

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ECOSMALTO UNIVERSALE LUCIDO

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

Intended use Water based, acrylic, gloss enamel for interiors and exteriors.

Uses advised against Uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name OIKOS S.P.A. A SOCIO UNICO
Full address Via Cherubini 2
District and Country 47043 Gatteo Mare (FC)
Italia
Tel. 0547 681412
Fax 0547 681430

e-mail address of the competent person responsible for the Safety Data Sheet certificazioniprodoti@oikos-group.it

1.4. Emergency telephone number

For urgent inquiries refer to NHS National Health Service 111

OIKOS S.P.A. a socio unico Company emergency number: 0547 681412
Technical support - Monday to Friday from 8.00-13.00; 13:30 to 16:30

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Hazardous to the aquatic environment, chronic toxicity, category 3 H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains: 1,2-benzisothiazol-3(2H)-one
May produce an allergic reaction.

Precautionary statements: --

VOC (Directive 2004/42/EC) :

Interior / exterior trim and cladding paints for wood, metal or plastic.

VOC given in g/litre of product in a ready-to-use condition :

95,00

Limit value:

130,00

SECTION 2. Hazards identification ... / >>

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
2-butoxyethanol		
CAS	111-76-2	$0,374 \leq x < 0,38$
EC	203-905-0	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
INDEX	603-014-00-0	LD50 Oral: 1200 mg/l/4h, STA Inhalation mists/powders: 1,5 mg/l
REACH Reg.	01-2119475108-36	
Ethane-1,2-diol		
CAS	107-21-1	$0,054 \leq x < 0,06$
EC	203-473-3	Acute Tox. 4 H302, STOT RE 2 H373
INDEX	603-027-00-1	STA Oral: 500 mg/kg
REACH Reg.	01-2119456816-28	
2-(2-butoxyethoxy)ethanol		
CAS	112-34-5	$0,054 \leq x < 0,06$
EC	203-961-6	Eye Irrit. 2 H319
INDEX	603-096-00-8	
REACH Reg.	01-2119475104-44	
1,2-benzisothiazol-3(2H)-one		
CAS	2634-33-5	$0,014 \leq x < 0,02$
EC	220-120-9	Acute Tox. 2 H330, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315,
INDEX	613-088-00-6	Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
REACH Reg.	01-2120761540-60	Skin Sens. 1 H317: $\geq 0,05\%$
		LD50 Oral: >490 mg/kg bw, STA Inhalation mists/powders: 0,051 mg/l, STA Inhalation vapours: 0,501 mg/l
CAS	7783-90-6	$0,00289 \leq x < 0,00399$
EC	232-033-3	Aquatic Acute 1 H400 M=1000, Aquatic Chronic 1 H410 M=100
INDEX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

SECTION 5. Firefighting measures ... / >>

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2021

2-(2-butoxyethoxy)ethanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	67	10	100,5 (C)	15 (C)	Hinweis		
MAK	DEU	67	10	100,5	15	Hinweis		
VLA	ESP	67,5	10	101,2	15			
VLEP	FRA	68	10	101,2	15			
VLEP	ITA	67,5	10	101,2	15			
NDS/NDSch	POL	67		100				
WEL	GBR	67,5	10	101,2	15			
OEL	EU	67,5	10	101,2	15			
TLV-ACGIH		66	10			INHAL		
Predicted no-effect concentration - PNEC								
Normal value in fresh water						1,1	mg/l	
Normal value in marine water						0,11	mg/l	
Normal value for fresh water sediment						4,4	mg/kg	
Normal value for marine water sediment						0,44	mg/kg	
Normal value of STP microorganisms						200	mg/l	
Normal value for the terrestrial compartment						0,32	mg/kg	
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI	NPI	5 mg/kg bw/d				
Inhalation	60,7 mg/m3	NPI	40,5 mg/m3	40,5 mg/m3	101,2 mg/m3	NPI	67,5 mg/m3	67,5 mg/m3
Skin		NPI	NPI	50 mg/kg bw/d	NPI	NPI	NPI	83 mg/kg bw/d

2-butoxyethanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	49	10	98	20			
MAK	DEU	49	10	98	20	SKIN	Hinweis	
VLA	ESP	98	20	245	50	SKIN		
VLEP	FRA	49	10	246	50	SKIN		
VLEP	ITA	98	20	246	50	SKIN		
NDS/NDSch	POL	98		200		SKIN		
WEL	GBR	123	25	246	50	SKIN		
OEL	EU	98	20	246	50	SKIN		
Predicted no-effect concentration - PNEC								
Normal value in fresh water						8,8	mg/l	
Normal value in marine water						26,4	mg/l	
Normal value for fresh water sediment						34,6	mg/kg	
Normal value for marine water sediment						3,46	mg/kg	
Normal value for water, intermittent release						0,88	mg/l	
Normal value of STP microorganisms						463	mg/l	
Normal value for the terrestrial compartment						2,33	mg/kg	
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		26,7 mg/kg bw/d		6,3 mg/kg bw/d				
Inhalation	147 mg/m3	426 mg/m3	NPI	59 mg/m3	246 mg/m3	1091 mg/m3	NPI	98 mg/m3
Skin		89 mg/kg bw/d	NPI	75 mg/kg bw/d	89 mg/kg bw/d	89 mg/kg bw/d	NPI	125 mg/kg bw/d

