



# Cargille Immersion Oil

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Revision Date: 01/05/2024 Date of Issue: 17/08/2016 Supersedes Date: 17/08/2016 Version: 2.0

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

#### 1.1. Product Identifier

**Product Form** : Mixture  
**Product Name** : Cargille Immersion Oil  
**Product Code** : Type NVH, Catalog #16485

#### 1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

##### 1.2.1. Relevant Identified Uses

**Use of the Substance/Mixture** : Conditions of Intended Use: (ABBR. C.I.U.) As a Microscope Immersion Oil at normal room pressure 101,32 kPa (760 mm Hg), temperature 7°C to 40°C in a non misted / non airborne state in a room having normal air changes (2) / HR., in a trained and supervised laboratory / industrial setting using standard Good Laboratory/Good Manufacturing procedures.

Note: Product normally sold in ¼ oz (7,4cc), 1 oz (30cc), 4 oz (120cc), 16 oz (480cc), and gallon (3,78L) quantities. Used in single drop to a few cubic centimeters per application. See requisitioner for specific quantities involved.

##### 1.2.2. Uses Advised Against

No additional information available

#### 1.3. Details of the Supplier of the Safety Data Sheet

Cargille Laboratories  
55 Commerce Road  
Cedar Grove, NJ 07009-1289  
T 973-239-6633

Website: [www.cargille.com](http://www.cargille.com)  
email: [Technical@Cargille.com](mailto:Technical@Cargille.com)

#### 1.4. Emergency Telephone Number

**Emergency Number** : VelocityEHS  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### Classification According to Regulation (EC) No. 1272/2008

Skin Irrit. 2 H315  
Aquatic Acute 1 H400  
Aquatic Chronic 1 H410

Full text of hazard classes, H- and EUH-statements: see section 16

#### 2.2. Label Elements

##### Labelling According to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard Pictograms (CLP)



##### Signal Word (CLP)

: Warning

##### Hazard Statements (CLP)

: H315 - Causes skin irritation.  
H410 - Very toxic to aquatic life with long lasting effects.

##### Precautionary Statements (CLP)

: P264 - Wash hands, forearms and face thoroughly after handling.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves, protective clothing, eye protection.  
P302+P352 - IF ON SKIN: Wash with plenty of water.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P391 - Collect spillage.

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P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other Hazards

**Other Hazards Not Contributing to the Classification** : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Component	
Hydrogenated terphenyls (61788-32-7)	This substance meets the vPvB criteria of REACH regulation, annex XIII

The substance/mixture does not contain substance(s) equal to or greater than 0.1% by weight that are present in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
Butene, homopolymer	(CAS-No.) 9003-29-6 (EC-No.) 500-004-7	60 – 80	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Asp. Tox. 1, H304
Hydrogenated terphenyls substance listed as REACH Candidate (Terphenyl, hydrogenated) substance with national workplace exposure limit(s) (AT, BE, BG, CY, DE, DK, EE, ES, FI, FR, GB, GI, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK, NO, CH); substance with a Community workplace exposure limit; vPvB substance	(CAS-No.) 61788-32-7 (EC-No.) 262-967-7	10 – 20	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Polyphenyls, quater- and higher, partially hydrogenated	(CAS-No.) 68956-74-1 (EC-No.) 273-316-1	1 – 5	Not classified.
Terphenyls substance with national workplace exposure limit(s) (AT, BE, DK, ES, FI, FR, GB, GR, HR, IE, PT, NO, CH)	(CAS-No.) 26140-60-3 (EC-No.) 247-477-3	0.5 – 5	Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Full text of H- and EUH-statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

- First-Aid Measures General** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-Aid Measures After Inhalation** : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
- First-Aid Measures After Skin Contact** : Remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
- First-Aid Measures After Eye Contact** : Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
- First-Aid Measures After Ingestion** : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

- Symptoms/Effects** : Causes skin irritation.
- Symptoms/Effects After Inhalation** : Prolonged exposure may cause irritation.
- Symptoms/Effects After Skin Contact** : Redness, pain, swelling, itching, burning, dryness, and dermatitis.
- Symptoms/Effects After Eye Contact** : May cause slight irritation to eyes.
- Symptoms/Effects After Ingestion** : Ingestion may cause adverse effects.
- Chronic Symptoms** : None known.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

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## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing Media

- Suitable Extinguishing Media** : Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.  
**Unsuitable Extinguishing Media** : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### 5.2. Special Hazards Arising From the Substance or Mixture

- Fire Hazard** : Not considered flammable but may burn at high temperatures.  
**Explosion Hazard** : Product is not explosive.  
**Reactivity** : Hazardous reactions will not occur under normal conditions.  
**Hazardous Combustion Products** : Carbon oxides (CO, CO<sub>2</sub>).

