Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Revision date: 19/07/2022 Date of Issue: 20/12/2013

Version: 4.0

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

1.1. Product Identifier

Product Form Product Name Synonyms Mixture MED3-4502 Color Masterbatch

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 use only.

1.2.2. Uses Advised Against Uses Advised Against

No additional information available

1.3. Details of the Supplier of the Safety Data Sheet

NuSil Technology Europe 1198 Avenue Maurice Donat Le Natura Bt. 2 06250 Mougins France +33 4 92 96 93 31 productstewardship@avantorsciencesgcc.com www.nusil.com **1.4. Emergency Telephone Number**

Emergency Number

+1 703-527-3887 CHEMTREC (International and Maritime) 800-424-9300 CHEMTREC (in US) +(44)-870-8200418 +(353)-19014670

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification According to Regulation (EC) No. 1272/2008 Aquatic Chronic 2 H411 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) Hazard Statements (CLP) Precautionary Statements (CLP)

H411 - Toxic to aquatic life with long lasting effects.

P273 - Avoid release to the environment.

P391 - Collect spillage.

P501 - Dispose of contents/container in accordance with local, regional, national and/or international regulation.

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2.3. Other Hazards

Other Hazards Not Contributing to the Classification	Exposure may aggravate pre-existing eye, skin, or respiratory conditions.
	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII
Decamethylcyclopentasiloxane (541-02-6)	This substance meets the vPvB criteria of REACH regulation, annex XIII
Dodecamethylcyclohexasiloxane (540-97-6)	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
Titanium dioxide substance with a Union workplace exposure limit	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (EC Index-No.) 022-006-00-2	70 - 80	Not classified
Octamethylcyclotetrasiloxane substance listed as REACH Candidate (Octamethylcyclotetrasiloxane (D4))	(CAS-No.) 556-67-2 (EC-No.) 209-136-7 (EC Index-No.) 014-018-00-1	< 1	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 (M=10)
Decamethylcyclopentasiloxane substance listed as REACH Candidate (Decamethylcyclopentasiloxane (D5))	(CAS-No.) 541-02-6 (EC-No.) 208-764-9	< 1	Not classified
Dodecamethylcyclohexasiloxane substance listed as REACH Candidate (Dodecamethylcyclohexasiloxane (D6))	(CAS-No.) 540-97-6 (EC-No.) 208-762-8	<1	Not classified

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	When symptoms occur: go into open air and ventilate
Inhalation	suspected area. Obtain medical attention if breathing difficulty persists.
First-Aid Measures After Skin	Remove contaminated clothing. Immediately drench affected
Contact	area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.
First-Aid Measures After Eye	Rinse cautiously with water for at least 15 minutes. Remove
Contact	contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.
First-Aid Measures After	Rinse mouth. Do NOT induce vomiting. Obtain medical
Ingestion	attention.
4.2. Most Important Symptoms	and Effects Both Acute and Delayed
Symptoms/Effects	Not expected to present a significant hazard under anticipated conditions of normal use.

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ccording to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878		
Prolonged exposure may cause irritation.		
Prolonged exposure to liquid may cause a mild irritation.		
Prolonged exposure may cause slight irritation to eyes.		
Ingestion may cause adverse effects.		
None known.		

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

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, dry chemical, foam, carbon dioxide.
Unsuitable Extinguishing Media	Do not use a heavy water stream. Use of heavy stream of water may spread fire.
5.2 Special Hazards Arisina F	rom the Substance or Mixture

special nazaras Arising from the substance of 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	Carbon oxides (CO, CO2). Formaldehyde. Silicon oxides.
Products	
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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

courses.

General Measures	Avoid breathing (vapour, mist, spray). Avoid contact with skin,	
	eyes and 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	Ventilate area. 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.

Environmental Precautions 6.2.

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

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6.3. Methods and Materials for Containment and Cleaning Up

	♥ 1
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.
	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

Additional Hazards When	Will decompose above 150 °C (> 300 °F) releasing
Processed	formaldehyde vapours.
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 vapours, mist, spray. Avoid contact with eyes, skin and clothing.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety procedures.
7.2. Conditions for Safe Stora	ge, 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. Store locked up/in a secure area.
Incompatible Materials	Strong acids, strong bases, strong oxidisers.
7.3. Specific End Use(s)	

For professional use only.

