



Cargille Refractive Index Liquid Series A $n_D = 1.571 - 1.640$

Safety Data Sheet

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

Revision Date: 15/05/2024 Date of Issue: 23/03/2016 Supersedes Date: 01/06/2016 Version: 4.0

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

1.1. Product Identifier

Product Form : Mixture
Product Name : Cargille Refractive Index Liquid Series A $n_D = 1.571 - 1.640$
Product Code : Cat No 18091, 18092, 18095, 1809X, 1809Y, 19095, 19096, 19097

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 : For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As an Optical Refractive Index Liquid at normal room pressure 101,32 kPa (760 mm Hg), temperature 18°C to 40°C in a non misted/non airborne state in a room having a 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 1/4 oz (7,4cc), 1 oz (30cc), 4 oz (120cc), and 16 oz (480cc) 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
USA

T 1+ 973-239-6633

Website: www.cargille.com

email: 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

| | |
|---------------------|------|
| Acute Tox. 4 (Oral) | H302 |
| Eye Irrit. 2 | H319 |
| 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)

: H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary Statements (CLP)

: P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection.

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P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P330 - Rinse mouth.
P337+P313 - If eye irritation persists: Get medical advice/attention.
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.

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 |
|---|--|---------|--|
| Naphthalene, 1-bromo- | (CAS-No.) 90-11-9 (EC-No.) 201-965-2 | 45 – 70 | Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 |
| 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 | 30 – 60 | Aquatic Acute 1, H400 Aquatic Chronic 1, H410 |
| 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 | 1 – 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 : Immediately rinse 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 serious eye irritation. Harmful if swallowed.
Symptoms/Effects After Inhalation : Prolonged exposure may cause irritation.
Symptoms/Effects After Skin Contact : Prolonged exposure may cause skin irritation.
Symptoms/Effects After Eye Contact : Contact causes severe irritation with redness and swelling of the conjunctiva.
Symptoms/Effects After Ingestion : This material is harmful orally and can cause adverse health effects or death in significant amounts.
Chronic Symptoms : None known.

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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.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media

- Suitable Extinguishing Media** : Water spray, fog, carbon dioxide (CO₂), 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, CO₂). Halogenated compounds.

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** : Do not get in eyes, on skin, or on clothing. Avoid breathing (vapour, mist, spray).

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 breathing (vapour, mist, spray). Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing.
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)

For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As an Optical Refractive Index Liquid at normal room pressure 101,32 kPa (760 mm Hg), temperature 18°C to 40°C in a non misted/non airborne state in a room having a normal air changes (2)/ HR., in a trained and supervised laboratory/ industrial setting using standard Good Laboratory/ Good Manufacturing procedures.

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

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 ³ |
| 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 ³ |
| 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 ³ (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 ³ (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 ³ |
| 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 ³ |
| Belgium | OEL STEL (Legal Basis:Royal Decree 21/01/2020) | 5 ppm |
| Bulgaria | OEL TWA (Legal Basis:Reg. No. 13/10) | 19 mg/m ³ |
| Bulgaria | OEL TWA (Legal Basis:Reg. No. 13/10) | 2 ppm |
| Bulgaria | OEL STEL (Legal Basis:Reg. No. 13/10) | 48 mg/m ³ |
| Bulgaria | OEL STEL (Legal Basis:Reg. No. 13/10) | 5 ppm |
| Croatia | OEL TWA (Legal Basis:OG No. 91/2018) | 19 mg/m ³ |
| Croatia | OEL TWA (Legal Basis:OG No. 91/2018) | 2 ppm |
| Croatia | OEL STEL (Legal Basis:OG No. 91/2018) | 48 mg/m ³ |
| Croatia | OEL STEL (Legal Basis:OG No. 91/2018) | 5 ppm |
| Cyprus | OEL TWA (Legal Basis:KDP 16/2019) | 19 mg/m ³ |
| Cyprus | OEL TWA (Legal Basis:KDP 16/2019) | 2 ppm |
| Cyprus | OEL STEL (Legal Basis:KDP 16/2019) | 48 mg/m ³ |
| 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 ³ |
| 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 ³ |
| 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 ³ |
| Estonia | OEL TWA (Legal Basis:Regulation No. 105) | 2 ppm |
| Estonia | OEL STEL (Legal Basis:Regulation No. 105) | 48 mg/m ³ |
| 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 ³ |
| Finland | OEL STEL (Legal Basis:HTP-ARVOT 2020) | 30 mg/m ³ |
| France | OEL STEL (Legal Basis:INRS ED 984) | 48 mg/m ³ (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 ³ |
| France | OEL TWA (Legal Basis:INRS ED 984) | 2 ppm |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 19 mg/m ³ (inhalable fraction) |
| Germany | OEL TWA (Legal Basis:TRGS 900) | 2 ppm |
| Gibraltar | OEL TWA (Legal Basis:LN. 2018/181) | 19 mg/m ³ |
| Gibraltar | OEL TWA (Legal Basis:LN. 2018/181) | 2 ppm |
| Gibraltar | OEL STEL (Legal Basis:LN. 2018/181) | 48 mg/m ³ |
| Gibraltar | OEL STEL (Legal Basis:LN. 2018/181) | 5 ppm |
| Greece | OEL TWA (Legal Basis:PWHSE) | 19 mg/m ³ |
| Greece | OEL TWA (Legal Basis:PWHSE) | 2 ppm |
| Greece | OEL STEL (Legal Basis:PWHSE) | 48 mg/m ³ |
| Greece | OEL STEL (Legal Basis:PWHSE) | 5 ppm |
| Hungary | OEL TWA (Legal Basis:Decree No. 05/2020) | 19 mg/m ³ |