### 5.3. Advice for Firefighters

- Precautionary Measures Fire** : Exercise caution when fighting any chemical fire.  
**Firefighting Instructions** : Use water spray or fog for cooling exposed containers.  
**Protection During Firefighting** : Do not enter fire area without proper protective equipment, including respiratory protection.  
**Other Information** : Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

- General Measures** : Avoid breathing (vapour, mist, spray). Avoid all contact with skin, eyes, or clothing.

#### 6.1.1. For Non-Emergency Personnel

- Protective Equipment** : Use appropriate personal protective equipment (PPE).  
**Emergency Procedures** : Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

- Protective Equipment** : Equip cleanup crew with proper protection.  
**Emergency Procedures** : Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

### 6.3. Methods and Materials for Containment and Cleaning Up

- For Containment** : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.  
**Methods for Cleaning Up** : Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

- Precautions for Safe Handling** : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray).  
**Hygiene Measures** : Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

- Technical Measures** : Comply with applicable regulations.  
**Storage Conditions** : Store in accordance with applicable national storage class systems. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.  
**Incompatible Materials** : Strong acids, strong bases, strong oxidisers.

### 7.3. Specific End Use(s)

Conditions of Intended Use: (ABBR. C.I.U.) As a Microscope Immersion Oil at normal room pressure 101,32 kPa (760 mm Hg), temperature 7°C to 40°C in a non misted / non airborne state in a room having normal air changes (2) / HR., in a trained and supervised laboratory / industrial setting using standard Good Laboratory/Good Manufacturing procedures.

Note: Product normally sold in ¼ oz (7,4cc), 1 oz (30cc), 4 oz (120cc), 16 oz (480cc), and gallon (3,78L) quantities. Used in single drop to a few cubic centimeters per application. See requisitioner for specific quantities involved.

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

Hydrogenated terphenyls (61788-32-7)		
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	19 mg/m <sup>3</sup>
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	2 ppm
EU	IOELV STEL (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	48 mg/m <sup>3</sup>
EU	IOELV STEL (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	5 ppm
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	19 mg/m <sup>3</sup> (all isomers)
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	2 ppm (all isomers)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	48 mg/m <sup>3</sup> (all isomers)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	5 ppm (all isomers)
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	5 mg/m <sup>3</sup>
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	0,5 ppm
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	48 mg/m <sup>3</sup>
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	5 ppm
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	19 mg/m <sup>3</sup>
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	2 ppm
Bulgaria	OEL STEL (Legal Basis:Reg. No. 13/10)	48 mg/m <sup>3</sup>
Bulgaria	OEL STEL (Legal Basis:Reg. No. 13/10)	5 ppm
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	19 mg/m <sup>3</sup>
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	2 ppm
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	48 mg/m <sup>3</sup>
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	5 ppm
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	19 mg/m <sup>3</sup>
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	2 ppm
Cyprus	OEL STEL (Legal Basis:KDP 16/2019)	48 mg/m <sup>3</sup>
Cyprus	OEL STEL (Legal Basis:KDP 16/2019)	5 ppm
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	4,4 mg/m <sup>3</sup>
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	0,4 ppm
Denmark	OEL STEL (Legal Basis:BEK No. 698 of 28/05/2020)	48 mg/m <sup>3</sup>
Denmark	OEL STEL (Legal Basis:BEK No. 698 of 28/05/2020)	5 ppm
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	19 mg/m <sup>3</sup>
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	2 ppm
Estonia	OEL STEL (Legal Basis:Regulation No. 105)	48 mg/m <sup>3</sup>
Estonia	OEL STEL (Legal Basis:Regulation No. 105)	5 ppm
Estonia	OEL Chemical Category (Legal Basis:Regulation No. 105)	Skin notation
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	10 mg/m <sup>3</sup>
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	30 mg/m <sup>3</sup>
France	OEL STEL (Legal Basis:INRS ED 984)	48 mg/m <sup>3</sup> (indicative limit)
France	OEL STEL (Legal Basis:INRS ED 984)	5 ppm (indicative limit)
France	OEL TWA (Legal Basis:INRS ED 984)	19 mg/m <sup>3</sup>
France	OEL TWA (Legal Basis:INRS ED 984)	2 ppm
Germany	OEL TWA (Legal Basis:TRGS 900)	19 mg/m <sup>3</sup> (inhalable fraction)
Germany	OEL TWA (Legal Basis:TRGS 900)	2 ppm
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	19 mg/m <sup>3</sup>
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	2 ppm
Gibraltar	OEL STEL (Legal Basis:LN. 2018/181)	48 mg/m <sup>3</sup>
Gibraltar	OEL STEL (Legal Basis:LN. 2018/181)	5 ppm
Greece	OEL TWA (Legal Basis:PWHSE)	19 mg/m <sup>3</sup>
Greece	OEL TWA (Legal Basis:PWHSE)	2 ppm
Greece	OEL STEL (Legal Basis:PWHSE)	48 mg/m <sup>3</sup>
Greece	OEL STEL (Legal Basis:PWHSE)	5 ppm
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	19 mg/m <sup>3</sup>
Hungary	OEL STEL (Legal Basis:Decree No. 05/2020)	48 mg/m <sup>3</sup>
Ireland	OEL TWA (Legal Basis:2020 COP)	19 mg/m <sup>3</sup>