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.

Titanium dia	oxide (13463-67-7)	
Austria	OEL TWA (Legal Basis:BGBI. II Nr. 254/2018)	5 mg/m³ (alveolar dust, respirable fraction)
Austria	OEL STEL (Legal Basis:BGBI. II Nr. 254/2018)	10 mg/m ³ (alveolar dust, respirable fraction)
Belgium	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	10 mg/m ³
Bulgaria	OEL TWA (Legal Basis:Reg. No. 13/10)	10 mg/m³ (respirable dust)
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	10 mg/m³ (total dust, inhalable particles) 4 mg/m³ (respirable dust)
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	6 mg/m ³
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	5 mg/m ³
France	OEL TWA (Legal Basis:INRS ED 984)	10 mg/m ³
Germany	OEL TWA (Legal Basis:TRGS 900)	1,25 mg/m³ (respirable fraction (dust) 10 mg/m³ (inhalable fraction (dust)
Greece	OEL TWA (Legal Basis:PWHSE)	10 mg/m³ (inhalable fraction) 5 mg/m³ (respirable fraction)
Ireland	OEL TWA (Legal Basis:2020 COP)	10 mg/m³ (total inhalable dust) 4 mg/m³ (respirable dust)

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Ireland	OEL STEL (Legal Basis:2020 COP)	30 mg/m³ (calculated-respirable dust) 12 mg/m³ (calculated)
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	10 mg/m ³
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	10 mg/m ³
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	5 mg/m³
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	5 mg/m³
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	10 mg/m³ (value calculated)
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	10 mg/m ³ (the concentration of the respirable Crystalline silica fraction is determined simultaneously-inhalable fraction)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	10 mg/m ³
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	A4 - Not Classifiable as a Human Carcinogen
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	10 mg/m ³
Romania	OEL STEL (Legal Basis:Gov. Dec. No 1.218)	15 mg/m³
Slovakia	OEL TWA (Legal Basis:Gov. Decree 33/2018)	5 mg/m³
Spain	OEL TWA (Legal Basis:OELCAIS)	10 mg/m ³
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	5 mg/m³ (total dust)
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	3 mg/m³ (respirable dust)

Exposure Controls 8.2.

Appropriate Engineering Controls

Personal Protective Equipment

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. 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 **Eve 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties 9.1.

Physical State Colour, Appearance Odour Odour Threshold рΗ **Evaporation Rate** Melting Point **Freezing Point Boiling Point**

Liquid White Odorless No data available No data available

Safety Data Sheet According to Regulation (EC) No.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878			
Flash Point	> 135 °C (275 °F)		
Auto-Ignition Temperature	No data available		
	No data available		
Decomposition Temperature	No data available		
Flammability (solid, gas)	Not applicable		
Vapour Pressure	No data available		
Relative Vapour Density At 20 °C	No data available		
Relative Density	> 1 (water = 1)		
Solubility	No data available		
Partition Coefficient n-Octanol/Water	No data available		
Viscosity	No data available		
Explosive Properties	No data available		
Oxidising Properties	No data available		
Explosive Limits	Not applicable		
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			
VOC content	<1%		

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable at normal conditions.

10.3. Possibility of Hazardous Reactions

Hazardous polymerization 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 generates: Carbon oxides (CO, CO₂). Silicon oxides. Will decompose above 150 °C (>300° F) releasing formaldehyde vapours. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitiser. Formaldehyde can also cause respiratory and eye irritation.

