SAFETY DATA SHEET

In accordance with 453/2010 and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)

Issued: 2016-02-11
Replaces issue: Not applicable

This Safety Data Sheet is based on the Safety Data Sheet, issued 2014-06-19 from the manufacturer of the immersion oil IO Type 300:

Company: Cargille Laboratories
55 Commerce Road
NJ 07009 Cedar Grove
USA

Telephone: +973 239-6633
E-Mail: Cargillelabs@aol.com
Website: www.cargille.com

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

1.1 Product identifier
Trade name: CellaVision Oil Pack
Cat. No.: XU-10135-01 (2x150 ml)
XU-10135-02 (1x150 ml)
Contents: IO Type 300 Immersion Oil

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Microscope Immersion Oil

1.3 Details of the supplier of the safety data sheet

Company: CellaVision AB
Ideon Science Park
SE-223 70 Lund
Sweden

Telephone: +46-(0)46-286 44 00
E-Mail: info@cellavision.com
Website: www.cellavision.com

1.4 Emergency telephone number
In case of emergency contact toxicological information, emergency tel 112 (within Europe) or 911 (for USA and Canada). For other countries, use the built-in emergency number in your cell phone.
For non-emergency poison information, see:
http://www.who.int/ipcs/poisons/centre/directory/euro/en/

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with 1272/2008
Upon assessment, this mixture is not classified as hazardous according to 1272/2008.

Classification in accordance with 1999/45/EG
Upon assessment this product is not classified as hazardous.
2.2 Label elements

**Label information in accordance with 1272/2008**
- Hazard pictograms: Not applicable
- Signal words: Not applicable
- Hazard statements: Not applicable

**Label information in accordance with 1999/45/EG**
See Section 16.

2.3 Other hazards
Not relevant

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product consists of a homogeneous liquid mixture.

3.2 Mixtures

Note that the table shows known hazards of the ingredients in a pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

<table>
<thead>
<tr>
<th>Constituent</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINERAL OIL</td>
<td></td>
<td>30 – 50%</td>
</tr>
<tr>
<td>CAS No</td>
<td>8042-47-5</td>
<td></td>
</tr>
<tr>
<td>EC No</td>
<td>232-455-8</td>
<td>;-</td>
</tr>
<tr>
<td>HYDROGENATED TERPHENYL</td>
<td></td>
<td>30 – 50%</td>
</tr>
<tr>
<td>CAS No</td>
<td>61788-32-7</td>
<td>;-</td>
</tr>
<tr>
<td>EC No</td>
<td>262-967-7</td>
<td>;-</td>
</tr>
<tr>
<td>POLYBUTENE</td>
<td></td>
<td>15 – 30%</td>
</tr>
<tr>
<td>CAS No</td>
<td>9003-29-6</td>
<td></td>
</tr>
<tr>
<td>EC No</td>
<td>500-004-7</td>
<td>;-</td>
</tr>
<tr>
<td>TERPHENYL</td>
<td></td>
<td>5 – 9%</td>
</tr>
<tr>
<td>CAS No</td>
<td>26410-60-3</td>
<td></td>
</tr>
<tr>
<td>EC No</td>
<td>247-477-3</td>
<td>;-</td>
</tr>
</tbody>
</table>

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complement used in the calculation of the hazards of this mixture, see Section 16b

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

**Upon breathing in**
- Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical advice.
- Administer oxygen if required.

**Upon contact with the eyes**
- Flush eyes immediately with lukewarm water for 15 – 20 minutes with wide-open eyes. Seek medical attention at once.

**Upon skin contact**
- Remove contaminated clothes.
- Wash the skin with soap and water.

**Upon ingestion**
- DO NOT induce vomiting.
- Contact a doctor.
4.2 Most important symptoms and effects, both acute and delayed
Information on symptoms are ambiguous or missing for this product.

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

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Extinguish with water mist, powder, carbon dioxide or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture
Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

5.3 Advice for fire-fighters
In case of fire use a respirator mask.
Protective measures should be taken regarding other material at the site of the fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Use recommended safety equipment, see section 8.
Ensure good ventilation.
Avoid contact with skin and eyes.

6.2 Environmental precautions
Avoid emissions into soil, water or air.
Avoid discharge into sewers.

6.3 Methods and material for containment and cleaning up
Absorb the liquid with an inert absorbent, vermiculite, for example. Collect the material for disposal at a waste disposal facility.
Contaminated products should be treated as chemical waste and declared as non-hazardous goods.

6.4 Reference to other sections
Not applicable

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Do not inhale the fumes and avoid exposure to skin, eyes and clothing.
Store this product separately from food items and keep it out of the reach of children and pets.
Do not eat, drink or smoke in premises where this product is stored.

7.2 Conditions for safe storage, including any incompatibilities
Store in closed package at normal room temperature.
Handle in premises which have modern ventilation standards.
Store in a well-ventilated space.
Emergency showers and eye-rinsing facilities must be available at the workplace.
Do not store in direct sunlight.
Store only in the original package.
7.3 Specific end uses
Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 National limit values, United States
All ingredients (cf. Section 3) lack occupational exposure limit values.

