




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

- 1.1 Product identifier:** PCF18_472ML - HONEYDEW
- Other means of identification:**
- UFI:** YT51-D08Y-G00M-XCYX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- Relevant uses (Consumer use):
- Ceramic enamel
- Relevant uses (Professional users):
- Ceramic enamel
- Relevant uses (Industrial user):
- Ceramic enamel
- 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:**
- CERADEL
ZA Le Prouet, 53 Rue de la Filature
87350 PANAZOL - FRANCE
Phone: +33 (0)5 55 35 02 35
contact@ceradel.fr
<https://www.ceradel.fr/fr/>
- 1.4 Emergency telephone number:**

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.
- Acute Tox. 1: Acute inhalation toxicity, Category 1, H330
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Skin Sens. 1: Sensitisation, skin, Category 1, H317
STOT RE 2: Specific target organ toxicity — Repeated exposure, Hazard Category 2 (Oral), H373
- 2.2 Label elements:**
- CLP Regulation (EC) No 1272/2008:**
- Danger**
- 
- Hazard statements:**
- Acute Tox. 1: H330 - Fatal if inhaled.
Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Skin Sens. 1: H317 - May cause an allergic skin reaction.
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral).
- 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/respiratory protection/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P501: Dispose of contents/container according to the separated collection system used in your municipality.
- Supplementary information:**
- EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

- CONTINUED ON NEXT PAGE -



SECTION 2: HAZARDS IDENTIFICATION (continued)

Substances that contribute to the classification

2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol (CAS: 4719-04-4)

UFI: YT51-D08Y-G00M-XCYX

The product packaging must include: child-resistant fastenings, tactile warning.

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

Endocrine-disrupting properties: The product does not meet the criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Not relevant

3.2 Mixture:

Chemical description: Powdered colourant/s

Components:

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

Identification	Chemical name/Classification	Concentration
CAS: 65997-18-4 EC: 266-047-6 Index: Not relevant REACH: 01-2119548361-42-XXXX	Frits, chemicals (exempt)⁽¹⁾ Not classified	10 - <25%
	Regulation 1272/2008	
CAS: 1314-13-2 EC: 215-222-5 Index: 030-013-00-7 REACH: 01-2119463881-32-XXXX	zinc oxide⁽²⁾ ATP CLP00	2.5 - <10%
	Regulation 1272/2008 Aquatic Acute 1: H400; Aquatic Chronic 1: H410 - Warning	
CAS: 12069-69-1 EC: 235-113-6 Index: 029-020-00-8 REACH: 01-2119513711-50-XXXX	Copper(II) carbonate--copper(II) hydroxide (1:1)⁽²⁾ ATP ATP17	1 - <2.5%
	Regulation 1272/2008 Acute Tox. 4: H302+H332; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Irrit. 2: H319 - Warning	
CAS: 4719-04-4 EC: 225-208-0 Index: 613-114-00-6 REACH: 01-2119529226-41-XXXX	2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol⁽²⁾ Self-classified	1 - <2.5%
	Regulation 1272/2008 Acute Tox. 2: H330; Acute Tox. 4: H302; Skin Sens. 1: H317; STOT RE 1: H372 - Danger	

⁽¹⁾ Substance with a Union workplace exposure limit

⁽²⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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

Other information:

Identification	M-factor
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	Acute 10 Chronic 10

Identification	Specific concentration limit
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol CAS: 4719-04-4 EC: 225-208-0	% (w/w) >=0,1: Skin Sens. 1 - H317

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity	Genus
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	LD50 oral 500 mg/kg LD50 dermal Not relevant LC50 inhalation vapour 11 mg/L *	Rat
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol CAS: 4719-04-4 EC: 225-208-0	LD50 oral 1000 mg/kg LD50 dermal Not relevant LC50 inhalation vapour 0,5 mg/L	Rat

- CONTINUED ON NEXT PAGE -



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Acute toxicity	Genus
----------------	----------------	-------

* Equivalent ATE value of the substance applicable to the exposure route of the product. For the ATE value associated with the exposure route of the substance, see section 11.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of changes on the skin (stinging, redness, rashes, blisters), seek medical advice with this Safety Data Sheet

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:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

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

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

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

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Non-applicable

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. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

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:

- CONTINUED ON NEXT PAGE -



SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

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

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

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

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.: 5 °C

Maximum Temp.: 35 °C

Maximum time: 6 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.

