

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Revision Date: 09/05/2024 Date of Issue: 30/11/2016 Supersedes Date: 30/11/2016 Version: 2.0

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

1.1. Product Identifier

- : Mixture
- : Cargille Optical Gel Code 0608

Product Name Product Code

Product Form

: Catalog #24231, 24260

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 a Gel at normal room pressure 101,32 kPa (760 mm Hg), temperature 4°C to 40°C in a non misted / non airborne state in a room having normal air changes (2) / HR., in a trained and supervised laboratory / industrial setting using standard Good Laboratory/Good Manufacturing procedures.

Note: Product normally sold 1 oz quantities.

1.2.2. Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

Cargille Laboratories 55 Commerce Road Cedar Grove, NJ 07009-1289 T 973-239-6633 Website: <u>www.cargille.com</u> email: Technical@Cargille.com

email: <u>Technical@Cargille.com</u>

- 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 Not classified.
2.2. Label Elements Labelling According to Regulation (EC) No. 1272/2008 [CLP] FUH-statements

: EUH210 - Safety data sheet available on request.

2.3. Other Hazards

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

This substance/mixture does not meet the PBT/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
1-Decene, homopolymer, hydrogenated	(CAS-No.) 68037-01-4 (EC-No.) 500-183-1	80 - 100	Asp. Tox. 1, H304
Silane, dichlorodimethyl-, reaction products with silica	(CAS-No.) 68611-44-9 (EC-No.) 271-893-4	7 – 13	Not classified.

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

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

According to Regulation (EC) No. 1907/2006 (REACH)	with its amenument Regulation (EU) 2020/878
SECTION 4: FIRST AID MEASURES	
4.1. Description of First-aid Meas	ures
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. Drench affected area with water for at least 5
	minutes. Obtain medical attention if irritation develops or persists.
First-Aid Measures After Eye Contact	: Rinse cautiously with water for at least 5 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.
_	nd Effects Both Acute and Delayed
	•
Symptoms/Effects	: Not expected to present a significant hazard under anticipated conditions of
Commentations / Effects After the ball atter	normal use.
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	: May cause slight irritation to eyes.
Symptoms/Effects After Ingestion	: Ingestion may cause adverse effects.
Chronic Symptoms	: None known.
	Medical Attention and Special Treatment Needed
· · ·	ice and attention. If medical advice is needed, have product container or label at hand.
SECTION 5: FIREFIGHTING MEASU	RES
5.1. Extinguishing Media	
Suitable Extinguishing Media	: Water spray, fog, carbon dioxide (CO ₂), alcohol-resistant foam, or dry chemical.
Unsuitable Extinguishing Media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.
5.2. Special Hazards Arising From	the Substance or Mixture
Fire Hazard	: Not considered flammable but may burn at high temperatures.
Explosion Hazard	: Product is not explosive.
Reactivity	: Hazardous reactions will not occur under normal conditions.
Hazardous Combustion Products	: Carbon oxides (CO, CO ₂). Hydrocarbons. Silica 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.
SECTION 6: ACCIDENTAL RELEASE	
	tive Equipment and Emergency Procedures
General Measures	: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour,
General measures	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	. Evaluate annecessary personnel.
Protective Equipment	: Equip cleanup crew with proper protection.
Emergency Procedures	: Upon arrival at the scene, a first responder is expected to recognise the presence
Emergency Procedures	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	the assistance of trained personnel as soon as conditions permit. Ventilate died.
	c .
Prevent entry to sewers and public water	
6.3. Methods and Materials for Co	•••
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.

Safety Data Sheet

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

6.4. **Reference to Other Sections**

See Section 8 for exposure controls ar	nd personal protection and Section 13 for disposal considerations.
SECTION 7: HANDLING AND ST	ORAGE
7.1. Precautions for Safe Hand	ling
Precautions for Safe Handling	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapour, mist, spray).
Hygiene Measures	: Handle in accordance with good industrial hygiene and safety procedures.
7.2. Conditions for Safe Storag	e, 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.

Incompatible Materials 7.3. Specific End Use(s)

For professional and R&D use only. Conditions of Intended Use: (ABBR. C.I.U.) As a Gel at normal room pressure 101.32 kPa (760 mm Hg), temperature 4°C to 40°C (39°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.

Note: Product normally sold 1 oz quantities.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters 8.1.

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.

8.2. **Exposure Controls**

Appropriate Engineering Controls

Personal Protective Equipment

- : Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
- : Safety glasses with side shields. Gloves. Protective clothing. Protective goggles. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.