8.2 Exposure controls
In terms of minimizing risks, attention must be paid to the physical hazards (see Sections 2 and 10) of this product according to EU directives 89/391 and 98/24 and national occupational legislation.
Use protective glasses, safety goggles, or a visor.
Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks.
Special measures for protection of the skin are necessary only in rare working situations. In case of doubt, consult occupational expertise. Show this safety data sheet.
Use proper protective breathing equipment in case of insufficient ventilation.
For limitation of environmental exposure, see Section 12.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Appearance</td>
<td>Form: liquid</td>
</tr>
<tr>
<td>b) Odour</td>
<td>Colour: light yellow</td>
</tr>
<tr>
<td>c) Odour threshold</td>
<td>Weak smell characteristic</td>
</tr>
<tr>
<td>d) pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>e) Melting point/freezing point</td>
<td>0 °C</td>
</tr>
<tr>
<td>f) Initial boiling point and boiling range</td>
<td>340 °C at atmospheric pressure (101325 Pa)</td>
</tr>
<tr>
<td>g) Flash point</td>
<td>&gt;165°C</td>
</tr>
<tr>
<td>h) Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>i) Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>j) Upper/lower flammability or explosive limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>k) Vapour pressure</td>
<td>0.10 kPa</td>
</tr>
<tr>
<td>l) Vapour density</td>
<td>1.00</td>
</tr>
<tr>
<td>m) Relative density</td>
<td>0.9 kg/L</td>
</tr>
<tr>
<td>n) Solubility</td>
<td>Not applicable</td>
</tr>
<tr>
<td>o) Partition coefficient: n-octanol/water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>p) Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>q) Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>r) Viscosity</td>
<td>300 cSt</td>
</tr>
<tr>
<td>s) Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>t) Oxidising properties</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

9.2 Other information
No data available
SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
The product contains no substances which can lead to hazardous reactions at normal use.

10.2 Chemical stability
The product is stable at normal storage and handling conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known.

10.4 Conditions to avoid
Protect from heat.

10.5 Incompatible materials
Avoid contact with oxidizers.

10.6 Hazardous decomposition products
Carbon monoxide (CO), carbon dioxide (CO₂) and harmful and irritating substances.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
General or unspecific toxicity
The product is not classified as toxic.

Acute effects
Not classified as an acutely toxic substance.

Harmfulness
The product is not classified as harmful to health.

Carcinogenicity
To the best of our knowledge, no carcinogenic effects have been reported for this product.

CMR effects
To the best of our knowledge, no mutagenic or otherwise genetic or reproductive toxic effects have been reported for this product.

Corrosive and irritating effects
The product is not corrosive. Minor irritation cannot be ruled out for persons who are prone/susceptible.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Information about the effects on the environment is not available.

12.2 Persistence and degradability
There is no information regarding persistence or degradability.

12.3 Bioaccumulative potential
There is no information regarding bioaccumulation.

12.4 Mobility in soil
Information about mobility in nature is not available

12.5 Results of PBT and vPvB assessment
No chemical safety report has been executed.
12.6 Other adverse effects
Not indicated

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste handling for the product
Discarded products must be disposed of as hazardous waste in accordance with regulations. Not completely empty packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely empty packaging can be recycled. Avoid discharge into sewers. Observe local regulations. Cf. also national waste regulations.

Recycling of the product
Residual, old or contaminated product should be disposed of at a waste management facility.

Transportation of waste
Not indicated

SECTION 14: TRANSPORT INFORMATION

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1 UN number
Not classified as dangerous goods

14.2. UN proper shipping name
Not applicable

14.3 Transport hazard class(es)
Not applicable

14.4 Packing group
Not applicable

14.5 Environmental hazards
Not applicable

14.6 Special precautions for user
Not applicable

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
Not applicable.

15.2 Chemical safety assessment
Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.
SECTION 16: OTHER INFORMATION

16a Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions: Not applicable

16b Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combust Liq</td>
<td>Combustible liquids with flash points &gt; 93 C</td>
</tr>
<tr>
<td>No tox haz</td>
<td>Not classified as toxic</td>
</tr>
<tr>
<td>No env haz</td>
<td>Not classified as being environmentally hazardous</td>
</tr>
<tr>
<td>No phys haz</td>
<td>Non-assigned physical hazard</td>
</tr>
</tbody>
</table>

Explanations of the abbreviations in Section 14

- ADR: European Agreement concerning the International Transport of Dangerous Goods by Road
- RID: Regulations concerning the International Transport of Dangerous Goods by Rail
- AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Dangerous Goods Code
- ICAO: International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)
- IATA: The International Air Transport Association

16c Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2014-06-19. Where such data was lacking, on the second hand the documentation on which this official classification is based was used, e.g. IUCLID (International Uniform Chemical Information Database). On the third hand, information was used from reputable international chemical suppliers, and on the fourth hand from other available information, e.g. safety data sheets from other suppliers or information from non-profit associations, whereby the reliability of the source was judged by an expert. If, in spite of this, reliable information was not found, the hazards were judged by expert opinions based on the known properties of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

- **89/391**: COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
16d Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

The calculation of the hazards of this mixture has been performed as an evaluation by applying a weight of evidence determination using expert judgment in accordance with 1272/2008 Annex I, weighing all available information having a bearing on the determination of the hazards of the mixture, and in accordance with 1907/2006 Annex XI.

16e List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

16f Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product is not expected to cause severe harm to humans or the environment. However the manufacturer, the distributor or the supplier cannot be responsible for unusual or criminal use of the product.

Other relevant information

Label information in accordance with 1999/45/EG

<table>
<thead>
<tr>
<th>Hazard symbol</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-phrases</td>
<td>Not applicable</td>
</tr>
<tr>
<td>S-phrases</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Product facts that are not mentioned elsewhere in this document

The information supplied is based on the data available to us and is believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to this information presented and CellaVision AB assumes no responsibility for the results of the use of this product. This information is furnished upon the condition that the persons responsible for its use shall make their own determination of the suitability of the material for their particular purpose. Please note that we consider the English version to be the authoritative version for compliance and regulatory purposes.

Editorial information

This safety data sheet has been generated by the program KemRisk®, KemRisk Sweden AB, Teknikringen 10, SE-583 30 Linköping, Sweden.