SAFETY DATA SHEET

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

This Safety Data Sheet is based on the Cargille Immersion Oil Safety Data Sheet, revision date 2024-04-26, date of issue 2023-08-29, supersedes date: 2023-08-29, version 2.0.

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Website	www.cargille.com

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

1.1 Product identifier

Trade name	**Article number**
CellaVision Oil Pack, 2 x 150 ml	XU-10135-01
CellaVision Oil Pack, 1 x 150 ml	XU-10135-02
Immersion oil, 50 ml	XU-10319

Contents: Cargille Immersion Oil Type 300

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

Conditions of Intended Use: As a Microscope Immersion Oil at normal room pressure 101.32 kPa (760 mm Hg), temperature 7–40 °C (45–104 °F) 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. Used in single drop to a few cubic centimeters per application.

Uses advised against: Contact manufacturer

1.3 Details of the supplier of the safety data sheet

Company	CellaVision AB Mobilvägen 12 SE-223 62 Lund Sweden
Telephone	+46-(0)46 460 16 00
Website	www.cellavision.com

1.4 Emergency telephone number

	Contact	Emergency number	Comment
Europe	Toxicological information	112	
USA and Canada	Toxicological information	911	
New Zealand	National Poison Centre, Dunedin	0800 764 766	24 hours helpline, http://www.poisons.co.nz/
	Roche Diagnostics NZ. Ltd.	0800 652 634 then follow voice prompt	Mon to Fri – 8.30 am to 5.00 pm
Other countries	Toxicological information	Use the built-in emergency number in your cell phone.	

New Zealand importer:

Roche Diagnostics NZ Ltd
ANZ Raranga Building, Level 1, Sylvia Park
286 Mount Wellington Highway
Mount Wellington, Auckland 1060, New Zealand
Tel: +64 9 2764157
Email: rdnz.logistics@roche.com

Malaysia importer:

Sysmex (Malaysia) Sdn Bhd
Level 15, Subplace Boulevard Pusat
Komersil Vestland, No. 6, Jalan Juruanalisis U1/35
Seksyen U1, 40150 Shah Alam
Selangor, Malaysia
Tel: +60 (3) 5870 5288

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

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

Hazard pictogram

Signal word:	Warning.
Hazard statement:	H315 - Causes skin irritation.
Precautionary statements:	P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear eye protection, protective clothing, protective gloves. 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.

Hazard pictogram

Signal word:	Warning
Hazard statement:	H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements:	P273 - Avoid release to the environment. P391 - Collect spillage. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Labeling of packages where the contents do not exceed 125 ml, according to section 1.5.2 of the Regulation (EC) No 1272/2008.

Hazard pictogram

Signal word:	Warning
Hazard statement:	None
Precautionary statements:	None

2.3 Other hazards

Other hazards not contributing to the classification: Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Component	
Hydrogenated terphenyls (CAS 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.

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Components		
CAS No 8042-47-5 EC No 232-455-8;265-148-2	White mineral oil, petroleum substance with national workplace exposure limit(s) Asp. Tox. 1, H304	15–40%
CAS No 61788-32-7 EC No 262-967-7	Hydrogenated terphenyls substance listed as REACH Candidate (Terphenyl, hydrogenated) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	15–40%
CAS No 9003-29-6 EC No 500-004-7	Butene, homopolymer Flam. Liq. 2, H225 Skin Irrit. 2, H315 Asp. Tox. 1, H304	10–30%

Components		
CAS No 68956-74-1 EC No 273-316-1	Polyphenyls, quater- and higher, partially hydrogenated Not classified	1–5%
CAS No 26140-60-3 EC No 247-477-3	Terphenyls substance with national workplace exposure limit(s) Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	0.5–1.5%

Additional information: For the wording of the listed Hazard Statements, refer to section 16.

4 FIRST AID MEASURES

4.1 Description of 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).

After inhalation:

- When symptoms occur: go into open air and ventilate suspected area.
- Obtain medical attention if breathing difficulty persists.

After skin contact:

- Remove contaminated clothing.
- Immediately drench affected area with soap and water for at least 15 minutes.
- Obtain medical attention if irritation develops or persists.