SECTION 8. Exposure controls/personal protection ... / >>

Ethane-1,2-diol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m ³	ppm	mg/m ³	ppm			
AGW	DEU	26	10	52	20	SKIN		
MAK	DEU	26	10	52	20	SKIN		
VLA	ESP	52	20	104	40	SKIN		
VLEP	FRA	52	20	104	40	SKIN		
VLEP	ITA	52	20	104	40	SKIN		
NDS/NDSch	POL	15		50		SKIN		
WEL	GBR	52	20	104	40	SKIN		
OEL	EU	52	20	104	40	SKIN		
TLV-ACGIH			25		50			
TLV-ACGIH				10		INHAL		
Predicted no-effect concentration - PNEC								
Normal value in fresh water						10	mg/l	
Normal value in marine water						1	mg/l	
Normal value for fresh water sediment						37	mg/kg/d	
Normal value for marine water sediment						3,7	mg/kg/d	
Normal value for water, intermittent release						10	mg/l	
Normal value of STP microorganisms						199,5	mg/l	
Normal value for the terrestrial compartment						1,53	mg/kg/d	
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation			7				35	
			mg/m ³				mg/m ³	
Skin				53			106	106
				mg/kg bw/d				mg/kg bw/d

1,2-benzisothiazol-3(2H)-one

Predicted no-effect concentration - PNEC								
Normal value in fresh water						4,03	µg/l	
Normal value in marine water						403	ng/l	
Normal value for fresh water sediment						49,9	µg/kg	
Normal value for marine water sediment						4,99	µg/kg	
Normal value of STP microorganisms						1,03	mg/l	
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation				1,2				6,81
				mg/m ³				mg/m ³
Skin				345				966
				µg/kg bw/d				µg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

SECTION 8. Exposure controls/personal protection ... / >>

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	pasty liquid	
Colour	White and the colour chart shades	
Odour	Feeble	
Melting point / freezing point	Not available	
Initial boiling point	> 100 °C	
Flammability	not flammable	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	Not applicable	
Auto-ignition temperature	Not applicable	
pH	8-10	
Kinematic viscosity	Not available	
Dynamic viscosity	2500 cps	
Solubility	Mixable in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,23	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	4,78 % - 58,81	g/litre
VOC (volatile carbon)	1,29 % - 15,92	g/litre
Explosive properties	not applicable	
Oxidising properties	not applicable	

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

2-butoxyethanol

Decomposes under the effect of heat.

Ethane-1,2-diol

In the air absorbs moisture. Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity ... / >>

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

2-(2-butoxyethoxy)ethanol

May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

2-butoxyethanol

May react dangerously with: aluminium, oxidising agents. Forms peroxides with: air.

Ethane-1,2-diol

Risk of explosion on contact with: perchloric acid. May react dangerously with: chlorosulphuric acid, sodium hydroxide, sulphuric acid, phosphorus pentasulphide, chromium (III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminium. Forms explosive mixtures with: air.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

2-(2-butoxyethoxy)ethanol

Avoid exposure to: air.

2-butoxyethanol

Avoid exposure to: sources of heat, naked flames.

Ethane-1,2-diol

Avoid exposure to: sources of heat, naked flames.

10.5. Incompatible materials

2-(2-butoxyethoxy)ethanol

Incompatible with: oxidising substances, strong acids, alkaline metals.

10.6. Hazardous decomposition products

2-(2-butoxyethoxy)ethanol

May develop: hydrogen.

2-butoxyethanol

May develop: hydrogen.

Ethane-1,2-diol

May develop: hydroxyacetaldehyde, glyoxal, acetaldehyde, methane, carbon monoxide, hydrogen.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

2-(2-butoxyethoxy)ethanol

WORKERS: inhalation; contact with the skin.

Ethane-1,2-diol

WORKERS: inhalation; contact with the skin.

POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

2-(2-butoxyethoxy)ethanol

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Ethane-1,2-diol

Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture: Not classified (no significant component)
ATE (Oral) of the mixture: Not classified (no significant component)
ATE (Dermal) of the mixture: Not classified (no significant component)

2-(2-butoxyethoxy)ethanol

LD50 (Dermal): 2764 mg/kg Rabbit
LD50 (Oral): 5530 mg/kg Mouse

2-butoxyethanol

LD50 (Oral): 1200 mg/kg Guinea pig
LC50 (Inhalation vapours): 2,2 mg/l/4h Rat

Ethane-1,2-diol

LD50 (Dermal): 3500 mg/kg Rat
LD50 (Oral): > 7712 mg/kg Rat
LC50 (Inhalation vapours): 2,5 mg/l/4h

1,2-benzisothiazol-3(2H)-one

LD50 (Dermal): 2000 mg/kg bw (rat)
LD50 (Oral): > 490 mg/kg bw 490-670 (rat)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

1,2-benzisothiazol-3(2H)-one

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Ethane-1,2-diol

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

SECTION 11. Toxicological information ... / >>

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

2-(2-butoxyethoxy)ethanol

LC50 - for Fish	1300 mg/l
EC50 - for Crustacea	100 mg/l/48h
EC50 - for Algae / Aquatic Plants	100 mg/l/96h

2-butoxyethanol

LC50 - for Fish	1464 mg/l/96h
EC50 - for Crustacea	1800 mg/l/48h
EC50 - for Algae / Aquatic Plants	1840 mg/l/72h
EC10 for Algae / Aquatic Plants	679 mg/l/72h
Chronic NOEC for Fish	100 mg/l 21 days
Chronic NOEC for Crustacea	100 mg/l 21 days
Chronic NOEC for Algae / Aquatic Plants	286 mg/l 72 h

Ethane-1,2-diol

LC50 - for Fish	72,86 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h
Chronic NOEC for Fish	32000 mg/l 7 days
Chronic NOEC for Crustacea	1000 mg/l 23 days
Chronic NOEC for Algae / Aquatic Plants	100 mg/l 72 h

SECTION 12. Ecological information ... / >>

1,2-benzisothiazol-3(2H)-one	
LC50 - for Fish	> 2,15 mg/l 2,15-22
EC50 - for Crustacea	> 2,9 mg/l 2,9-2,94
EC50 - for Algae / Aquatic Plants	> 70 µg/l 70-150
Chronic NOEC for Algae / Aquatic Plants	> 40,3 µg/l 40-55

12.2. Persistence and degradability

2-(2-butoxyethoxy)ethanol	
Solubility in water	955 g/l
Rapidly degradable	
2-butoxyethanol	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
Ethane-1,2-diol	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

1,2-benzisothiazol-3(2H)-one
Rapidly degradable

12.3. Bioaccumulative potential

2-(2-butoxyethoxy)ethanol	
Partition coefficient: n-octanol/water	1
BCF	< 100
2-butoxyethanol	
Partition coefficient: n-octanol/water	0,81
Ethane-1,2-diol	
Partition coefficient: n-octanol/water	-1,36

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

<u>Product</u>	
<u>Point</u>	3 - 40
<u>Contained substance</u>	
<u>Point</u>	75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

SECTION 15. Regulatory information ... / >>

VOC (Directive 2004/42/EC) :
Interior / exterior trim and cladding paints for wood, metal or plastic.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)
WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament

SECTION 16. Other information ... / >>

3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ECOSMALTO UNIVERSALE OPACO

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

Intended use Water based, acrylic, matt enamel for interiors and exteriors.

Uses advised against Uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name OIKOS S.P.A. A SOCIO UNICO
Full address Via Cherubini 2
District and Country 47043 Gatteo Mare (FC)
Italia
Tel. 0547 681412
Fax 0547 681430

e-mail address of the competent person responsible for the Safety Data Sheet certificazioniprodoti@oikos-group.it

1.4. Emergency telephone number

For urgent inquiries refer to NHS National Health Service 111

OIKOS S.P.A. a socio unico Company emergency number: 0547 681412
Technical support - Monday to Friday from 8.00-13.00; 13:30 to 16:30

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Hazardous to the aquatic environment, chronic toxicity, category 3 H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains: Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) 1,2-benzisothiazol-3(2H)-one
May produce an allergic reaction.

Precautionary statements:

P501 Dispose of contents / container in accordance with local regulation.
P273 Avoid release to the environment.

SECTION 2. Hazards identification ... / >>

VOC (Directive 2004/42/EC) :

Interior / exterior trim and cladding paints for wood, metal or plastic.

VOC given in g/litre of product in a ready-to-use condition : 95,00
Limit value: 130,00