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| | | |
|--------------------|---|--|
| Hungary | OEL STEL (Legal Basis:Decree No. 05/2020) | 48 mg/m ³ |
| Ireland | OEL TWA (Legal Basis:2020 COP) | 19 mg/m ³ |
| Ireland | OEL TWA (Legal Basis:2020 COP) | 2 ppm |
| Ireland | OEL STEL (Legal Basis:2020 COP) | 48 mg/m ³ |
| 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/m ³ |
| Italy | OEL TWA (Legal Basis:Decree 81) | 2 ppm |
| Latvia | OEL TWA (Legal Basis:Reg. No. 325) | 19 mg/m ³ |
| Latvia | OEL TWA (Legal Basis:Reg. No. 325) | 2 ppm |
| Lithuania | OEL TWA (Legal Basis:HN 23:2011) | 19 mg/m ³ |
| Lithuania | OEL TWA (Legal Basis:HN 23:2011) | 2 ppm |
| Lithuania | OEL STEL (Legal Basis:HN 23:2011) | 48 mg/m ³ |
| Lithuania | OEL STEL (Legal Basis:A-N 684) | 5 ppm |
| Luxembourg | OEL TWA (Legal Basis:A-N 684) | 19 mg/m ³ |
| Luxembourg | OEL TWA (Legal Basis:A-N 684) | 2 ppm |
| Luxembourg | OEL STEL (Legal Basis:A-N 684) | 48 mg/m ³ |
| Luxembourg | OEL STEL (Legal Basis:A-N 684) | 5 ppm |
| Malta | OEL TWA (Legal Basis:MOHSAA Ch. 424) | 19 mg/m ³ |
| Malta | OEL TWA (Legal Basis:MOHSAA Ch. 424) | 2 ppm |
| Malta | OEL STEL (Legal Basis:MOHSAA Ch. 424) | 48 mg/m ³ |
| Malta | OEL STEL (Legal Basis:MOHSAA Ch. 424) | 5 ppm |
| Netherlands | OEL TWA (Legal Basis:OWCRLV) | 19 mg/m ³ |
| Netherlands | OEL TWA (Legal Basis:OWCRLV) | 2 ppm |
| Netherlands | OEL STEL (Legal Basis:OWCRLV) | 48 mg/m ³ |
| Netherlands | OEL STEL (Legal Basis:OWCRLV) | 5 ppm |
| Norway | OEL TWA (Legal Basis:FOR-2020-04-06-695) | 19 mg/m ³ |
| Norway | OEL TWA (Legal Basis:FOR-2020-04-06-695) | 2 ppm |
| Norway | OEL STEL (Legal Basis:FOR-2020-04-06-695) | 48 mg/m ³ (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/m ³ |
| Poland | OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61) | 48 mg/m ³ |
| Portugal | OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014) | 19 mg/m ³ (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/m ³ (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/m ³ (for gaseous or vapour 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/m ³ (for gaseous or vapour 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/m ³ |
| Slovakia | OEL TWA (Legal Basis:Gov. Decree 33/2018) | 2 ppm |
| Slovakia | OEL STEL (Legal Basis:Gov. Decree 33/2018) | 48 mg/m ³ |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 19 mg/m ³ |
| Slovenia | OEL TWA (Legal Basis:No. 79/19) | 2 ppm |
| Slovenia | OEL STEL (Legal Basis:No. 79/19) | 48 mg/m ³ |
| Slovenia | OEL STEL (Legal Basis:No. 79/19) | 5 ppm |
| Spain | OEL TWA (Legal Basis:OELCAIS) | 20 mg/m ³ |
| Spain | OEL TWA (Legal Basis:OELCAIS) | 2 ppm |
| Spain | OEL STEL (Legal Basis:OELCAIS) | 50 mg/m ³ |
| Spain | OEL STEL (Legal Basis:OELCAIS) | 5 ppm |
| Sweden | OEL TLV (Legal Basis:AFS 2018:1) | 19 mg/m ³ |
| Sweden | OEL TLV (Legal Basis:AFS 2018:1) | 2 ppm |
| Sweden | OEL STEL (Legal Basis:AFS 2018:1) | 48 mg/m ³ |
| Sweden | OEL STEL (Legal Basis:AFS 2018:1) | 5 ppm |
| Switzerland | OEL STEL (Legal Basis:OLVSNAIF) | 48 mg/m ³ (all isomers) |