SECTION 11: TOXICOLOGICAL INFORMATION

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

Inhalation
Ingestion
Dermal
Eye contact
Not classified (Based on available data, the classification
criteria are not met)
Not classified (Based on available data, the classification criteria are not met)

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Acute Toxicity (Inhalation) Not classified (Based on available data, the classification criteria are not met)

Octamethylcyclotetrasiloxane (556-67-2)	
LD50 Oral Rat	> 4800 mg/kg (No mortality)
LD50 Dermal Rat	> 2375 mg/kg
LD50 Dermal Rabbit	> 2,5 ml/kg (No mortality)
LC50 Inhalation Rat	36 mg/l/4h
Decamethylcyclopentasiloxane (541-02-6)	
LD50 Oral Rat	> 5000 mg/kg (Species: Sprague-Dawley)
LD50 Dermal Rabbit	> 2000 mg/kg (Species: New Zealand White) No deaths reported
LC50 Inhalation Rat	8,67 mg/l/4h
Dodecamethylcyclohexasiloxane (540-97-6	
LD50 Oral Rat	/ > 50 g/kg
LD50 Dermal Rat	> 2000 mg/kg (No deaths)
Titanium dioxide (13463-67-7)	> 10000 ma/ka
LD50 Oral Rat LC50 Inhalation Rat	> 10000 mg/kg
	5,09 mg/l/4h
Skin Corrosion/Irritation	Not classified (Based on available data, the classification
	criteria are not met)
Eye Damage/Irritation	Not classified (Based on available data, the classification
	criteria are not met)
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
Careinogenieny	criteria are not met)
Titanium dioxide (13463-67-7)	
IARC Group	2B
Reproductive Toxicity	Not classified (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity	Not classified (Based on available data, the classification
(Single Exposure)	criteria are not met)
Specific Target Organ Toxicity	Not classified (Based on available data, the classification
(Repeated Exposure)	criteria are not met)
	Not classified (Based on available data, the classification
Aspiration Hazard	criteria are not met)
Symptoms/Injuries After	Prolonged exposure may cause irritation.
Inhalation	,
Symptoms/Injuries After Skin	Prolonged exposure to liquid may cause a mild irritation.
Contact	
Symptoms/Injuries After Eye	Prolonged exposure may cause slight irritation to eyes.
Contact	
Symptoms/Injuries After	Ingestion may cause adverse effects.
Ingestion	
Chronic Symptoms	None known.
11.2. Information On Other Ho	izarde

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.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Hazardous To The Aquatic	Not classified (Based on available data, the classification
Environment, Short-Term (Acute)	criteria are not met)
Hazardous To The Aquatic	Toxic to aquatic life with long lasting effects.
Environment, Long-Term	
(Chronic)	
0	

Octamethylcyclotetrasiloxane (556-67-2	2)		
LC50 Fish	> 22 µg/l		
NOEC chronic Fish	0,0044 mg/l		
Titanium dioxide (13463-67-7)			
LC50 Fish	_C50 Fish > 1000 ml/l (Exposure Time: 96h - Species: Pimephales promelas (static)		
12.2. Persistence and Degr	adability		
MED3-4502			
Persistence and Degradability May cause long-term adverse effects in the environment.			
12.3. Bioaccumulative Pote	ential		
MED3-4502			
Bioaccumulative Potential	Not established		

Bioaccumulative Potential	Not established.
Octamethylcyclotetrasiloxane (556-67-2)	
BCF Fish	12400
Partition coefficient n-octanol/water (Log Pow)	5,1

12.4. Mobility in Soil

No additional information available

12.5. Results of PBT and vPvB Assessment

Octamethylcyclotetrasiloxane (556-67-2)	This substance meets the PBT criteria of REACH regulation, annex XIII This substance meets the vPvB criteria of REACH regulation, annex XIII
Decamethylcyclopentasiloxane (541-02-6)	This substance meets the vPvB criteria of REACH regulation, annex XIII
Dodecamethylcyclohexasiloxane (540-97-6)	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

Other Information

Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Product/Packaging Disposal Recommendations Ecology - Waste Materials Dispose of contents/container in accordance with local, regional, national, and international regulations. This material is hazardous to the aquatic environment. Keep out of sewers and waterways. 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