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
(2-methoxymethylethoxy)propanol CAS 34590-94-8 EC 252-104-2 INDEX REACH Reg. 01-2119450011-60	$0,5 \leq x < 1,5$	Substance with a community workplace exposure limit.
2-(2-butoxyethoxy)ethanol CAS 112-34-5 EC 203-961-6 INDEX REACH Reg. 01-2119475104-44	$0,209 \leq x < 0,215$	Eye Irrit. 2 H319
1,2-benzisothiazol-3(2H)-one CAS 2634-33-5 EC 220-120-9 INDEX REACH Reg. 01-2120761540-60	$0,014 \leq x < 0,02$	Acute Tox. 2 H330, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411 LD50 Oral: >490 mg/kg bw, STA Inhalation mists/powders: 0,051 mg/l, STA Inhalation vapours: 0,501 mg/l
Ammonia CAS 1336-21-6 EC 215-647-6 INDEX PHOSPHORIC ACID	$0,014 \leq x < 0,02$	Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Classification note according to Annex VI to the CLP Regulation: B
CAS 7664-38-2 EC 231-633-2 INDEX	$0,0057 \leq x < 0,0068$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B Skin Corr. 1B H314: \geq 25%, Skin Irrit. 2 H315: \geq 10%, Eye Dam. 1 H318: \geq 25%, Eye Irrit. 2 H319: \geq 10%
CAS 7783-90-6 EC 232-033-3 INDEX	$0,00289 \leq x < 0,00399$	Aquatic Acute 1 H400 M=1000, Aquatic Chronic 1 H410 M=100
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) CAS 55965-84-9	$0,00124 \leq x < 0,00129$	Acute Tox. 1 H330, Acute Tox. 2 H310, Acute Tox. 3 H301, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100
EC 611-341-5 INDEX REACH Reg. 01-2120764691-48		Skin Corr. 1C H314: \geq 0,6%, Skin Irrit. 2 H315: \geq 0,06%, Skin Sens. 1 H317: \geq 0,0015%, Eye Irrit. 2 H319: \geq 0,6% LD50 Oral: >64 mg/kg bw, STA Dermal: 50,001 mg/kg, STA Inhalation vapours: 0,05 mg/l

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

Ammonia

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	14	20	36	50	

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2		4 (C)		INHAL
MAK	DEU	2		4		INHAL
VLA	ESP	1		2		
VLEP	FRA	1	0,2	2	0,5	
VLEP	ITA	1		2		
NDS/NDSch	POL	1		2		
WEL	GBR	1		2		
OEL	EU	1		2		
TLV-ACGIH		1		3		

SECTION 8. Exposure controls/personal protection ... / >>

(2-methoxymethylethoxy)propanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	310	50	310	50			
MAK	DEU	310	50	310	50			
VLA	ESP	308	50			SKIN		
VLEP	FRA	308	50			SKIN		
VLEP	ITA	308	50			SKIN		
NDS/NDSch	POL	240		480		SKIN		
WEL	GBR	308	50			SKIN		
OEL	EU	308	50			SKIN		

Predicted no-effect concentration - PNEC

Normal value in fresh water	19	mg/l
Normal value in marine water	1,9	mg/l
Normal value for fresh water sediment	70,2	mg/kg
Normal value for marine water sediment	7,02	mg/kg
Normal value for water, intermittent release	190	mg/l
Normal value of STP microorganisms	4168	mg/l
Normal value for the terrestrial compartment	2,74	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	36 mg/kg bw/d				
Inhalation			VND	37,2 mg/m3			VND	308 mg/m3
Skin			VND	121 mg/kg bw/d			VND	283 mg/kg bw/d

2-(2-butoxyethoxy)ethanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	67	10	100,5 (C)	15 (C)	Hinweis		
MAK	DEU	67	10	100,5	15	Hinweis		
VLA	ESP	67,5	10	101,2	15			
VLEP	FRA	68	10	101,2	15			
VLEP	ITA	67,5	10	101,2	15			
NDS/NDSch	POL	67		100				
WEL	GBR	67,5	10	101,2	15			
OEL	EU	67,5	10	101,2	15			
TLV-ACGIH		66	10			INHAL		

Predicted no-effect concentration - PNEC

Normal value in fresh water	1,1	mg/l
Normal value in marine water	0,11	mg/l
Normal value for fresh water sediment	4,4	mg/kg
Normal value for marine water sediment	0,44	mg/kg
Normal value of STP microorganisms	200	mg/l
Normal value for the terrestrial compartment	0,32	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI	NPI	5 mg/kg bw/d				
Inhalation	60,7 mg/m3	NPI	40,5 mg/m3	40,5 mg/m3	101,2 mg/m3	NPI	67,5 mg/m3	67,5 mg/m3
Skin		NPI	NPI	50 mg/kg bw/d	NPI	NPI	NPI	83 mg/kg bw/d

SECTION 8. Exposure controls/personal protection ... / >>

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one[EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Predicted no-effect concentration - PNEC								
Normal value in fresh water					3,39			µg/l
Normal value in marine water					3,39			µg/l
Normal value for fresh water sediment					27			µg/kg
Normal value for marine water sediment					27			µg/kg
Normal value of STP microorganisms					230			µg/l
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		110 µg/kg bw/d		90 µg/kg bw/d				
Inhalation	40 µg/m3	NPI	20 µg/m3	NPI	40 µg/m3	NPI	20 µg/m3	NPI
Skin		NPI	NPI	NPI		NPI	NPI	NPI

1,2-benzisothiazol-3(2H)-one

Predicted no-effect concentration - PNEC								
Normal value in fresh water					4,03			µg/l
Normal value in marine water					403			ng/l
Normal value for fresh water sediment					49,9			µg/kg
Normal value for marine water sediment					4,99			µg/kg
Normal value of STP microorganisms					1,03			mg/l
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				1,2 mg/m3				6,81 mg/m3
Skin				345 µg/kg bw/d				966 µg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure

