inhalation of vapours and spray mists.

Wash hands after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in closed original container at temperatures between 15°C and 25°C. Moisture. Keep away from combustible materials. Protect from sunlight.

#### **Storage Class**

Chemical storage.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### **Ingredient Comments**

No exposure limits noted for ingredient(s).

# IMMERSION OIL

## 8.2. Exposure controls

### **Engineering measures**

Provide adequate general and local exhaust ventilation.

### **Respiratory equipment**

If ventilation is insufficient, suitable respiratory protection must be provided. Wear suitable respiratory protection when vapours or mists are generated and there is inadequate ventilation or extraction.

### **Hand protection**

Use protective gloves made of: Butyl rubber. or Nitrile. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

### **Eye protection**

Wear approved safety goggles.

### **Other Protection**

Wear suitable protective clothing as protection against splashing or contamination. Provide eyewash station and safety shower. If risk of splashing, wear safety goggles or face shield.

### **Hygiene measures**

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Appearance</b>	Liquid
<b>Colour</b>	Colourless to pale yellow.
<b>Odour</b>	Aromatic.
<b>Solubility</b>	Immiscible with water Soluble in: xylene / toluene.
<b>Initial boiling point and boiling range</b>	> 200°C 760 mm Hg
<b>Relative density</b>	0.94 @ 20°C
<b>Vapour pressure</b>	< 0.1 hPa @ 20°C

### 9.2. Other information

<b>Refractive Index</b>	1.5110 to 1.5188
-------------------------	------------------

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No specific reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

#### **Hazardous Polymerisation**

Will not polymerise.

### 10.4. Conditions to avoid

Avoid contact with strong oxidisers.

### 10.5. Incompatible materials

#### **Materials To Avoid**

Strong oxidising substances.

### 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### **Other Health Effects**

Carcinogen Category 3.

# IMMERSION OIL

## Acute toxicity:

### **Acute Toxicity (Oral LD50)**

> 10000 mg/kg Rat

Miscellaneous suppliers' information.

### **Acute Toxicity (Inhalation LC50)**

> 4.7 mg/l (vapours) Rat 4 hours

Miscellaneous suppliers' information.

## **Inhalation**

Vapours may irritate throat and respiratory system and cause coughing.

## **Ingestion**

Harmful if swallowed. May cause discomfort if swallowed.

## **Skin contact**

May cause irritation on prolonged or repeated contact.

## **Eye contact**

Slightly irritating.

## **Specific effects**

Contains a substance/a group of substances which may cause cancer.

### Toxicological information on ingredients.

#### BENZYL BENZOATE (CAS: 120-51-4)

## Acute toxicity:

### **Acute Toxicity (Oral LD50)**

500 mg/kg Rat

ESIS

### **Acute Toxicity (Dermal LD50)**

4000 mg/kg Rat

ESIS

#### CHLOROPARAFFIN WAX 64 C (CAS: 63449-39-8)

## Acute toxicity:

### **Acute Toxicity (Oral LD50)**

> 11700 mg/kg Rat

REACH dossier information

### **Acute Toxicity (Dermal LD50)**

Scientifically unjustified.

REACH dossier information

### **Acute Toxicity (Inhalation LC50)**

Scientifically unjustified.

REACH dossier information

## SECTION 12: ECOLOGICAL INFORMATION

### **Ecotoxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### **12.1. Toxicity**

#### **Acute Toxicity - Fish**

LC50 96 hours 1000 mg/l Pimephales promelas (Fat-head Minnow)

Miscellaneous suppliers' information.

# IMMERSION OIL

## Ecological information on ingredients.

### BENZYL BENZOATE (CAS: 120-51-4)

#### **Acute Toxicity - Fish**

LC0 96 hours 1.9 mg/l Brachydanio rerio (Zebra Fish)  
ECB/ESIS

### CHLOROPARAFFIN WAX 64 C (CAS: 63449-39-8)

#### **Acute Toxicity - Fish**

LC50 96 hours > 770 mg/l Onchorhynchus mykiss (Rainbow trout)  
REACH dossier information

#### **Acute Toxicity - Aquatic Invertebrates**

EC0 48 hours 5.1 mg/l Daphnia magna  
REACH dossier information

#### **Acute Toxicity - Aquatic Plants**

EC50 72 hours > 3.2 mg/l Freshwater algae  
REACH dossier information

## 12.2. Persistence and degradability

### **Degradability**

The product is slowly degradable. The product has not proven to be degradable under anaerobic conditions.

## 12.3. Bioaccumulative potential

### **Bioaccumulative potential**

Low bioaccumulation potential.

## 12.4. Mobility in soil

### **Mobility:**

The product is insoluble in water.

## 12.5. Results of PBT and vPvB assessment

Not determined.

## 12.6. Other adverse effects

Not determined.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN number

UN No. (ADR/RID/ADN)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082

### 14.2. UN proper shipping name

**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROPARAFFIN WAX 64 C)

### 14.3. Transport hazard class(es)

<b>ADR/RID/ADN Class</b>	9
<b>ADR/RID/ADN Class</b>	Class 9: Miscellaneous dangerous substances and articles.
<b>ADR Label No.</b>	9

## IMMERSION OIL

IMDG Class	9
ICAO Class/Division	9
Transport Labels	



### 14.4. Packing group

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



### 14.6. Special precautions for user

EMS	F-A, S-F
Emergency Action Code	+3Z
Hazard No. (ADR)	90
Tunnel Restriction Code	(E)

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### **Statutory Instruments**

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

#### **Approved Code Of Practice**

Classification and Labelling of Substances and Preparations Dangerous for Supply.

#### **Guidance Notes**

Workplace Exposure Limits EH40.

#### **EU Legislation**

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

#### **Revision Comments**

Supplier's contact details amended. Reissued according to Regulation (EU) No 453/2010.

## IMMERSION OIL

**Revision Date** 12-2011  
**Revision** 3  
**Supersedes date** 02-2009  
**SDS No.** 10648  
**Safety Data Sheet Status** Approved.

### **Risk Phrases In Full**

R22 Harmful if swallowed.  
R40 Limited evidence of a carcinogenic effect.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### **Hazard Statements In Full**

H302 Harmful if swallowed.  
H351 Suspected of causing cancer.  
H411 Toxic to aquatic life with long lasting effects.  
H410 Very toxic to aquatic life with long lasting effects.  
H400 Very toxic to aquatic life.