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<b>Ireland</b>	OEL TWA (Legal Basis:2020 COP)	2 ppm
<b>Ireland</b>	OEL STEL (Legal Basis:2020 COP)	48 mg/m <sup>3</sup>
<b>Ireland</b>	OEL STEL (Legal Basis:2020 COP)	5 ppm
<b>USA ACGIH</b>	OEL TWA (Legal Basis:IMDFN1)	0,5 ppm (nonirradiated)
<b>Italy</b>	OEL TWA (Legal Basis:Decree 81)	19 mg/m <sup>3</sup>
<b>Italy</b>	OEL TWA (Legal Basis:Decree 81)	2 ppm
<b>Latvia</b>	OEL TWA (Legal Basis:Reg. No. 325)	19 mg/m <sup>3</sup>
<b>Latvia</b>	OEL TWA (Legal Basis:Reg. No. 325)	2 ppm
<b>Lithuania</b>	OEL TWA (Legal Basis:HN 23:2011)	19 mg/m <sup>3</sup>
<b>Lithuania</b>	OEL TWA (Legal Basis:HN 23:2011)	2 ppm
<b>Lithuania</b>	OEL STEL (Legal Basis:HN 23:2011)	48 mg/m <sup>3</sup>
<b>Lithuania</b>	OEL STEL (Legal Basis:A-N 684)	5 ppm
<b>Luxembourg</b>	OEL TWA (Legal Basis:A-N 684)	19 mg/m <sup>3</sup>
<b>Luxembourg</b>	OEL TWA (Legal Basis:A-N 684)	2 ppm
<b>Luxembourg</b>	OEL STEL (Legal Basis:A-N 684)	48 mg/m <sup>3</sup>
<b>Luxembourg</b>	OEL STEL (Legal Basis:A-N 684)	5 ppm
<b>Malta</b>	OEL TWA (Legal Basis:MOHSAA Ch. 424)	19 mg/m <sup>3</sup>
<b>Malta</b>	OEL TWA (Legal Basis:MOHSAA Ch. 424)	2 ppm
<b>Malta</b>	OEL STEL (Legal Basis:MOHSAA Ch. 424)	48 mg/m <sup>3</sup>
<b>Malta</b>	OEL STEL (Legal Basis:MOHSAA Ch. 424)	5 ppm
<b>Netherlands</b>	OEL TWA (Legal Basis:OWCRLV)	19 mg/m <sup>3</sup>
<b>Netherlands</b>	OEL TWA (Legal Basis:OWCRLV)	2 ppm
<b>Netherlands</b>	OEL STEL (Legal Basis:OWCRLV)	48 mg/m <sup>3</sup>
<b>Netherlands</b>	OEL STEL (Legal Basis:OWCRLV)	5 ppm
<b>Norway</b>	OEL TWA (Legal Basis:FOR-2020-04-06-695)	19 mg/m <sup>3</sup>
<b>Norway</b>	OEL TWA (Legal Basis:FOR-2020-04-06-695)	2 ppm
<b>Norway</b>	OEL STEL (Legal Basis:FOR-2020-04-06-695)	48 mg/m <sup>3</sup> (value from the regulation)
<b>Norway</b>	OEL STEL (Legal Basis:FOR-2020-04-06-695)	5 ppm (value from the regulation)
<b>Poland</b>	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	12,5 mg/m <sup>3</sup>
<b>Poland</b>	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	48 mg/m <sup>3</sup>
<b>Portugal</b>	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	19 mg/m <sup>3</sup> (indicative limit value)
<b>Portugal</b>	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	2 ppm (indicative limit value)
<b>Portugal</b>	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	48 mg/m <sup>3</sup> (indicative limit value)
<b>Portugal</b>	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	5 ppm (indicative limit value)
<b>Romania</b>	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	19 mg/m <sup>3</sup> (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
<b>Romania</b>	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	2 ppm
<b>Romania</b>	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	48 mg/m <sup>3</sup> (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
<b>Romania</b>	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	5 ppm
<b>Slovakia</b>	OEL TWA (Legal Basis:Gov. Decree 33/2018)	10 mg/m <sup>3</sup>
<b>Slovakia</b>	OEL TWA (Legal Basis:Gov. Decree 33/2018)	2 ppm
<b>Slovakia</b>	OEL STEL (Legal Basis:Gov. Decree 33/2018)	48 mg/m <sup>3</sup>
<b>Slovenia</b>	OEL TWA (Legal Basis:No. 79/19)	19 mg/m <sup>3</sup>
<b>Slovenia</b>	OEL TWA (Legal Basis:No. 79/19)	2 ppm
<b>Slovenia</b>	OEL STEL (Legal Basis:No. 79/19)	48 mg/m <sup>3</sup>
<b>Slovenia</b>	OEL STEL (Legal Basis:No. 79/19)	5 ppm
<b>Spain</b>	OEL TWA (Legal Basis:OELCAIS)	20 mg/m <sup>3</sup>
<b>Spain</b>	OEL TWA (Legal Basis:OELCAIS)	2 ppm
<b>Spain</b>	OEL STEL (Legal Basis:OELCAIS)	50 mg/m <sup>3</sup>
<b>Spain</b>	OEL STEL (Legal Basis:OELCAIS)	5 ppm
<b>Sweden</b>	OEL TLV (Legal Basis:AFS 2018:1)	19 mg/m <sup>3</sup>
<b>Sweden</b>	OEL TLV (Legal Basis:AFS 2018:1)	2 ppm
<b>Sweden</b>	OEL STEL (Legal Basis:AFS 2018:1)	48 mg/m <sup>3</sup>
<b>Sweden</b>	OEL STEL (Legal Basis:AFS 2018:1)	5 ppm
<b>Switzerland</b>	OEL STEL (Legal Basis:OLVSNAIF)	48 mg/m <sup>3</sup> (all isomers)
<b>Switzerland</b>	OEL STEL (Legal Basis:OLVSNAIF)	5 ppm (all isomers)
<b>Switzerland</b>	OEL TWA (Legal Basis:OLVSNAIF)	19 mg/m <sup>3</sup> (all isomers)