SECTION 8. Exposure controls/personal protection ... / >>

compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	pasty liquid	
Colour	White and the colour chart shades	
Odour	Feeble	
Melting point / freezing point	Not available	
Initial boiling point	> 100 °C	
Flammability	not flammable	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	Not applicable	
Auto-ignition temperature	Not applicable	
pH	8-10	
Kinematic viscosity	Not available	
Dynamic viscosity	3500 cps	
Solubility	Mixable in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,25	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	5,72 % - 71,46	g/litre
VOC (volatile carbon)	2,20 % - 27,52	g/litre
Explosive properties	not applicable	
Oxidising properties	not applicable	

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

Ammonia

Corrodes: aluminium, iron, zinc, copper, copper alloys.

PHOSPHORIC ACID

Decomposes at temperatures above 200°C/392°F.

(2-methoxymethylethoxy)propanol

Forms peroxides with: air.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

Ammonia

Risk of explosion on contact with: strong acids, iodine. May react dangerously with: strong bases.

PHOSPHORIC ACID

Risk of explosion on contact with: nitromethane. May react dangerously with: alkalis, sodium borohydride.

(2-methoxymethylethoxy)propanol

May react violently with: strong oxidising agents.

SECTION 10. Stability and reactivity ... / >>

2-(2-butoxyethoxy)ethanol

May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

(2-methoxymethylethoxy)propanol

Avoid exposure to: sources of heat. Possibility of explosion.

2-(2-butoxyethoxy)ethanol

Avoid exposure to: air.

10.5. Incompatible materials

Ammonia

Incompatible with: silver, silver salts, lead, lead salts, zinc, zinc salts, hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane, acrylic acid.

PHOSPHORIC ACID

Incompatible with: metals, strong alkalis, aldehydes, organic sulphides, peroxides.

2-(2-butoxyethoxy)ethanol

Incompatible with: oxidising substances, strong acids, alkaline metals.

10.6. Hazardous decomposition products

Ammonia

May develop: nitric oxide.

PHOSPHORIC ACID

May develop: phosphoryl oxides.

2-(2-butoxyethoxy)ethanol

May develop: hydrogen.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

2-(2-butoxyethoxy)ethanol

WORKERS: inhalation; contact with the skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

2-(2-butoxyethoxy)ethanol

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

Ammonia

LD50 (Oral):

350 mg/kg Rat

LC50 (Inhalation vapours):

2000 ppm/4h ratto

SECTION 11. Toxicological information ... / >>

PHOSPHORIC ACID
LD50 (Dermal): 2740 mg/kg Rabbit
LD50 (Oral): 1530 mg/kg Rat
LC50 (Inhalation mists/powders): > 0,85 mg/l/1h Rat

(2-methoxymethylethoxy)propanol
LD50 (Dermal): 9510 mg/kg rabbit
LD50 (Oral): > 5000 mg/kg rat
LC50 (Inhalation vapours): 275 mg/l/7h rat

2-(2-butoxyethoxy)ethanol
LD50 (Dermal): 2764 mg/kg Rabbit
LD50 (Oral): 5530 mg/kg Mouse

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

LD50 (Dermal): 1008 mg/kg bw (rat)
STA (Dermal): 50,001 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral): > 64 mg/kg bw 64-561 (rat)
LC50 (Inhalation vapours): > 171 mg/m³ 171-2360 (rat)

1,2-benzisothiazol-3(2H)-one
LD50 (Dermal): 2000 mg/kg bw (rat)
LD50 (Oral): > 490 mg/kg bw 490-670 (rat)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
1,2-benzisothiazol-3(2H)-one

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

SECTION 11. Toxicological information ... / >>

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Ammonia

LC50 - for Fish 47 mg/l/96h Channa punctata
EC50 - for Crustacea 20 mg/l/48h Daphnia magna

(2-methoxymethylethoxy)propanol

LC50 - for Fish > 1000 mg/l/96h Poecilia reticulata
EC50 - for Crustacea 1919 mg/l/48h
EC50 - for Algae / Aquatic Plants 6999 mg/l/72h Skeletonema costatum

2-(2-butoxyethoxy)ethanol

LC50 - for Fish 1300 mg/l
EC50 - for Crustacea 100 mg/l/48h
EC50 - for Algae / Aquatic Plants 100 mg/l/96h

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

LC50 - for Fish > 190 µg/l 190-330
EC50 - for Crustacea > 7 µg/l 7-160
EC50 - for Algae / Aquatic Plants > 6,3 µg/l 6,3-27,3
Chronic NOEC for Fish 46,4 µg/l 35 days
Chronic NOEC for Crustacea > 111 µg/l 11.1-1050

1,2-benzisothiazol-3(2H)-one

LC50 - for Fish > 2,15 mg/l 2,15-22
EC50 - for Crustacea > 2,9 mg/l 2,9-2,94
EC50 - for Algae / Aquatic Plants > 70 µg/l 70-150
Chronic NOEC for Algae / Aquatic Plants > 40,3 µg/l 40-55