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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 S	Shipping Name			
ENVIRONMENTAL	ENVIRONMENTAL	Environmentally	ENVIRONMENTAL	ENVIRONMENTAL
ly hazardous	ly hazardous	hazardous	ly hazardous	LY HAZARDOUS
substance,	substance,	substance, liquid,	substance,	SUBSTANCE,
liquid, n.o.s.	liquid, n.o.s.	n.o.s.	liquid, n.o.s.	liquid, n.o.s.
(Octamethylcycl	(Octamethylcycl	(Octamethylcycl	(Octamethylcycl	(Octamethylcycl
otetrasiloxane)	otetrasiloxane)	otetrasiloxane)	otetrasiloxane)	otetrasiloxane)
14.3. Transport Hazard Class				
9	9	9	9	9
Alle I				
9	9	9	9	9
14.4. Packing Group				
III				
14.5. Environmental Hazards				
Dangerous for	Dangerous for	Dangerous for	Dangerous for	Dangerous for
the environment :	the environment :	the environment :	the environment :	the environment :
Yes	Yes	Yes	Yes	Yes
	Marine pollutant :			
	Yes			

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 REACH substances with Annex XVII restrictions

15.1.1.2. REACH Candidate List Information

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Octamethylcyclotetrasiloxane (D4) (EC 209-136-7, CAS 556-67-2),

Decamethylcyclopentasiloxane (D5) (EC 208-764-9, CAS 541-02-6),

Dodecamethylcyclohexasiloxane (D6) (EC 208-762-8, CAS 540-97-6)

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

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

15.1.1.5. REACH Annex XIV Information

Contains no REACH Annex XIV substances

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

No additional information available

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15.1.1.7. EC Inventory Information

No additional information available

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

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Date of Preparation or Latest Revision Data Sources

19/07/2022

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

Other Information

Full Text of H- and EUH-statements:

Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
lassification and Procedure Use	ed to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CI P]

Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]: Aquatic Chronic 2 Calculation method

Indication of Changes

No additional information available

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial	NDS - Najwyzsze Dopuszczalne Stezenie
Hygienists	NDSCh - Najwyzsze Dopuszczalne Stezenie Chwilowe
ADN – European Agreement Concerning the International	NDSP - Najwyzsze Dopuszczalne Stezenie Pulapowe
Carriage of Dangerous Goods by Inland Waterways	NOAEL - No-Observed Adverse Effect Level
ADR - European Agreement Concerning the International	NOEC - No-Observed Effect Concentration
Carriage of Dangerous Goods by Road	NRD - Nevirsytinas Ribinis Dydis
ATE - Acute Toxicity Estimate	NTP – National Toxicology Program
BCF - Bioconcentration Factor	OEL - Occupational Exposure Limits
BEI - Biological Exposure Indices (BEI)	PBT - Persistent, Bioaccumulative and Toxic
BOD – Biochemical Oxygen Demand	PEL - Permissible Exposure Limit
CAS No Chemical Abstracts Service Number	pH – Potential Hydrogen
CLP – Classification, Labeling and Packaging Regulation (EC) No	REACH – Registration, Evaluation, Authorisation, and Restriction
1272/2008	of Chemicals
COD – Chemical Oxygen Demand	RID – Regulations Concerning the International Carriage of
EC – European Community	Dangerous Goods by Rail
EC50 - Median Effective Concentration	SADT - Self Accelerating Decomposition Temperature
EEC – European Economic Community	SDS - Safety Data Sheet
EINECS – European Inventory of Existing Commercial Chemical	STEL - Short Term Exposure Limit
Substances	STOT - Specific Target Organ Toxicity
EmS-No. (Fire) - IMDG Emergency Schedule Fire	TA-Luft - Technische Anleitung zur Reinhaltung der Luft
EmS-No. (Spillage) - IMDG Emergency Schedule Spillage	TEL TRK – Technical Guidance Concentrations
EmS-No. (Fire) - IMDG Emergency Schedule Fire	TA-Luft - Technische Anleitung zur Reinhaltung der Luft

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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 Kov - Octanol/water Partition 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

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 - 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.

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Belgium - Royal Decree 21/01/2020 - Royal decree amending title 1 relating to chemical agents in Book VI of the code of wellbeing 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 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

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.

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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

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

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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

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