- CONTINUED ON NEXT PAGE -



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		
Frits, chemicals (exempt) CAS: 65997-18-4 EC: 266-047-6	IOELV (8h)		0,15 mg/m ³
	IOELV (STEL)		

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
zinc oxide CAS: 1314-13-2 EC: 215-222-5	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	83 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	5 mg/m ³	0,5 mg/m ³
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	137 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1 mg/m ³	1 mg/m ³
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol CAS: 4719-04-4 EC: 225-208-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	0,2 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
zinc oxide CAS: 1314-13-2 EC: 215-222-5	Oral	Not relevant	Not relevant	0,83 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	83 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	2,5 mg/m ³	Not relevant
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	Oral	0,082 mg/kg	Not relevant	0,041 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	Not relevant	Not relevant
	Inhalation	Not relevant	Not relevant	Not relevant	Not relevant

PNEC:

Identification					
zinc oxide CAS: 1314-13-2 EC: 215-222-5	STP	0,1 mg/L	Fresh water		0,0206 mg/L
	Soil	35,6 mg/kg	Marine water		0,0061 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)		117,8 mg/kg
	Oral	Not relevant	Sediment (Marine water)		56,5 mg/kg
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	STP	0,23 mg/L	Fresh water		0,0078 mg/L
	Soil	65 mg/kg	Marine water		0,0052 mg/L
	Intermittent	Not relevant	Sediment (Fresh water)		87 mg/kg
	Oral	Not relevant	Sediment (Marine water)		676 mg/kg
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol CAS: 4719-04-4 EC: 225-208-0	STP	5,5 mg/L	Fresh water		0,007 mg/L
	Soil	0,002 mg/kg	Marine water		0,001 mg/L
	Intermittent	0,007 mg/L	Sediment (Fresh water)		0,03 mg/kg
	Oral	Not relevant	Sediment (Marine water)		0,003 mg/kg

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional 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.

- CONTINUED ON NEXT PAGE -





SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

B.- Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours (Filter type: P3/FFP3)		EN 405:2002+A1:2010	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

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 ISO 21420:2020 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.- Eye and face protection



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 20347:2022	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 20345:2022 y EN 13832-1:2019

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

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:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

Volatile organic compounds:

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

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Not relevant
Average molecular weight:	Not relevant

- CONTINUED ON NEXT PAGE -



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 relevant *
Colour:	Cream, Grey
Odour:	Not relevant *
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	386 °C
Vapour pressure at 20 °C:	5,919E-5 Pa
Vapour pressure at 50 °C:	0,01 Pa (0 kPa)
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	1509,9 kg/m ³
Relative density at 20 °C:	1,51
Dynamic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	Not relevant *
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Not relevant *
-----------------------------	----------------

9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

Surface tension at 20 °C:	Not relevant *
---------------------------	----------------

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

- CONTINUED ON NEXT PAGE -



PCF18 472ML - HONEYDEW

Printing: 27/06/2025

Date of compilation: 04/02/2025

Version: 1

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refractive index: Not relevant *

Total lead: 0 ppm

*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 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated 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	Not applicable	Not applicable	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:

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 hazard classes as defined in Regulation (EC) No 1272/2008:

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

B- Inhalation (acute effect):

- Acute toxicity : Inhalation after prolonged exposure may be lethal.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

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 hazardous for the effects mentioned. For more information see section 3.
 - IARC: Frits, chemicals (exempt) (1); Titanium dioxide (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous for this effect. For more information see section 3.

- CONTINUED ON NEXT PAGE -



SECTION 11: TOXICOLOGICAL INFORMATION (continued)

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

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

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

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

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous 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 hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Product-specific toxicological information:

Acute toxicity		Genus
LD50 oral	763 mg/kg	Rat
LD50 dermal	>2000 mg/kg	Rat
LC50 inhalation vapour	0,34 mg/L (4 h)	Rat

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
zinc oxide CAS: 1314-13-2 EC: 215-222-5	LD50 oral	7950 mg/kg	Mouse
	LD50 dermal		
	LC50 inhalation dust		
Copper(II) carbonate--copper(II) hydroxide (1:1) CAS: 12069-69-1 EC: 235-113-6	LD50 oral	500 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation dust	1,5 mg/L	
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol CAS: 4719-04-4 EC: 225-208-0	LD50 oral	1000 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation vapour	0,5 mg/L	Rat

Acute Toxicity Estimate (ATE mix):

ATE mix		Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	0 %
Dermal	>2000 mg/kg (Calculation method)	0 %
LC50 inhalation vapour	>20 mg/L (4 h) (Calculation method)	0 %

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Product-specific aquatic toxicity:

- CONTINUED ON NEXT PAGE -



SECTION 12: ECOLOGICAL INFORMATION (continued)

Acute toxicity	Species	Genus
LC50 1,55 mg/L (96 h)	Danio rerio	Fish

Substance-specific aquatic toxicity:

Acute toxicity:

Identification	Concentration	Species	Genus
zinc oxide	LC50 0,82 mg/L (96 h)	Oncorhynchus kisutch	Fish
CAS: 1314-13-2	EC50 3,4 mg/L (48 h)	Daphnia magna	Crustacean
EC: 215-222-5	EC50 Not relevant		
Copper(II) carbonate--copper(II) hydroxide (1:1)	LC50 0,2 mg/L (96 h)	Salmo gairdneri	Fish
CAS: 12069-69-1	EC50 Not relevant		
EC: 235-113-6	EC50 Not relevant		

Chronic toxicity:

Identification	Concentration	Species	Genus
zinc oxide	NOEC 0,44 mg/L	Oncorhynchus mykiss	Fish
CAS: 1314-13-2 EC: 215-222-5	NOEC 0,031 mg/L	Daphnia magna	Crustacean
Copper(II) carbonate--copper(II) hydroxide (1:1)	NOEC 0,023 mg/L	Oncorhynchus mykiss	Fish
CAS: 12069-69-1 EC: 235-113-6	NOEC 0,005 mg/L	Daphnia pulex	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability	Biodegradability
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol	BOD5 Not relevant	Concentration 50.7 mg/L
CAS: 4719-04-4	COD Not relevant	Period 8 days
EC: 225-208-0	BOD5/COD Not relevant	% Biodegradable 100 %

12.3 Bioaccumulative potential:

Not relevant

12.4 Mobility in soil:

Identification	Absorption/desorption	Volatility
2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol	Koc 10	Henry Not relevant
CAS: 4719-04-4	Conclusion Very High	Dry soil Not relevant
EC: 225-208-0	Surface tension Not relevant	Moist soil Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
10 12 11*	wastes from glazing containing heavy metals	Hazardous

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

HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity

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-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

- CONTINUED ON NEXT PAGE -



SECTION 13: DISPOSAL CONSIDERATIONS (continued)

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

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2025 and RID 2025:



- 14.1 UN number or ID number:** UN1602
- 14.2 UN proper shipping name:** DYE, LIQUID, TOXIC, N.O.S. (Copper(II) carbonate--copper(II) hydroxide (1:1); zinc oxide)
- 14.3 Transport hazard class(es):** 6.1
Labels: 6.1
- 14.4 Packing group:** I
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
Special regulations: 274
Tunnel restriction code: C/E
Physico-Chemical properties: see section 9
Limited quantities: 0
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:



- 14.1 UN number or ID number:** UN1602
- 14.2 UN proper shipping name:** DYE, LIQUID, TOXIC, N.O.S. (Copper(II) carbonate--copper(II) hydroxide (1:1); zinc oxide)
- 14.3 Transport hazard class(es):** 6.1
Labels: 6.1
- 14.4 Packing group:** I
- 14.5 Marine pollutant:** Yes
- 14.6 Special precautions for user**
Special regulations: 274
EmS Codes: F-A, S-A
Physico-Chemical properties: see section 9
Limited quantities: 0
Segregation group: Not relevant
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:



SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number or ID number:** UN1602
14.2 UN proper shipping name: DYE, LIQUID, TOXIC, N.O.S. (Copper(II) carbonate--copper(II) hydroxide (1:1); zinc oxide)
14.3 Transport hazard class(es): 6.1
Labels: 6.1
14.4 Packing group: I
14.5 Environmental hazards: Yes
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Maritime transport in bulk according to IMO instruments: Not relevant

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 2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol.
- Article 95, REGULATION (EU) No 528/2012: *Copper(II) carbonate--copper(II) hydroxide (1:1) (12069-69-1) - PT: (8) ; 2,2',2''-(hexahydro-1,3,5- triazine-1,3,5-triyl)triethanol (4719-04-4) - PT: (6,11,12,13)*
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: *Frits, chemicals (exempt) (65997-18-4)*
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

Seveso III:

Section	Description	Lower-tier requirements	Upper-tier requirements
H1	ACUTE TOXIC	5	20
E2	ENVIRONMENTAL HAZARDS	200	500

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.

Laboral exposure to respirable crystalline silica must be controlled in accordance with Directive (EU) 2022/431, of the European Parliament and of the Council, of March 9, 2022, amending Directive 2004/37/EC, relating to the protection of workers against risks related to exposure to carcinogens or mutagens during work.

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

The product packaging must include: child-resistant fastenings, tactile warning.

Legislation related to safety data sheets:



SECTION 16: OTHER INFORMATION (continued)

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 (COMMISSION REGULATION (EU) 2020/878).

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

Not relevant

Texts of the legislative phrases mentioned in section 2:

H411: Toxic to aquatic life with long lasting effects.

H317: May cause an allergic skin reaction.

H373: May cause damage to organs through prolonged or repeated exposure (Oral).

H302: Harmful if swallowed.

H330: Fatal if inhaled.

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:

Acute Tox. 2: H330 - Fatal if inhaled.

Acute Tox. 4: H302 - Harmful if swallowed.

Acute Tox. 4: H302+H332 - Harmful if swallowed 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 Irrit. 2: H319 - Causes serious eye irritation.

Skin Sens. 1: H317 - May cause an allergic skin reaction.

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure. (Oral).

Classification procedure:

Aquatic Chronic 2: Calculation method

Skin Sens. 1: Calculation method

STOT RE 2: Calculation method

Acute Tox. 4: Calculation method

Acute Tox. 1: Calculation method

Advice related to training:

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: 5day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

LC50: Lethal Concentration 50

EC50: Effective concentration 50

LogPOW: Octanolwater partition coefficient

Koc: Partition coefficient of organic carbon

UFI: unique formula identifier

IARC: International Agency for Research on Cancer

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 -