SECTION 12. Ecological information ... / >>**12.2. Persistence and degradability****Ammonia**

Degradability: information not available

PHOSPHORIC ACID

Solubility in water > 850000 mg/l

Degradability: information not available

(2-methoxymethylethoxy)propanol

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

2-(2-butoxyethoxy)ethanol

Solubility in water 955 g/l

Rapidly degradable

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Rapidly degradable

1,2-benzisothiazol-3(2H)-one

Rapidly degradable

12.3. Bioaccumulative potential**2-(2-butoxyethoxy)ethanol**

Partition coefficient: n-octanol/water 1

BCF < 100

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessmentOn the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.**12.6. Endocrine disrupting properties**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations**13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

Not applicable



SECTION 14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Information not available

VOC (Directive 2004/42/EC) :

Interior / exterior trim and cladding paints for wood, metal or plastic.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 1	Acute toxicity, category 1
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H330	Fatal if inhaled.
H310	Fatal in contact with skin.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

02 / 03 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ECOSMALTO UNIVERSALE SATINATO

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

Intended use Water based, acrylic, satin enamel for interiors and exteriors.

Uses advised against Uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name OIKOS S.P.A. A SOCIO UNICO
Full address Via Cherubini 2
District and Country 47043 Gatteo Mare (FC)
Italia
Tel. 0547 681412
Fax 0547 681430

e-mail address of the competent person responsible for the Safety Data Sheet certificazioniprodoti@oikos-group.it

1.4. Emergency telephone number

For urgent inquiries refer to NHS National Health Service 111

OIKOS S.P.A. a socio unico Company emergency number: 0547 681412
Technical support - Monday to Friday from 8.00-13.00; 13:30 to 16:30

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Hazardous to the aquatic environment, chronic toxicity, category 3 H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains: Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) 1,2-benzisothiazol-3(2H)-one
May produce an allergic reaction.

Precautionary statements:

P501 Dispose of contents / container in accordance with local regulation.
P273 Avoid release to the environment.

SECTION 2. Hazards identification ... / >>

VOC (Directive 2004/42/EC) :

Interior / exterior trim varnishes and woodstains.

VOC given in g/litre of product in a ready-to-use condition :

95,00

Limit value:

130,00

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
(2-methoxymethylethoxy)propanol		
CAS 34590-94-8	$1,5 \leq x < 2,5$	Substance with a community workplace exposure limit.
EC 252-104-2		
INDEX		
REACH Reg. 01-2119450011-60		
2-(2-butoxyethoxy)ethanol		
CAS 112-34-5	$0,1162 \leq x < 0,1212$	Eye Irrit. 2 H319
EC 203-961-6		
INDEX 603-096-00-8		
REACH Reg. 01-2119475104-44		
1,2-benzisothiazol-3(2H)-one		
CAS 2634-33-5	$0,024 \leq x < 0,03$	Acute Tox. 2 H330, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
EC 220-120-9		Skin Sens. 1 H317: $\geq 0,05\%$
INDEX 613-088-00-6		LD50 Oral: >490 mg/kg bw, STA Inhalation mists/powders: 0,051 mg/l, STA Inhalation vapours: 0,501 mg/l
REACH Reg. 01-2120761540-60		
Ammonia		
CAS 1336-21-6	$0,00449 \leq x < 0,00559$	Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Classification note according to Annex VI to the CLP Regulation: B
EC 215-647-6		
INDEX 007-001-01-2		
CAS 7783-90-6	$0,00289 \leq x < 0,00399$	Aquatic Acute 1 H400 M=1000, Aquatic Chronic 1 H410 M=100
EC 232-033-3		
INDEX		
PHOSPHORIC ACID		
CAS 7664-38-2	$0,0014 \leq x < 0,00235$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B
EC 231-633-2		Skin Corr. 1B H314: $\geq 25\%$, Skin Irrit. 2 H315: $\geq 10\%$, Eye Dam. 1 H318: $\geq 25\%$, Eye Irrit. 2 H319: $\geq 10\%$
INDEX 015-011-00-6		
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)		
CAS 55965-84-9	$0,00109 \leq x < 0,00114$	Acute Tox. 1 H330, Acute Tox. 2 H310, Acute Tox. 3 H301, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100
EC 611-341-5		Skin Corr. 1C H314: $\geq 0,6\%$, Skin Irrit. 2 H315: $\geq 0,06\%$, Skin Sens. 1 H317: $\geq 0,0015\%$, Eye Irrit. 2 H319: $\geq 0,6\%$
INDEX 613-167-00-5		LD50 Oral: >64 mg/kg bw, STA Dermal: 50,001 mg/kg, STA Inhalation vapours: 0,05 mg/l
REACH Reg. 01-2120764691-48		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