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Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	2 ppm (all isomers)
<b>Terphenyls (26140-60-3)</b>		
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	4,5 mg/m <sup>3</sup> (all isomers)
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	0,5 ppm (all isomers)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	4,5 mg/m <sup>3</sup> (all isomers)
Austria	OEL STEL (Legal Basis:BGBl. II Nr. 254/2018)	0,5 ppm (all isomers)
Austria	OEL Ceiling (Legal Basis:BGBl. II Nr. 254/2018)	4,5 mg/m <sup>3</sup>
Austria	OEL Ceiling (Legal Basis:BGBl. II Nr. 254/2018)	0,5 ppm
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	5 mg/m <sup>3</sup>
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	0,53 ppm
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	4,8 mg/m <sup>3</sup>
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	0,5 ppm
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	5 mg/m <sup>3</sup> (Terphenyls)
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	0,5 ppm (Terphenyls)
Denmark	OEL STEL (Legal Basis:BEK No. 698 of 28/05/2020)	10 mg/m <sup>3</sup> (Terphenyls)
Denmark	OEL STEL (Legal Basis:BEK No. 698 of 28/05/2020)	1 ppm (Terphenyls)
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	10 mg/m <sup>3</sup>
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	30 mg/m <sup>3</sup>
France	OEL STEL (Legal Basis:INRS ED 984)	5 mg/m <sup>3</sup>
France	OEL STEL (Legal Basis:INRS ED 984)	0,5 ppm
Greece	OEL TWA (Legal Basis:PWHS)	5 mg/m <sup>3</sup>
Greece	OEL TWA (Legal Basis:PWHS)	0,5 ppm
Greece	OEL STEL (Legal Basis:PWHS)	5 mg/m <sup>3</sup>
Greece	OEL STEL (Legal Basis:PWHS)	0,5 ppm
Ireland	OEL STEL (Legal Basis:2020 COP)	5 mg/m <sup>3</sup> (inhalable fraction and vapour)
Ireland	OEL STEL (Legal Basis:2020 COP)	0,5 ppm
USA ACGIH	OEL Ceiling (Legal Basis:IMDFN1)	5 mg/m <sup>3</sup>
Norway	OEL Ceiling (Legal Basis:FOR-2020-04-06-695)	4,5 mg/m <sup>3</sup>
Norway	OEL Ceiling (Legal Basis:FOR-2020-04-06-695)	0,5 ppm
Portugal	OEL Ceiling (Legal Basis:Portuguese Norm NP 1796:2014)	5 mg/m <sup>3</sup>
Spain	OEL STEL (Legal Basis:OELCAIS)	5 mg/m <sup>3</sup>
Spain	OEL STEL (Legal Basis:OELCAIS)	0,52 ppm
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	5 mg/m <sup>3</sup>
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,5 ppm