After eye contact:

- Remove contact lenses, if present and easy to do.
- Continue rinsing.
- Obtain medical attention if irritation develops or persists.
- Rinse cautiously with water for at least 15 minutes.

After ingestion:

- Rinse mouth.
- Do NOT induce vomiting.
- Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General:

- 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.

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

- Water spray
- Fog
- Carbon dioxide (CO2)
- Alcohol-resistant foam
- Dry chemical

For safety reasons 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, CO2).

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.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

General measures:

- Spilled product presents a slipping hazard.
- 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 recognize 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. Section 13 for disposal considerations.
- Section 13 for disposal considerations.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Additional hazards when processed:

- Spilled material may present a slipping hazard.

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 (vapor, 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 oxidizers.

7.3 Specific end use(s)

(ABBR. C.I.U.) As a Microscope Immersion Oil at normal room pressure 101.32 hPa (760 mm Hg), temperature 7 °C to 40 °C (45 °F to 104 °F) 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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

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.

White mineral oil, petroleum (8042-47-5)		
Germany	OEL TWA (Legal Basis:TRGS 900)	5 mg/m³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-respirable fraction)
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	5 mg/m³
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	5 mg/m³ (mist)
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	5 mg/m³
Slovenia	OEL TWA (Legal Basis:No. 79/19)	5 mg/m³ (respirable fraction)
Slovenia	OEL STEL (Legal Basis:No. 79/19)	20 mg/m³ (respirable fraction)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	5 mg/m³ (inhalable dust)

Hydrogenated terphenyls (61788-32-7)		
EU	IOELV TWA (Legal Basis:2019/1831 EU in accor. with 98/24/EC)	19 mg/m³
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/m³
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/m³ (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/m³ (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/m³
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/m³
Belgium	OEL STEL (Legal Basis:Royal Decree 21/01/2020)	5 ppm
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	19 mg/m³
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	2 ppm
Bulgaria	OEL STEL (Legal Basis:Reg. No. 13/10)	48 mg/m³
Bulgaria	OEL STEL (Legal Basis:Reg. No. 13/10)	5 ppm
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	19 mg/m³
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	2 ppm
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	48 mg/m³

Hydrogenated terphenyls (61788-32-7)		
Croatia	OEL STEL (Legal Basis:OG No. 91/2018)	5 ppm
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	19 mg/m³
Cyprus	OEL TWA (Legal Basis:KDP 16/2019)	2 ppm
Cyprus	OEL STEL (Legal Basis:KDP 16/2019)	48 mg/m³
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/m³
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/m³
Denmark	OEL STEL (Legal Basis:BEK No. 698 of 28/05/2020)	5 ppm
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	19 mg/m³
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	2 ppm
Estonia	OEL STEL (Legal Basis:Regulation No. 105)	48 mg/m³
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/m³
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	30 mg/m³
France	OEL STEL (Legal Basis:INRS ED 984)	48 mg/m³ (indicative limit)
France	OEL STEL (Legal Basis:INRS ED 984)	5 ppm (indicative limit)
France	OEL TWA (Legal Basis:INRS ED 984)	19 mg/m³
France	OEL TWA (Legal Basis:INRS ED 984)	2 ppm
Germany	OEL TWA (Legal Basis:TRGS 900)	19 mg/m³ (inhalable fraction)
Germany	OEL TWA (Legal Basis:TRGS 900)	2 ppm
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	19 mg/m³
Gibraltar	OEL TWA (Legal Basis:LN. 2018/181)	2 ppm
Gibraltar	OEL STEL (Legal Basis:LN. 2018/181)	48 mg/m³
Gibraltar	OEL STEL (Legal Basis:LN. 2018/181)	5 ppm
Greece	OEL TWA (Legal Basis:PWHSE)	19 mg/m³
Greece	OEL TWA (Legal Basis:PWHSE)	2 ppm
Greece	OEL STEL (Legal Basis:PWHSE)	48 mg/m³