Ammonia

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	14	20	36	50	

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2		4 (C)		INHAL
MAK	DEU	2		4		INHAL
VLA	ESP	1		2		
VLEP	FRA	1	0,2	2	0,5	
VLEP	ITA	1		2		
NDS/NDSch	POL	1		2		
WEL	GBR	1		2		
OEL	EU	1		2		
TLV-ACGIH		1		3		

SECTION 8. Exposure controls/personal protection ... / >>

(2-methoxymethylethoxy)propanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m ³	ppm	mg/m ³	ppm			
AGW	DEU	310	50	310	50			
MAK	DEU	310	50	310	50			
VLA	ESP	308	50			SKIN		
VLEP	FRA	308	50			SKIN		
VLEP	ITA	308	50			SKIN		
NDS/NDSch	POL	240		480		SKIN		
WEL	GBR	308	50			SKIN		
OEL	EU	308	50			SKIN		

Predicted no-effect concentration - PNEC

Normal value in fresh water	19	mg/l
Normal value in marine water	1,9	mg/l
Normal value for fresh water sediment	70,2	mg/kg
Normal value for marine water sediment	7,02	mg/kg
Normal value for water, intermittent release	190	mg/l
Normal value of STP microorganisms	4168	mg/l
Normal value for the terrestrial compartment	2,74	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	36 mg/kg bw/d				
Inhalation			VND	37,2 mg/m ³			VND	308 mg/m ³
Skin			VND	121 mg/kg bw/d			VND	283 mg/kg bw/d

2-(2-butoxyethoxy)ethanol

Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m ³	ppm	mg/m ³	ppm			
AGW	DEU	67	10	100,5 (C)	15 (C)	Hinweis		
MAK	DEU	67	10	100,5	15	Hinweis		
VLA	ESP	67,5	10	101,2	15			
VLEP	FRA	68	10	101,2	15			
VLEP	ITA	67,5	10	101,2	15			
NDS/NDSch	POL	67		100				
WEL	GBR	67,5	10	101,2	15			
OEL	EU	67,5	10	101,2	15			
TLV-ACGIH		66	10			INHAL		

Predicted no-effect concentration - PNEC

Normal value in fresh water	1,1	mg/l
Normal value in marine water	0,11	mg/l
Normal value for fresh water sediment	4,4	mg/kg
Normal value for marine water sediment	0,44	mg/kg
Normal value of STP microorganisms	200	mg/l
Normal value for the terrestrial compartment	0,32	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI	NPI	5 mg/kg bw/d				
Inhalation	60,7 mg/m ³	NPI	40,5 mg/m ³	40,5 mg/m ³	101,2 mg/m ³	NPI	67,5 mg/m ³	67,5 mg/m ³
Skin		NPI	NPI	50 mg/kg bw/d	NPI	NPI	NPI	83 mg/kg bw/d

SECTION 8. Exposure controls/personal protection ... / >>

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one[EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Predicted no-effect concentration - PNEC								
Normal value in fresh water					3,39			µg/l
Normal value in marine water					3,39			µg/l
Normal value for fresh water sediment					27			µg/kg
Normal value for marine water sediment					27			µg/kg
Normal value of STP microorganisms					230			µg/l
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		110 µg/kg bw/d		90 µg/kg bw/d				
Inhalation	40 µg/m3	NPI	20 µg/m3	NPI	40 µg/m3	NPI	20 µg/m3	NPI
Skin		NPI	NPI	NPI		NPI	NPI	NPI

1,2-benzisothiazol-3(2H)-one

Predicted no-effect concentration - PNEC								
Normal value in fresh water					4,03			µg/l
Normal value in marine water					403			ng/l
Normal value for fresh water sediment					49,9			µg/kg
Normal value for marine water sediment					4,99			µg/kg
Normal value of STP microorganisms					1,03			mg/l
Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				1,2 mg/m3				6,81 mg/m3
Skin				345 µg/kg bw/d				966 µg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure

SECTION 8. Exposure controls/personal protection ... / >>

compliance with environmental standards.
 Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	pasty liquid	
Colour	White and the colour chart shades	
Odour	Feeble	
Melting point / freezing point	Not available	
Initial boiling point	> 100 °C	
Flammability	not flammable	
Lower explosive limit	Not applicable	
Upper explosive limit	Not applicable	
Flash point	Not applicable	
Auto-ignition temperature	Not applicable	
pH	8-10	
Kinematic viscosity	Not available	
Dynamic viscosity	5000 cps	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1,2	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	5,45 % - 65,43	g/litre
VOC (volatile carbon)	2,48 % - 29,72	g/litre
Explosive properties	not applicable	
Oxidising properties	not applicable	

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

Ammonia

Corrodes: aluminium,iron,zinc,copper,copper alloys.

PHOSPHORIC ACID

Decomposes at temperatures above 200°C/392°F.

(2-methoxymethylethoxy)propanol

Forms peroxides with: air.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

Ammonia

Risk of explosion on contact with: strong acids,iodine.May react dangerously with: strong bases.