## 8.2. Exposure Controls

### Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.



### Materials for Protective Clothing

: Chemically resistant materials and fabrics.

### Hand Protection

: Wear protective gloves.

### Eye Protection

: Safety glasses with side-shields. Chemical safety goggles.

### Skin and Body Protection

: Wear suitable protective clothing.

### Respiratory Protection

: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

### Other Information

: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

#### Physical State

: Liquid

# Cargille Immersion Oil

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Colour, Appearance	: Light Yellow
Odour	: Slight characteristic odour
Odour Threshold	: No data available
pH	: No data available
Evaporation Rate	: ca 1 (Mineral oil = 1)
Melting Point	: < 0 °C
Freezing Point	: No data available
Boiling Point	: 340 °C
Flash Point	: > 163 °C (Open cup)
Auto-Ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability	: Not applicable
Vapour Pressure	: 13,3322 Pa (< 0.1 mm Hg)
Relative Vapour Density At 20°C	: ca 1 (Air = 1)
Relative Density	: 0,9 (Water = 1)
Solubility	: Water: Nil
Partition Coefficient n-Octanol/Water	: No data available
Viscosity	: 21000 cSt @ 23 °C
Explosive Properties	: No data available
Oxidising Properties	: No data available
Explosive Limits	: No data available
Particle Aspect Ratio	: Not applicable
Particle Aggregation State	: Not applicable
Particle Agglomeration State	: Not applicable
Particle Specific Surface Area	: Not applicable
Particle Dustiness	: Not applicable

### 9.2. Other Information

No additional information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerisation will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidisers.

### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Hazard Classes As Defined In Regulation (EC) No 1272/2008

Likely Routes of Exposure	: Dermal, Eye Contact, Inhalation, Oral
Acute Toxicity (Oral)	: Not classified. (Based on available data, the classification criteria are not met)
Acute Toxicity (Dermal)	: Not classified. (Based on available data, the classification criteria are not met)
Acute Toxicity (Inhalation)	: Not classified. (Based on available data, the classification criteria are not met)

Butene, homopolymer (9003-29-6)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
LC50 Inhalation Rat	> 19171 mg/m <sup>3</sup> (Exposure time: 4 h Source: ECHA_API)
LC50 Inhalation Rat	> 4185 ppm/4h
Hydrogenated terphenyls (61788-32-7)	
LD50 Oral Rat	> 10000 mg/kg (Source: EPA_HP)V)
LD50 Dermal Rabbit	> 2000 mg/kg (Source: ECHA_API)
LC50 Inhalation Rat	> 4,7 mg/l/4h

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<b>Terphenyls (26140-60-3)</b>	
LD50 Oral Rat	> 5000 mg/kg (Source: EPA_HPVS)
LD50 Dermal Rabbit	> 5000 mg/kg (Source: ECHA_API)
LC50 Inhalation Rat	> 3,8 mg/l/4h