Materials for Protective Clothing	: Chemically resistant materials and fabrics.
Hand Protection	: Wear protective gloves.
Eye Protection	: Safety glasses with side-shields. Chemical safety goggles.
Skin and Body Protection	: Wear suitable protective clothing.
Respiratory Protection	: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient

n deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES		
9.1. Information on Basic Physical and Chemical Properties		
Physic	cal State	: Liquid
Calau		. Translusant Cal

Colour, Appearance: Translucent GelOdour: Slight Characteristic Odour
Odour : Slight Characteristic Odour
Odour Threshold : No data available
pH : No data available
Evaporation Rate : < 1 (Mineral oil = 1)
Melting Point : < -67 °C ca
Freezing Point : No data available

Other Information

Safety Data Sheet

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

Boiling Point	: >416 °C
Flash Point	: > 245 °C (Open Cup)
Auto-Ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability	: Not applicable
Vapour Pressure	: Nil
Relative Vapour Density At 20°C	: 1 (Air=1), N.D.F.
Relative Density	: 0,879 (Water = 1)
Solubility	: Water: Nil
Partition Coefficient n-Octanol/Water	: No data available
Viscosity	: Soft gel
Explosive Properties	: No data available
Oxidising Properties	: No data available
Explosive Limits	: No data available
Particle Aspect Ratio	: Not applicable
Particle Aggregation State	: Not applicable
Particle Agglomeration State	: Not applicable
Particle Specific Surface Area	: Not applicable
Particle Dustiness	: Not applicable
9.2. Other Information	

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). Hydrocarbons. Silica 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)	: 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)

Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)

LD50 Oral Rat	> 5000 mg/kg	
LC50 Inhalation Rat	0,45 mg/l/4h	
1-Decene, homopolymer, hydrogenated (68037-01-4)	
LC50 Inhalation Rat	> 5,2 mg/l/4h	
Skin Corrosion/Irritation Eye Damage/Irritation Respiratory or Skin Sensitisation Germ Cell Mutagenicity Carcinogenicity	 Not classified. (Based on available data, the classification criteria are not met) Not classified. (Based on available data, the classification criteria are not met) Not classified. (Based on available data, the classification criteria are not met) Not classified. (Based on available data, the classification criteria are not met) Not classified. (Based on available data, the classification criteria are not met) Not classified. (Based on available data, the classification criteria are not met) 	
Reproductive Toxicity Specific Target Organ Toxicity (Single Exposure)	 Not classified. (Based on available data, the classification criteria are not met) 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)	

Safety Data Sheet

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

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	: 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.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous To The Aquatic Environment, : Not classified. (Based on available data, the classification criteria are not met) Short–Term (Acute)

Hazardous To The Aquatic Environment, : Not classified. (Based on available data, the classification criteria are not met) Long–Term (Chronic)

Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)	
LC50 - Fish [1]	> 10000 mg/l Brachydanio rerio, OECD Guide-line 203
EC50 - Crustacea [1]	> 10000 mg/l OECD Guide-line 202
ErC50 algae	Scenedesmus subspicatus, OECD Guide-line 201

12.2. Persistence and Degradability

Cargille Optical Gel Code 0608		
Persistence and Degradability	Not established.	
12.3. Bioaccumulative Potential		
Cargille Optical Gel Code 0608		
Bioaccumulative Potential	Not established.	
1-Decene, homopolymer, hydrogenated (68037-01-4)		
Partition coefficient n-octanol/water (Log Pow)	> 6,5 at 20 °C (at pH 7)	

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances >= 0,1% assessed in accordance with REACH Annex XVIII

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

 Product/Packaging Disposal
 : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

 Additional Information
 : Container may remain hazardous when empty. Continue to observe all precautions.

 Ecology - Waste Materials
 : Avoid release to the environment.

 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

14.1. UN Number or ID Number

Not regulated for transport

14.2. UN Proper Shipping Name

Not regulated for transport

14.3. Transport Hazard Class(es)

Not regulated for transport

Safety Data Sheet

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

14.4. Packing Group

Not regulated for transport

14.5. Environmental Hazards

Not regulated for transport

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

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

15.1.1.2. REACH Candidate List Information

Contains no substance(s) listed on the REACH Candidate List

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

Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)

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

Silane, dichlorodimethyl-, reaction products with silica (68611-44-9)

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) 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 the TCSI (Taiwan Chemical Substance Inventory) Listed on the NCI (Vietnam - National Chemical Inventory) Listed on Thailand Existing Chemicals Inventory (DIW) 1-Decene, homopolymer, hydrogenated (68037-01-4) 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)

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

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

SECTION 16: OTHER INFORMATIO	N
Date of Preparation or Latest Revision	: 09/05/2024
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:

Asp. Tox. 1	Aspiration hazard, Category 1
EUH210	Safety data sheet available on request.
H304	May be fatal if swallowed and enters airways.