PHOSPHORIC ACID

Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

(2-methoxymethylethoxy)propanol

May react violently with: strong oxidising agents.

SECTION 10. Stability and reactivity ... / >>

2-(2-butoxyethoxy)ethanol

May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

(2-methoxymethylethoxy)propanol

Avoid exposure to: sources of heat. Possibility of explosion.

2-(2-butoxyethoxy)ethanol

Avoid exposure to: air.

10.5. Incompatible materials

Ammonia

Incompatible with: silver, silver salts, lead, lead salts, zinc, zinc salts, hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane, acrylic acid.

PHOSPHORIC ACID

Incompatible with: metals, strong alkalis, aldehydes, organic sulphides, peroxides.

2-(2-butoxyethoxy)ethanol

Incompatible with: oxidising substances, strong acids, alkaline metals.

10.6. Hazardous decomposition products

Ammonia

May develop: nitric oxide.

PHOSPHORIC ACID

May develop: phosphoryl oxides.

2-(2-butoxyethoxy)ethanol

May develop: hydrogen.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

2-(2-butoxyethoxy)ethanol

WORKERS: inhalation; contact with the skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

2-(2-butoxyethoxy)ethanol

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

Ammonia

LD50 (Oral):

350 mg/kg Rat

LC50 (Inhalation vapours):

2000 ppm/4h ratto

SECTION 11. Toxicological information ... / >>

PHOSPHORIC ACID
LD50 (Dermal): 2740 mg/kg Rabbit
LD50 (Oral): 1530 mg/kg Rat
LC50 (Inhalation mists/powders): > 0,85 mg/l/1h Rat

(2-methoxymethylethoxy)propanol
LD50 (Dermal): 9510 mg/kg rabbit
LD50 (Oral): > 5000 mg/kg rat
LC50 (Inhalation vapours): 275 mg/l/7h rat

2-(2-butoxyethoxy)ethanol
LD50 (Dermal): 2764 mg/kg Rabbit
LD50 (Oral): 5530 mg/kg Mouse

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

LD50 (Dermal): 1008 mg/kg bw (rat)
STA (Dermal): 50,001 mg/kg estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral): > 64 mg/kg bw 64-561 (rat)
LC50 (Inhalation vapours): > 171 mg/m³ 171-2360 (rat)

1,2-benzisothiazol-3(2H)-one
LD50 (Dermal): 2000 mg/kg bw (rat)
LD50 (Oral): > 490 mg/kg bw 490-670 (rat)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
1,2-benzisothiazol-3(2H)-one

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

SECTION 11. Toxicological information ... / >>

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Ammonia

LC50 - for Fish 47 mg/l/96h Channa punctata
EC50 - for Crustacea 20 mg/l/48h Daphnia magna

(2-methoxymethylethoxy)propanol

LC50 - for Fish > 1000 mg/l/96h Poecilia reticulata
EC50 - for Crustacea 1919 mg/l/48h
EC50 - for Algae / Aquatic Plants 6999 mg/l/72h Skeletonema costatum

2-(2-butoxyethoxy)ethanol

LC50 - for Fish 1300 mg/l
EC50 - for Crustacea 100 mg/l/48h
EC50 - for Algae / Aquatic Plants 100 mg/l/96h

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

LC50 - for Fish > 190 µg/l 190-330
EC50 - for Crustacea > 7 µg/l 7-160
EC50 - for Algae / Aquatic Plants > 6,3 µg/l 6,3-27,3
Chronic NOEC for Fish 46,4 µg/l 35 days
Chronic NOEC for Crustacea > 111 µg/l 11.1-1050

1,2-benzisothiazol-3(2H)-one

LC50 - for Fish > 2,15 mg/l 2,15-22
EC50 - for Crustacea > 2,9 mg/l 2,9-2,94
EC50 - for Algae / Aquatic Plants > 70 µg/l 70-150
Chronic NOEC for Algae / Aquatic Plants > 40,3 µg/l 40-55

SECTION 12. Ecological information ... / >>

12.2. Persistence and degradability

Ammonia

Degradability: information not available

PHOSPHORIC ACID

Solubility in water > 850000 mg/l

Degradability: information not available

(2-methoxymethylethoxy)propanol

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

2-(2-butoxyethoxy)ethanol

Solubility in water 955 g/l

Rapidly degradable

Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Rapidly degradable

1,2-benzisothiazol-3(2H)-one

Rapidly degradable

12.3. Bioaccumulative potential

2-(2-butoxyethoxy)ethanol

Partition coefficient: n-octanol/water 1

BCF < 100

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

Not applicable

SECTION 14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

<u>Product</u>	
<u>Point</u>	3 - 40
<u>Contained substance</u>	
<u>Point</u>	75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Information not available

VOC (Directive 2004/42/EC) :
Interior / exterior trim varnishes and woodstains.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)
WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 1	Acute toxicity, category 1
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H330	Fatal if inhaled.
H310	Fatal in contact with skin.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

02 / 03 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.