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| | | |
|-------------------------|--|---|
| Switzerland | OEL STEL (Legal Basis:OLVSNAIF) | 5 ppm (all isomers) |
| Switzerland | OEL TWA (Legal Basis:OLVSNAIF) | 19 mg/m ³ (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/m ³ (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 ³ (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 ³ |
| 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 ³ |
| 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 ³ |
| 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 ³ (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 ³ (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 ³ |
| Finland | OEL STEL (Legal Basis:HTP-ARVOT 2020) | 30 mg/m ³ |
| France | OEL STEL (Legal Basis:INRS ED 984) | 5 mg/m ³ |
| France | OEL STEL (Legal Basis:INRS ED 984) | 0,5 ppm |
| Greece | OEL TWA (Legal Basis:PWHSE) | 5 mg/m ³ |
| Greece | OEL TWA (Legal Basis:PWHSE) | 0,5 ppm |
| Greece | OEL STEL (Legal Basis:PWHSE) | 5 mg/m ³ |
| Greece | OEL STEL (Legal Basis:PWHSE) | 0,5 ppm |
| Ireland | OEL STEL (Legal Basis:2020 COP) | 5 mg/m ³ (inhalable fraction and vapour) |
| Ireland | OEL STEL (Legal Basis:2020 COP) | 0,5 ppm |
| USA ACGIH | OEL Ceiling (Legal Basis:IMDFN1) | 5 mg/m ³ |
| Norway | OEL Ceiling (Legal Basis:FOR-2020-04-06-695) | 4,5 mg/m ³ |
| 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 ³ |
| Spain | OEL STEL (Legal Basis:OELCAIS) | 5 mg/m ³ |
| Spain | OEL STEL (Legal Basis:OELCAIS) | 0,52 ppm |
| Switzerland | OEL TWA (Legal Basis:OLVSNAIF) | 5 mg/m ³ |
| 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

Hand Protection

Eye Protection

Skin and Body Protection

Respiratory Protection

: Chemically resistant materials and fabrics.

: Wear protective gloves.

: Chemical safety goggles.

: Wear suitable protective clothing.

: 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.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

| | |
|---------------------------------------|-----------------------------|
| Physical State | : Liquid |
| Colour, Appearance | : Yellow |
| Odour | : Moth Ball |
| Odour Threshold | : No data available |
| pH | : No data available |
| Evapouration Rate | : No data available |
| Melting Point | : 5,55 °C |
| Freezing Point | : No data available |
| Boiling Point | : > 230 °C |
| Flash Point | : > 113 °C (Closed Cup) |
| Auto-Ignition Temperature | : No data available |
| Decomposition Temperature | : No data available |
| Flammability | : Not applicable |
| Vapour Pressure | : 133,32 pascals (1 mm Hg) |
| Relative Vapour Density At 20°C | : < 2,2 (air = 1) |
| Relative Density | : 1,22 (water = 1) |
| Solubility | : Water: Slight |
| Partition Coefficient n-Octanol/Water | : No data available |
| Viscosity | : 22 cSt @20 °C |
| Explosive Properties | : Product is not explosive. |
| 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, CO₂). Bromine compounds.

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) | : Harmful if swallowed. |
| 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) |
| Cargille Refractive Index Liquid Series A n _D = 1,571 - 1,640 | |
| ATE CLP (oral) | 833,33 mg/kg bodyweight |
| 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 |

Cargille Refractive Index Liquid Series A n_D = 1.571 - 1.640

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| | |
|---------------------------------|---------------------------------|
| Naphthalene, 1-bromo- (90-11-9) | |
| ATE CLP (oral) | 500,00 mg/kg bodyweight |
| Terphenyls (26140-60-3) | |
| LD50 Oral Rat | > 5000 mg/kg (Source: EPA_HP V) |
| LD50 Dermal Rabbit | > 5000 mg/kg (Source: ECHA_API) |
| LC50 Inhalation Rat | > 3,8 mg/l/4h |

| | |
|--|---|
| Skin Corrosion/Irritation | : Not classified. (Based on available data, the classification criteria are not met) |
| Eye Damage/Irritation | : Causes serious eye irritation. |
| Respiratory or Skin Sensitisation | : 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 | : Prolonged exposure may cause skin irritation. |
| Symptoms/Injuries After Eye Contact | : Contact causes severe irritation with redness and swelling of the conjunctiva. |
| Symptoms/Injuries After Ingestion | : This material is harmful orally and can cause adverse health effects or death in significant amounts. |
| 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.

SECTION 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. |

| | |
|--------------------------------------|--|
| 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 Refractive Index Liquid Series A n _D = 1,571 - 1,640 | |
| Persistence and Degradability | May cause long-term adverse effects in the environment. |

12.3. Bioaccumulative Potential

| | |
|--|------------------|
| Cargille Refractive Index Liquid Series A n _D = 1,571 - 1,640 | |
| Bioaccumulative Potential | Not established. |

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB Assessment

| | |
|--------------------------------------|--|
| Component | |
| Hydrogenated terphenyls (61788-32-7) | 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.




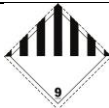

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Sewage Disposal Recommendations : Do not empty into drains. Do not dispose of waste into sewer.
Product/Packaging Disposal : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
Recommendations :
Additional Information : Container may remain hazardous when empty. Continue to observe all precautions.
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 |
|---|--|---|---|---|
| 14.1. UN Number or ID Number | | | | |
| UN 3082 | UN 3082 | UN 3082 | UN 3082 | UN 3082 |
| 14.2. UN Proper Shipping Name | | | | |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TERPHENYLS) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TERPHENYLS) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TERPHENYLS) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TERPHENYLS) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS TERPHENYLS) |
| 14.3. Transport Hazard Class(es) | | | | |
| 9 | 9 | 9 | 9 | 9 |
|  |  |  |  |  |
| 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 | 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 | 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 | 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 |

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| ADR | IMDG | IATA | ADN | RID |
|-----------------------------------|--|------|-----------------------------------|-----------------------------------|
| less. (See special provision 375) | packaging of 5 L or less. (See 2.10.2.7) | | less. (See special provision 375) | 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 Refractive Index Liquid Series A n _D = 1,571 - 1,640 ; Naphthalene, 1-bromo- |
| 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 Refractive Index Liquid Series A n _D = 1,571 - 1,640 ; Hydrogenated terphenyls ; Terphenyls |

15.1.1.2. 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)

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) |
| Naphthalene, 1-bromo- (90-11-9) |
| 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

| |
|--|
| 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) |
| Naphthalene, 1-bromo- (90-11-9) |
| 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) |

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

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

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision : 15/05/2024

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:

| | |
|---------------------|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment – Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment – Chronic Hazard, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H302 | Harmful if swallowed. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |

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

| | |
|---------------------|--------------------|
| Acute Tox. 4 (Oral) | Calculation method |
| Eye Irrit. 2 | Calculation method |
| Aquatic Acute 1 | Calculation method |
| Aquatic Chronic 1 | Calculation method |

Indication of Changes

| Section | Change | Date Changed | Version |
|---------|-------------------|--------------|---------|
| 4,5,6,7 | Language modified | 15/05/2024 | 4.0 |
| 9 | Review of data | 15/05/2024 | 4.0 |