Hydrogenated terphenyls (61788-32-7)		
Greece	OEL STEL (Legal Basis:PWHSE)	5 ppm
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	19 mg/m³
Hungary	OEL STEL (Legal Basis:Decree No. 05/2020)	48 mg/m³
Ireland	OEL TWA (Legal Basis:2020 COP)	19 mg/m³
Ireland	OEL TWA (Legal Basis:2020 COP)	2 ppm
Ireland	OEL STEL (Legal Basis:2020 COP)	48 mg/m³
Ireland	OEL STEL (Legal Basis:2020 COP)	5 ppm
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	0,5 ppm (nonirradiated)
Italy	OEL TWA (Legal Basis:Decree 81)	19 mg/m³
Italy	OEL TWA (Legal Basis:Decree 81)	2 ppm
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	19 mg/m³
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	2 ppm
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	19 mg/m³
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	2 ppm
Lithuania	OEL STEL (Legal Basis:HN 23:2011)	48 mg/m³
Lithuania	OEL STEL (Legal Basis:A-N 684)	5 ppm
Luxembourg	OEL TWA (Legal Basis:A-N 684)	19 mg/m³
Luxembourg	OEL TWA (Legal Basis:A-N 684)	2 ppm
Luxembourg	OEL STEL (Legal Basis:A-N 684)	48 mg/m³
Luxembourg	OEL STEL (Legal Basis:A-N 684)	5 ppm
Malta	OEL TWA (Legal Basis:MOHSAA Ch. 424)	19 mg/m³
Malta	OEL TWA (Legal Basis:MOHSAA Ch. 424)	2 ppm
Malta	OEL STEL (Legal Basis:MOHSAA Ch. 424)	48 mg/m³
Malta	OEL STEL (Legal Basis:MOHSAA Ch. 424)	5 ppm
Netherlands	OEL TWA (Legal Basis:OWCRLV)	19 mg/m³
Netherlands	OEL TWA (Legal Basis:OWCRLV)	2 ppm
Netherlands	OEL STEL (Legal Basis:OWCRLV)	48 mg/m³
Netherlands	OEL STEL (Legal Basis:OWCRLV)	5 ppm
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	19 mg/m³

Hydrogenated terphenyls (61788-32-7)		
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	2 ppm
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	48 mg/m³ (value from the regulation)
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	5 ppm (value from the regulation)
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	12,5 mg/m³
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	48 mg/m³
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	19 mg/m³ (indicative limit value)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	2 ppm (indicative limit value)
Portugal	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	48 mg/m³ (indicative limit value)
Portugal	OEL STEL (Legal Basis:Portuguese Norm NP 1796:2014)	5 ppm (indicative limit value)
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	19 mg/m³ (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	2 ppm
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	48 mg/m³ (for gaseous or vapor phase chemicals, the limit value is expressed at 20°C and 101.3 kPa)
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	5 ppm
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	10 mg/m³
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	2 ppm
Slovakia	OEL STEL (Legal Basis:Gov. Decree 33/2018)	48 mg/m³
Slovenia	OEL TWA (Legal Basis:No. 79/19)	19 mg/m³
Slovenia	OEL TWA (Legal Basis:No. 79/19)	2 ppm
Slovenia	OEL STEL (Legal Basis:No. 79/19)	48 mg/m³
Slovenia	OEL STEL (Legal Basis:No. 79/19)	5 ppm
Spain	OEL TWA (Legal Basis:OELCAIS)	20 mg/m³
Spain	OEL TWA (Legal Basis:OELCAIS)	2 ppm
Spain	OEL STEL (Legal Basis:OELCAIS)	50 mg/m³
Spain	OEL STEL (Legal Basis:OELCAIS)	5 ppm
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	19 mg/m³
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	2 ppm

Hydrogenated terphenyls (61788-32-7)		
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	48 mg/m³
Sweden	OEL STEL (Legal Basis:AFS 2018:1)	5 ppm
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	48 mg/m³ (all isomers)

Hydrogenated terphenyls (61788-32-7)		
Switzerland	OEL STEL (Legal Basis:OLVSNAIF)	5 ppm (all isomers)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	19 mg/m³ (all isomers)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	2 ppm (all isomers)

