


**P.U. RESIN FOR QUARTZ SAND
112440**

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

- 1.1 Product identifier:** P.U. RESIN FOR QUARTZ SAND
112440
- Other means of identification:**
Non-applicable
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Resin
Resin used to create decorative quartz coatings. It is mixed with quartz aggregates.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
Berling S.A.
Thesi Aghia Paraskevi
32011 Inofita - Viotia - Greece
Phone.: +302262031663 - Fax: +302262031293
info@berling.gr
www.berling.gr
- 1.4 Emergency telephone number:** +30 210 7793 777 (Greek Poison Info Center)

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Warning
- 
- Hazard statements:**
Eye Irrit. 2: H319 - Causes serious eye irritation.
Skin Irrit. 2: H315 - Causes skin irritation.
- Precautionary statements:**
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P264: Wash thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of the contents/containers in accordance with the current legislation on waste treatment
- Supplementary information:**
EUH208: Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
- 2.3 Other hazards:**
Product contains PBT/vPvB substances: Decamethylcyclopentasiloxane, Octamethylcyclotetrasiloxane, Dodecamethylcyclohexasiloxane

*** Changes with regards to the previous version*

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Polyurethane resin

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification		Concentration
CAS: 111-76-2 EC: 203-905-0 Index: 603-014-00-0 REACH: 01-2119475108-36-XXXX	2-butoxyethanol⁽¹⁾	ATP CLP00 Regulation 1272/2008 Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	4,9 - <9,9 %
CAS: 108-01-0 EC: 203-542-8 Index: 603-047-00-0 REACH: 01-2119492298-24-XXXX	2-dimethylaminoethanol⁽¹⁾	ATP CLP00 Regulation 1272/2008 Acute Tox. 4: H302+H312+H332; Flam. Liq. 3: H226; Skin Corr. 1B: H314 - Danger	0,9 - <2,4 %
CAS: 2634-33-5 EC: 220-120-9 Index: 613-088-00-6 REACH: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one⁽¹⁾	ATP CLP00 Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	<0,09 %
CAS: 52-51-7 EC: 200-143-0 Index: 603-085-00-8 REACH: 01-2119980938-15-XXXX	bronopol (INN)⁽¹⁾	ATP ATP01 Regulation 1272/2008 Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT SE 3: H335 - Danger	<0,09 %
CAS: 55965-84-9 EC: Non-applicable Index: 613-167-00-5 REACH: Non-applicable	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)⁽¹⁾	ATP ATP13 Regulation 1272/2008 Acute Tox. 2: H310+H330; Acute Tox. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314; Skin Sens. 1A: H317; EUH071 - Danger	<0,09 %

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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SECTION 4: FIRST AID MEASURES (continued)

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

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

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SECTION 7: HANDLING AND STORAGE (continued)

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 35 °C

Maximum time: 0 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

Identification	Occupational exposure limits		
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	IOELV (8h)	20 ppm	98 mg/m ³
	IOELV (STEL)	50 ppm	246 mg/m ³

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	89 mg/kg	Non-applicable	125 mg/kg	Non-applicable
	Inhalation	1091 mg/m ³	246 mg/m ³	98 mg/m ³	Non-applicable
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	1,2 mg/kg	Non-applicable	0,25 mg/kg	Non-applicable
	Inhalation	5,28 mg/m ³	13,53 mg/m ³	1,76 mg/m ³	1,76 mg/m ³
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,966 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	6,81 mg/m ³	Non-applicable
bronopol (INN) CAS: 52-51-7 EC: 200-143-0	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	3,5 mg/m ³	2,5 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Non-applicable	Non-applicable	6,3 mg/kg	Non-applicable
	Dermal	89 mg/kg	Non-applicable	75 mg/kg	Non-applicable
	Inhalation	426 mg/m ³	147 mg/m ³	59 mg/m ³	Non-applicable

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	Oral	Non-applicable	Non-applicable	0,126 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,438 mg/m³	Non-applicable
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,345 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	1,2 mg/m³	Non-applicable
bronopol (INN) CAS: 52-51-7 EC: 200-143-0	Oral	0,5 mg/kg	Non-applicable	0,18 mg/kg	Non-applicable
	Dermal	Non-applicable	Non-applicable	0,7 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	0,6 mg/m³	Non-applicable

PNEC:

Identification					
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	STP	463 mg/L	Fresh water	8,8 mg/L	
	Soil	2,33 mg/kg	Marine water	0,88 mg/L	
	Intermittent	26,4 mg/L	Sediment (Fresh water)	34,6 mg/kg	
	Oral	0,02 g/kg	Sediment (Marine water)	3,46 mg/kg	
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	STP	10 mg/L	Fresh water	0,066 mg/L	
	Soil	0,01 mg/kg	Marine water	0,004 mg/L	
	Intermittent	0,661 mg/L	Sediment (Fresh water)	0,246 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,015 mg/kg	
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	STP	1,03 mg/L	Fresh water	0,00403 mg/L	
	Soil	3 mg/kg	Marine water	0,000403 mg/L	
	Intermittent	0,0011 mg/L	Sediment (Fresh water)	0,0499 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,00499 mg/kg	
bronopol (INN) CAS: 52-51-7 EC: 200-143-0	STP	0,43 mg/L	Fresh water	0,01 mg/L	
	Soil	0,5 mg/kg	Marine water	0,001 mg/L	
	Intermittent	0,003 mg/L	Sediment (Fresh water)	0,041 mg/kg	
	Oral	Non-applicable	Sediment (Marine water)	0,003 mg/kg	

8.2 Exposure controls:

A.- General security and hygiene measures in the work place



As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018



As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	Not available
V.O.C. density at 25 °C:	Not available
Average carbon number:	Not available
Average molecular weight:	Not available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Not available
Colour:	Not available
Odour:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	113 °C
Vapour pressure at 25 °C:	2998 Pa
Vapour pressure at 50 °C:	11670,93 Pa (11,67 kPa)
Evaporation rate at 25 °C:	Non-applicable *

Product description:

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Density at 25 °C:	1000 - 1060 kg/m ³
Relative density at 25 °C:	Non-applicable *
Dynamic viscosity at 25 °C:	Non-applicable *
Kinematic viscosity at 25 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 25 °C:	Non-applicable *
Partition coefficient n-octanol/water 25 °C:	Non-applicable *
Solubility in water at 25 °C:	
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *
Flammability:	
Flash Point:	Non Flammable (>60 °C)
Heat of combustion:	Non-applicable *
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	238 °C
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *
Explosive:	
Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *
9.2 Other information:	
Surface tension at 25 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Precaution	Precaution	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

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SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION **

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health .

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

*** Changes with regards to the previous version*

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SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	LD50 oral	1182 mg/kg	Rat
	LD50 dermal	1220 mg/kg	Rabbit
	LC50 inhalation	11 mg/L (4 h)	Rat
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LD50 oral	1414 mg/kg	Rat
	LD50 dermal	1060 mg/kg	Rabbit
	LC50 inhalation	11 mg/L (4 h)	Rat
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LD50 oral	500 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L	
bronopol (INN) CAS: 52-51-7 EC: 200-143-0	LD50 oral	500 mg/kg	Rat
	LD50 dermal	1600 mg/kg	Rabbit
	LC50 inhalation	>5 mg/L	
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LD50 oral	100 mg/kg	Rat
	LD50 dermal	300 mg/kg	Rat
	LC50 inhalation	Non-applicable	

** Changes with regards to the previous version

SECTION 12: ECOLOGICAL INFORMATION **

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

Identification	Acute toxicity		Species	Genus
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	LC50	146 mg/L (96 h)	Leuciscus idus	Fish
	EC50	98.4 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	35 mg/L (72 h)	Scenedesmus subspicatus	Algae
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
bronopol (INN) CAS: 52-51-7 EC: 200-143-0	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae

12.2 Persistence and degradability:

Identification	Degradability		Biodegradability	
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	BOD5	0,71 g O2/g	Concentration	100 mg/L
	COD	2,2 g O2/g	Period	14 days
	BOD5/COD	0,32	% Biodegradable	96 %
2-dimethylaminoethanol CAS: 108-01-0 EC: 203-542-8	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	14 days
	BOD5/COD	Non-applicable	% Biodegradable	60,5 %
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	BOD5	Non-applicable	Concentration	100 mg/L
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	0 %

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SECTION 12: ECOLOGICAL INFORMATION ** (continued)