Indication of Changes

Review of data Section 9. Language modified sections 4,5,6, and 7.

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists	NDS - Najwyzsze Dopuszczalne Stezenie
ADN – European Agreement Concerning the International Carriage of	NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
Dangerous Goods by Inland Waterways	NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
ADR - European Agreement Concerning the International Carriage of	NOAEL - No-Observed Adverse Effect Level
Dangerous Goods by Road	NOEC - No-Observed Effect Concentration
ATE - Acute Toxicity Estimate	NRD - Nevirsytinas Ribinis Dydis
BCF - Bioconcentration Factor	NTP – National Toxicology Program
BEI - Biological Exposure Indices (BEI)	OEL - Occupational Exposure Limits
BOD – Biochemical Oxygen Demand	PBT - Persistent, Bioaccumulative and Toxic
CAS No Chemical Abstracts Service Number	PEL - Permissible Exposure Limit
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008	pH – Potential Hydrogen
COD – Chemical Oxygen Demand	REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals
EC – European Community	RID – Regulations Concerning the International Carriage of Dangerous Goods
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
IPRV - Ilgalaikio Poveikio Ribinis Dydis	Gefahrstoffen in ortsbeweglichen Behältern
IOELV – Indicative Occupational Exposure Limit Value	TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine
LC50 - Median Lethal Concentration	TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte
LD50 - Median Lethal Dose	TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte
LOAEL - Lowest Observed Adverse Effect Level	TSCA - Toxic Substances Control Act
LOEC - Lowest-Observed-Effect Concentration	TWA - Time Weighted Average
Log Koc - Soil Organic Carbon-water Partitioning Coefficient	VOC – Volatile Organic Compounds
Log Kow - Octanol/water Partition Coefficient	VLA-EC - Valor Límite Ambiental Exposición de Corta Duración
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in	VLA-ED - Valor Límite Ambiental Exposición Diaria
a two-phase system consisting of two largely immiscible solvents, in this case	VLE – Valeur Limite D'exposition
octanol and water	VME – Valeur Limite De Moyenne Exposition
MAK – Maximum Workplace Concentration/Maximum Permissible	vPvB - Very Persistent and Very Bioaccumulative
Concentration	WEL – Workplace Exposure Limit
MARPOL - International Convention for the Prevention of Pollution	WGK - Wassergefährdungsklasse
Glossary of Data Source Abbreviations	
ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of	FOOD_JOURN: Food Research Journal (1956)
Health and Human Services)	IARC: The International Agency for Research on Cancer
AU_WES: Australia WES	IDLH: National Institute for Occupational Health and Safety Immediately
CHEMVIEW: ChemView (U.S. Environmental Protection Agency)	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	JAPAN_GHS: Japan GHS Basis for Classification Data
Exposure Limits	JP_J-CHECK: Japan J-Check
ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals	KR_NIER: South Korea National Institute of Environmental Research
Reports	Evaluations
ECHA_API: European Chemicals Agency API	NICNAS: Australia National Industrial Chemicals Notification and Assessment
ECHA_RAC: ECHA Committee for Risk Assessment	Scheme
09/05/2024 EN (English)	7/9

Safety Data Sheet

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

- 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

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 Greece -

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 - BGBI. 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, BGBI. II No. 243/2007, lastly changed through BGBI. I Nr. 51/2011), BGBI. II Nr. 186/2015, BGBI. II Nr. 288/2017 amended by BGBI. II Nr. 254/2018. Austria - BLV BGBI. II Nr. 254/2018 - Ordinance on health monitoring at the workplace 2008, published through BGBI. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBI. 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

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 Cooperation and Development)

WHO: World Health Organization

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

Italy - IMDFN1 - Ministerial Decree of August 20, 1999 Final Note (1)
 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. Luxembourg - A-N 684 - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018

Malta - MOSHAA Ch. 424 - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57. Netherlands- OWCRLV - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.

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

Portugal - Portuguese Norm NP 1796:2014 - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.

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

Slovakia - Gov. Decree 33/2018 - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents

Slovenia - No. 79/19 - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III -

Safety Data Sheet

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

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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. Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001. Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19 **Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

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