Terphenyls (26140-60-3)		
Austria	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	4,5 mg/m³ (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/m³ (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/m³
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/m³
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/m³
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/m³ (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/m³ (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/m³
Finland	OEL STEL (Legal Basis:HTP-ARVOT 2020)	30 mg/m³
France	OEL STEL (Legal Basis:INRS ED 984)	5 mg/m³
France	OEL STEL (Legal Basis:INRS ED 984)	0,5 ppm
Greece	OEL TWA (Legal Basis:PWHSE)	5 mg/m³
Greece	OEL TWA (Legal Basis:PWHSE)	0,5 ppm

Terphenyls (26140-60-3)		
Greece	OEL STEL (Legal Basis:PWHSE)	5 mg/m³
Greece	OEL STEL (Legal Basis:PWHSE)	0,5 ppm
Ireland	OEL STEL (Legal Basis:2020 COP)	5 mg/m³ (inhalable fraction and vapour)
Ireland	OEL STEL (Legal Basis:2020 COP)	0,5 ppm
USA ACGIH	OEL Ceiling (Legal Basis:IMDFN1)	5 mg/m³
Norway	OEL Ceiling (Legal Basis:FOR-2020-04-06-695)	4,5 mg/m³
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/m³
Spain	OEL STEL (Legal Basis:OELCAIS)	5 mg/m³
Spain	OEL STEL (Legal Basis:OELCAIS)	0,52 ppm
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	5 mg/m³
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,5 ppm

8.2 Exposure 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:

- Chemical goggles or safety glasses. 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.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Color, appearance:	Colorless to light yellow
Odor:	Slight
Odor threshold:	No data available
pH:	Not applicable
Evaporation rate:	≈ 1 (mineral oil = 1)
Melting point:	<0 °C
Freezing point:	<0 °C
Boiling point:	≈ 340 °C at 101,325 pascals (760 mm Hg)
Flash point:	163 °C (Open Cup)
Auto/Self-ignition temperature:	217,5 °C (Butene, homopolymer CAS-No. 9003-29-6)
Decomposition temperature:	No data available
Flammability:	Not applicable
Vapor pressure:	< 13,33 Pa (<0.1 mm Hg)
Relative vapor density At 20°C:	No data available
Relative density:	0,923 at 25 °C
Solubility:	Water: Not miscible or difficult to mix.
Partition coefficient (n-octanol/water):	No data available
Viscosity:	300 cSt at 23 °C
Explosive properties:	No data available
Oxidizing 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

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, CO2).

11 TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Likely routes of exposure:	Dermal. Inhalation. Eye contact. 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)

White mineral oil, petroleum (8042-47-5)

LD50 Oral Rat: > 5000 mg/kg (Source: IUCLID)

Butene, homopolymer (9003-29-6)

LD50 Oral Rat: > 2000 mg/kg

LD50 Dermal Rat: > 2000 mg/kg

LC50 Inhalation Rat: > 19171 mg/m^3 (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_HPV)

LD50 Dermal Rabbit: > 2000 mg/kg (Source: ECHA_API)

LC50 Inhalation Rat: > 4,7 mg/l/4h

Terphenyls (26140-60-3)

LD50 Oral Rat: > 5000 mg/kg (Source: EPA_HPV)

LD50 Dermal Rabbit: > 5000 mg/kg (Source: ECHA_API)

LC50 Inhalation Rat: > 3,8 mg/l/4h

Skin corrosion/irritation:	Causes skin irritation.
Eye damage/irritation:	Not classified. (Based on available data, the classification criteria are not met)
Respiratory or skin sensitization:	Not classified. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity:	Not classified. (Based on available data, the classification criteria are not met)
Carcinogenicity:	Not classified. (Based on available data, the classification criteria are not met)
Reproductive toxicity:	Not classified. (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure):	Not classified. (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure):	Not classified. (Based on available data, the classification criteria are not met)
Aspiration hazard:	Not classified. (Based on available data, the classification criteria are not met)
Symptoms/injuries after inhalation:	Prolonged exposure may cause irritation.
Symptoms/injuries after skin contact:	Redness, pain, swelling, itching, burning, dryness, and dermatitis.
Symptoms/injuries after eye contact:	May cause slight irritation to eyes.
Symptoms/injuries after ingestion:	Ingestion may cause adverse effects.
Chronic symptoms:	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.