<b>Skin Corrosion/Irritation</b>	: Causes skin irritation.
<b>Eye Damage/Irritation</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Respiratory or Skin Sensitisation</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Germ Cell Mutagenicity</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Carcinogenicity</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Reproductive Toxicity</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Specific Target Organ Toxicity (Single Exposure)</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Aspiration Hazard</b>	: Not classified. (Based on available data, the classification criteria are not met)
<b>Symptoms/Injuries After Inhalation</b>	: Prolonged exposure may cause irritation.
<b>Symptoms/Injuries After Skin Contact</b>	: Redness, pain, swelling, itching, burning, dryness, and dermatitis.
<b>Symptoms/Injuries After Eye Contact</b>	: May cause slight irritation to eyes.
<b>Symptoms/Injuries After Ingestion</b>	: Ingestion may cause adverse effects.
<b>Chronic Symptoms</b>	: None known.

### 11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Hazardous To The Aquatic Environment, Short-Term (Acute)</b>	: Very toxic to aquatic life.
<b>Hazardous To The Aquatic Environment, Long-Term (Chronic)</b>	: Very toxic to aquatic life with long lasting effects.

<b>Butene, homopolymer (9003-29-6)</b>	
EC50 - Crustacea [1]	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>Hydrogenated terphenyls (61788-32-7)</b>	
LC50 - Fish [1]	> 0,53 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: IUCLID)
EC50 - Crustacea [1]	> 1,34 mg/l
LC50 - Fish [2]	> 0,53 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: IUCLID)
<b>Terphenyls (26140-60-3)</b>	
LC50 - Fish [1]	> 0,11 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	0,04 mg/l (Exposure time: 48 h - Species: Daphnia magna) Data Specific to o-Terphenyl.
LC50 - Fish [2]	> 0,11 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [2]	0,02 mg/l (Exposure time: 48 h - Species: Daphnia magna) Data Specific to m-Terphenyl.
NOEC chronic fish	0,04 mg/l (Duration: 34 d - Species: Pimephales promelas)

### 12.2. Persistence and Degradability

<b>Cargille Immersion Oil</b>	
<b>Persistence and Degradability</b>	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

<b>Cargille Immersion Oil</b>	
<b>Bioaccumulative Potential</b>	Not established.
<b>Butene, homopolymer (9003-29-6)</b>	
<b>Partition coefficient n-octanol/water (Log Pow)</b>	7,6 – 7,8 (at 20 °C (at pH 7))

### 12.4. Mobility in Soil

No additional information available

### 12.5. Results of PBT and vPvB Assessment

<b>Component</b>
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# Cargille Immersion Oil

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<b>Hydrogenated terphenyls (61788-32-7)</b>	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII
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### 12.6. Endocrine Disrupting Properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

### 12.7. Other Adverse Effects

**Other Information** : Avoid release to the environment.






## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste Treatment Methods

- Sewage Disposal Recommendations** : Do not dispose of waste into sewer. Do not empty into drains.
- Product/Packaging Disposal Recommendations** : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
- Ecology - Waste Materials** : Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN Number or ID Number</b>				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
<b>14.2. UN Proper Shipping Name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Terphenyls)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS : Hydrogenated terphenyls ; Terphenyls)	Environmentally hazardous substance, liquid, n.o.s. (CONTAINS : Hydrogenated terphenyls ; Terphenyls)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Terphenyls)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Terphenyls)
<b>14.3. Transport Hazard Class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing Group</b>				
III	III	III	III	III
<b>14.5. Environmental Hazards</b>				
Dangerous for the environment : Yes Not regulated when carried in single or combination packagings containing a net quantity per single or inner	Dangerous for the environment : Yes Marine pollutant : Yes Not regulated when packaged in single or combination packagings containing a net quantity per	Dangerous for the environment : Yes Not regulated when carried in single or combination packaging containing a net quantity of 5 L or less. (see special provision	Dangerous for the environment : Yes Not regulated when carried in single or combination packagings containing a net quantity per single or inner packaging of 5	Dangerous for the environment : Yes Not regulated when carried in single or combination packagings containing a net quantity per single or inner packaging of 5

# Cargille Immersion Oil

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
packaging of 5 L or less. (See special provision 375)	single or inner packaging of 5 L or less. (See 2.10.2.7)	A197)	L or less. (See special provision 375)	L or less. (See special provision 375)

### 14.6. Special Precautions For User

No additional information available

### 14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### 15.1.1. EU-Regulations

##### 15.1.1.1. REACH Annex XVII Information

Listed on REACH Annex XVII (Restriction Conditions). The following restrictions are applicable:

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Cargille Immersion Oil ; Butene, homopolymer
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Cargille Immersion Oil ; Hydrogenated terphenyls ; Terphenyls
3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Hydrogenated terphenyls ; Terphenyls

##### 15.1.1.2. REACH Candidate List Information

Contains substance(s) listed on the REACH Candidate List in concentrations  $\geq 0.1\%$  or SCL: Terphenyl, hydrogenated (EC 262-967-7, CAS 61788-32-7)

##### 15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### 15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### 15.1.1.5. REACH Annex XIV Information

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### 15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

##### 15.1.1.7. EC Inventory Information

###### Hydrogenated terphenyls (61788-32-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

###### Polyphenyls, quater- and higher, partially hydrogenated (68956-74-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

###### Terphenyls (26140-60-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

##### 15.1.1.8. Other Information

No additional information available

#### 15.1.2. National Regulations

No additional information available

#### 15.1.3. International Inventory Lists

##### Butene, homopolymer (9003-29-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on the Canadian DSL (Domestic Substances List)

Listed on the EU NLP (No Longer Polymers) inventory

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

# Cargille Immersion Oil

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Listed on the NCI (Vietnam - National Chemical Inventory) Listed on Thailand Existing Chemicals Inventory (DIW)
<b>Hydrogenated terphenyls (61788-32-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the Canadian DSL (Domestic Substances List) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory) Listed on Thailand Existing Chemicals Inventory (DIW)
<b>Polyphenyls, quater- and higher, partially hydrogenated (68956-74-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the Canadian DSL (Domestic Substances List) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory)
<b>Terphenyls (26140-60-3)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on the Canadian DSL (Domestic Substances List) Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on KECL/KECI (Korean Existing Chemicals Inventory) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on the Japanese ISHL (Industrial Safety and Health Law) Listed on INSQ (Mexican National Inventory of Chemical Substances) Listed on the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory) Listed on Thailand Existing Chemicals Inventory (DIW)

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

## SECTION 16: OTHER INFORMATION

**Date of Preparation or Latest Revision** : 01/05/2024

**Data Sources** : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

**Other Information** : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

#### Full Text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Irrit. 2	Skin corrosion/irritation, Category 2

#### Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2	Calculation method
Aquatic Acute 1	Expert judgement

# Cargille Immersion Oil

## Safety Data Sheet

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Aquatic Chronic 1

Calculation method

### Indication of Changes

Review of data in Section 9. Updated Language Section 4, 5 and 6.

### Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists  
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road  
ATE - Acute Toxicity Estimate  
BCF - Bioconcentration Factor  
BEI - Biological Exposure Indices (BEI)  
BOD – Biochemical Oxygen Demand  
CAS No. - Chemical Abstracts Service Number  
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008  
COD – Chemical Oxygen Demand  
EC – European Community  
EC50 - Median Effective Concentration  
EEC – European Economic Community  
EINECS – European Inventory of Existing Commercial Chemical Substances  
EmS-No. (Fire) - IMDG Emergency Schedule Fire  
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage  
EU – European Union  
ErC50 - EC50 in Terms of Reduction Growth Rate  
GHS – Globally Harmonized System of Classification and Labeling of Chemicals  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IBC Code - International Bulk Chemical Code  
IMDG - International Maritime Dangerous Goods  
IPRV - Ilgalaikio Poveikio Ribinis Dydis  
IOELV – Indicative Occupational Exposure Limit Value  
LC50 - Median Lethal Concentration  
LD50 - Median Lethal Dose  
LOAEL - Lowest Observed Adverse Effect Level  
LOEC - Lowest-Observed-Effect Concentration  
Log Koc - Soil Organic Carbon-water Partitioning Coefficient  
Log Kow - Octanol/water Partition Coefficient  
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water  
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration  
MARPOL - International Convention for the Prevention of Pollution