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

NDS – Najwyższe Dopuszczalne Steżenie
NDSch – Najwyższe Dopuszczalne Steżenie Chwilowe
NDSP – Najwyższe Dopuszczalne Steżenie 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

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| | |
|---|--|
| EC50 - Median Effective Concentration | by Rail |
| EEC – European Economic Community | SADT - Self Accelerating Decomposition Temperature |
| EINECS – European Inventory of Existing Commercial Chemical Substances | SDS - Safety Data Sheet |
| EmS-No. (Fire) - IMDG Emergency Schedule Fire | STEL - Short Term Exposure Limit |
| EmS-No. (Spillage) - IMDG Emergency Schedule Spillage | STOT - Specific Target Organ Toxicity |
| EU – European Union | TA-Luft - Technische Anleitung zur Reinhaltung der Luft |
| ErC50 - EC50 in Terms of Reduction Growth Rate | TEL TRK – Technical Guidance Concentrations |
| GHS – Globally Harmonized System of Classification and Labeling of Chemicals | ThOD – Theoretical Oxygen Demand |
| IARC - International Agency for Research on Cancer | TLM - Median Tolerance Limit |
| IATA - International Air Transport Association | TLV - Threshold Limit Value |
| IBC Code - International Bulk Chemical Code | TPRD - Trumpalaikio Poveikio Ribinis Dydis |
| IMDG - International Maritime Dangerous Goods | TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern |
| IPRV - Ilgalaikio Poveikio Ribinis Dydis | TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine |
| IOELV – Indicative Occupational Exposure Limit Value | TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte |
| LC50 - Median Lethal Concentration | TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte |
| LD50 - Median Lethal Dose | TSCA - Toxic Substances Control Act |
| LOAEL - Lowest Observed Adverse Effect Level | TWA - Time Weighted Average |
| LOEC - Lowest-Observed-Effect Concentration | VOC – Volatile Organic Compounds |
| Log K _{oc} - Soil Organic Carbon-water Partitioning Coefficient | VLA-EC - Valor Límite Ambiental Exposición de Corta Duración |
| Log K _{ow} - Octanol/water Partition Coefficient | VLA-ED - Valor Límite Ambiental Exposición Diaria |
| 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 | VLE – Valeur Limite D'exposition |
| MAK – Maximum Workplace Concentration/Maximum Permissible Concentration | VME – Valeur Limite De Moyenne Exposition |
| MARPOL - International Convention for the Prevention of Pollution | 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) | FOOD_JOURN: Food Research Journal (1956) |
| AU_WES: Australia WES | IARC: The International Agency for Research on Cancer |
| CHEMVIEW: ChemView (U.S. Environmental Protection Agency) | IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles |
| EC_RAR: European Commission Renewal Assessment Report | IUCLID: International Uniform Chemical Information Database |
| EC_SCOEL: European Commission Scientific Committee on Occupational Exposure Limits | JAPAN_GHS: Japan GHS Basis for Classification Data |
| ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports | JP_J-CHECK: Japan J-Check |
| ECHA_API: European Chemicals Agency API | KR_NIER: South Korea National Institute of Environmental Research Evaluations |
| ECHA_RAC: ECHA Committee for Risk Assessment | NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme |
| EFSA: European Food Safety Authority | NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services) |
| EPA: U.S. Environmental Protection Agency | NLM_CIP: National Library of Medicine ChemID plus database |
| EPA_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency) | NLM_HSDB: National Library of Medicine Hazardous Substance Data Bank |
| EPA_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency) | NLM_PUBMED: National Library of Medicine PubMed database |
| EPA_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency) | NTP: National Toxicology Program |
| EPA_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency) | NZ_CCID: New Zealand Chemical Classification and Information Database |
| EU_CLH: European Union Harmonised Classification and Labelling Proposal | OECD_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development) |
| EU_RAR: European Union Risk Assessment Report | 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 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. | 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. |
| 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. | 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 |
| 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. | Ireland - 2020 COP - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1 |
| 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 | 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 |
| | Italy - IMDFN1 - Ministerial Decree of August 20, 1999 Final Note (1) |
| | Latvia - Reg. No. 325 - Cabinet of Ministers Regulation No. 325 - Labour |

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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 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

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.

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Cargille Refractive Index Liquid Series A $n_D = 1.571 - 1.640$

Safety Data Sheet

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