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous to the aquatic environment, short–term (acute):	Very toxic to aquatic life.
Hazardous to the aquatic environment, long–term (chronic):	Very toxic to aquatic life with long lasting effects.

White mineral oil, petroleum (8042-47-5)

LC50 - Fish [1]: > 10000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus)

Butene, homopolymer (9003-29-6)

EC50 - Crustacea [1]: > 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Hydrogenated terphenyls (61788-32-7)

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)

Terphenyls (26140-60-3)

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

Cargille immersion oil

Persistence and degradability:	May cause long-term adverse effects in the environment.

12.3 Bioaccumulative potential

Cargille immersion oil

Bioaccumulative potential:	Not established.

White mineral oil, petroleum (8042-47-5)

Partition coefficient n-octanol/water (log pow):	> 6

Butene, homopolymer (9003-29-6)

Partition coefficient n-octanol/water (log pow):	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

Hydrogenated terphenyls (61788-32-7)

This substance meets the vPvB criteria of REACH regulation, annex XIII.

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

Avoid release to the environment.

12.8 Additional information

No data available.

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:

- Material should be recycled if possible.
- 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.

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
14.1 UN or ID number				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082
14.2 UN proper shipping name				

ADR	IMDG	IATA	ADN	RID
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROGENATED TERPHENYLS ; TERPHENYLS)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROGENATED TERPHENYLS ; TERPHENYLS)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROGENATED TERPHENYLS ; TERPHENYLS)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROGENATED TERPHENYLS ; TERPHENYLS)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROGENATED TERPHENYLS ; TERPHENYLS)
14.3 Transport hazard class(es)				
				
14.4 Packing group				
III	III	III	III	III
14.5 Environmental hazards				
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 L or less. (See special provision 375)	Dangerous for the environment : Yes Marine pollutant : Yes Not regulated when packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less. (See 2.10.2.7)	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 A197)	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 L or less. (See special provision 375)	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 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.

15 REGULATORY INFORMATION

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

15.1.1EU-regulations

REACH Annex XVII information

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

3(a) 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 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	Butene, homopolymer
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 ; White mineral oil, petroleum ; 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 40. Substances classified as flammable	Cargille Immersion Oil ; Hydrogenated terphenyls ; Terphenyls
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	Butene, homopolymer

REACH candidate list information

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

POP (2019/1021) - Persistent organic pollutants information

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

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)

REACH Annex XIV information

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

Substances depleting the ozone layer (1005/2009) information

No additional information available.

EC Inventory Information

White mineral oil, petroleum (8042-47-5)

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

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)

Other information

No additional information available.

15.1.2National regulations

Malaysia: OSHA (Occupational Safety and Health Act) 1994 and relevant regulations.

15.1.3International inventory lists

White mineral oil, petroleum (8042-47-5)

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)

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)

Listed on the NCI (Vietnam - National Chemical Inventory)

Listed on Thailand Existing Chemicals Inventory (DIW)

Hydrogenated terphenyls (61788-32-7)

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)

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

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)

Terphenyls (26140-60-3)

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.

16 OTHER INFORMATION

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. The information supplied is based on 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 Cargille Laboratories assumes no responsibility for the result 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.

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: Calculation method

- Aquatic Chronic 1: Calculation method

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 - Najwyzsze Dopuszczalne Stezenie

NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe NDSP - Najwyzsze 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_HPV: 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_HSDB: 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*

*Includes the below and any related regulations/provisions, and subsequent amendements.

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) & BGBI. 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 № 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 Environmen (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

Czech Republic - Decree No. 107/2013 - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents.

Denmark - BEK No. 698 of 28/05/2020 - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

Estonia - Regulation No. 105 - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.

Finland - HTP-ARVOT 2020 - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1, 2 and 3.

France - INRS ED 984 - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.

France - Decree 2009-1570 - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.

Germany - TRGS 900 - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020

Germany - TRGS 903 - Biological Threshold Limits (BGW-Values), Technical 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. 2012/021, LN. 2015/143, LN. 2018/181.

Greece - PWHSE - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.

Hungary - Decree 05/2020 - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents

Ireland - 2020 COP - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1

Italy - Decree 81 - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020

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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