NDS - Najwyższe Dopuszczalne Stezenie  
NDSch - Najwyższe Dopuszczalne Stezenie Chwilowe  
NDSP - Najwyższe Dopuszczalne Stezenie Pulapowe  
NOAEL - No-Observed Adverse Effect Level  
NOEC - No-Observed Effect Concentration  
NRD - Nevirsytinas Ribinis Dydis  
NTP – National Toxicology Program  
OEL - Occupational Exposure Limits  
PBT - Persistent, Bioaccumulative and Toxic  
PEL - Permissible Exposure Limit  
pH – Potential Hydrogen  
REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals  
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SADT - Self Accelerating Decomposition Temperature  
SDS - Safety Data Sheet  
STEL - Short Term Exposure Limit  
STOT - Specific Target Organ Toxicity  
TA-Luft - Technische Anleitung zur Reinhaltung der Luft  
TEL TRK – Technical Guidance Concentrations  
ThOD – Theoretical Oxygen Demand  
TLM - Median Tolerance Limit  
TLV - Threshold Limit Value  
TPRD - Trumpalaikio Poveikio Ribinis Dydis  
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern  
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine  
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte  
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte  
TSCA - Toxic Substances Control Act  
TWA - Time Weighted Average  
VOC – Volatile Organic Compounds  
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración  
VLA-ED - Valor Límite Ambiental Exposición Diaria  
VLE – Valeur Limite D'exposition  
VME – Valeur Limite De Moyenne Exposition  
vPvB - Very Persistent and Very Bioaccumulative  
WEL – Workplace Exposure Limit  
WGK - Wassergefährdungsklasse

### Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)  
AU\_WES: Australia WES  
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)  
EC\_RAR: European Commission Renewal Assessment Report  
EC\_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits  
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports  
ECHA\_API: European Chemicals Agency API  
ECHA\_RAC: ECHA Committee for Risk Assessment  
EFSA: European Food Safety Authority  
EPA: U.S. Environmental Protection Agency  
EPA\_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)  
EPA\_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)  
EPA\_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)  
EPA\_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)  
EU\_CLH: European Union Harmonised Classification and Labelling Proposal  
EU\_RAR: European Union Risk Assessment Report

FOOD\_JOURN: Food Research Journal (1956)  
IARC: The International Agency for Research on Cancer  
IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles  
IUCLID: International Uniform Chemical Information Database  
JAPAN\_GHS: Japan GHS Basis for Classification Data  
JP\_J-CHECK: Japan J-Check  
KR\_NIER: South Korea National Institute of Environmental Research Evaluations  
NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme  
NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)  
NLM\_CIP: National Library of Medicine ChemID plus database  
NLM\_HSDDB: National Library of Medicine Hazardous Substance Data Bank  
NLM\_PUBMED: National Library of Medicine PubMed database  
NTP: National Toxicology Program  
NZ\_CCID: New Zealand Chemical Classification and Information Database  
OECD\_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)  
OECD\_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)  
WHO: World Health Organization

### Limit Value Legal Basis\*

# Cargille Immersion Oil

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\*Includes the below and any related regulations/provisions, and subsequent amendments

**EU - 2019/1831 EU in accor. with 98/24/EC** - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.

**EU - 2019/1243/EU, and 98/24/EC** - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.

**Austria - BGBl. II Nr. 254/2018** - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBl. II) No 119/2004) & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.

**Austria - BLV BGBl. II Nr. 254/2018** - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018

**Belgium - Royal Decree 21/01/2020** - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)

**Bulgaria - Reg. No. 13/10** -

Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex No 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020

**Croatia - OG No. 91/2018** - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018

**Cyprus - KDP 16/2019** - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.

**Czech Republic - Reg. 41/2020** - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended

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**Latvia - Reg. No. 325** - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.

**Lithuania - HN 23:2011** - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.

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**Poland - Dz. U. 2020 Nr. 61** - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.

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**Romania - Gov. Dec. No 1.218** - Governmental Decision No. 1.218 from 06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.

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**Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

**Sweden - AFS 2018:1** - Statute Book of the Swedish Work Environment Authority, AFS 2018:1

The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values

**Switzerland - OLVSNAIF** - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of

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## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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**Germany - TRGS 903** - Biological Threshold Limits (BGW-Values), Technical MAK Values.  
Rules for Dangerous Substances, latest amendment March, 2020

**Gibraltar - LN. 2018/131** - Factories (Control of Chemical Agents at Work)  
Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN.  
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