Identification	Degradability		Biodegradability	
bronopol (INN)	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 52-51-7	COD	Non-applicable	Period	28 days
EC: 200-143-0	BOD5/COD	Non-applicable	% Biodegradable	0 %

12.3 Bioaccumulative potential:

Identification	Bioaccumulation potential	
2-butoxyethanol	BCF	3
CAS: 111-76-2	Pow Log	0.83
EC: 203-905-0	Potential	Low
2-dimethylaminoethanol	BCF	3
CAS: 108-01-0	Pow Log	-0.73
EC: 203-542-8	Potential	Low
1,2-benzisothiazol-3(2H)-one	BCF	2
CAS: 2634-33-5	Pow Log	1.45
EC: 220-120-9	Potential	Low
bronopol (INN)	BCF	0.6
CAS: 52-51-7	Pow Log	-0.64
EC: 200-143-0	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
2-butoxyethanol	Koc	8	Henry	1,621E-1 Pa·m³/mol
CAS: 111-76-2	Conclusion	Very High	Dry soil	No
EC: 203-905-0	Surface tension	2,729E-2 N/m (25 °C)	Moist soil	Yes
2-dimethylaminoethanol	Koc	1.2	Henry	1,8E-4 Pa·m³/mol
CAS: 108-01-0	Conclusion	Very High	Dry soil	No
EC: 203-542-8	Surface tension	3,111E-2 N/m (25 °C)	Moist soil	No

12.5 Results of PBT and vPvB assessment:

Product contains PBT/vPvB substances: Decamethylcyclopentasiloxane, Octamethylcyclotetrasiloxane, Dodecamethylcyclohexasiloxane

12.6 Other adverse effects:

Not described

**** Changes with regards to the previous version**

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27	Non dangerous

Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

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SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:

- | | |
|---|----------------|
| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group: | Non-applicable |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Special regulations: | Non-applicable |
| Tunnel restriction code: | Non-applicable |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | Non-applicable |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

- | | |
|---|----------------|
| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group: | Non-applicable |
| 14.5 Marine pollutant: | No |
| 14.6 Special precautions for user | |
| Special regulations: | Non-applicable |
| EmS Codes: | |
| Physico-Chemical properties: | see section 9 |
| Limited quantities: | Non-applicable |
| Segregation group: | Non-applicable |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:

- | | |
|---|----------------|
| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group: | Non-applicable |
| 14.5 Environmental hazards: | No |
| 14.6 Special precautions for user | |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: | Non-applicable |

SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), bronopol (INN), 2-methyl-2H-isothiazol-3-one, 1,3-bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione, (ethylenedioxy)dimethanol.

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SECTION 15: REGULATORY INFORMATION (continued)

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: 1,2-benzisothiazol-3(2H)-one (Product-type 2, 6, 9, 11, 12, 13) ; bronopol (INN) (Product-type 2, 6, 11, 12, 22) ; reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (Product-type 2, 4, 6, 11, 12, 13)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,

—tricks and jokes,

—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Contains Octamethylcyclotetrasiloxane, Decamethylcyclopentasiloxane. 1. | Shall not be placed on the market in wash-off cosmetic products in a concentration equal to or greater than 0,1 % by weight of either substance, after 31 January 2020. | 2. | For the purposes of this entry, "wash-off cosmetic products" means cosmetic products as defined in Article 2(1)(a) of Regulation (EC) No 1223/2009 that, under normal conditions of use, are washed off with water after application.'

Occupational exposure to respirable crystalline silica must be controlled pursuant to Directive (EU) 2019/130.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION **

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

· New declared substances

2-dimethylaminoethanol (108-01-0)

1,2-benzisothiazol-3(2H)-one (2634-33-5)

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)

bronopol (INN) (52-51-7)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

· Pictograms

· Hazard statements

· Precautionary statements

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.

H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

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SECTION 16: OTHER INFORMATION ** (continued)

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.
Acute Tox. 3: H301 - Toxic if swallowed.
Acute Tox. 4: H302 - Harmful if swallowed.
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Eye Dam. 1: H318 - Causes serious eye damage.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
Skin Irrit. 2: H315 - Causes skin irritation.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
STOT SE 3: H335 - May cause respiratory irritation.

Classification procedure:

Skin Irrit. 2: Calculation method

Eye Irrit. 2: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

*** Changes with regards to the previous version*

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -