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

Code: **160511-100027**
Product name **HYDROGUARD Zinc 81 Grigio**

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

Intended use **Component "A" for two components water based paint.**

1.3. Details of the supplier of the safety data sheet

Name **Ti.Pi.Ci. S.a.s.**
Full address **Via Val Lerone, 21**
District and Country **16011 Arenzano (GE)**
Italy
Tel. +39 010 9111368
Fax +39 010 9134188
e-mail address of the competent person
responsible for the Safety Data Sheet **laboris@tipici.net**

1.4. Emergency telephone number

For urgent inquiries refer to **Centro Antiveleni di Bergamo +39800883300 (Azienda Ospedaliera Papa Giovanni XXII - Bergamo)**
Centro Antiveleni di Firenze +39055/7947819 (CAV Ospedale Careggi - Firenze)
Centro Antiveleni di Foggia +39800183459 (Az. Osp. Univ. Foggia - Foggia)
Centro Antiveleni di Milano +3902/66101029 (CAO Ospedale Niguarda Cà Granda - Milano)
Centro Antiveleni di Napoli +39081/5453333 (CAV Ospedale Cardarelli - Napoli)
Centro Antiveleni di Pavia +390382/24444 (CAV IRCCS Fondazione Maugeri - Pavia)
Centro Antiveleni di Roma +3906/3054343 (CAV Policlinico Gemelli - Roma)
Centro Antiveleni di Roma +3906/49978000 (CAV Policlinico Umberto I - Roma)
Centro Antiveleni di Roma +3906/68593726 (CAV Osp. Pediatrico Bambino Gesù - Roma)
Centro Antiveleni di Verona +39800011858 (Azienda Ospedaliera Integrata - Verona)

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:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.

Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic 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: Warning

Hazard statements:

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P370+P378	In case of fire: use alcohol-resistant foam, CO2, powders, water spray to extinguish.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.

Contains: Polymer with formaldehyde, glycidyl ether, polymers with glycidyl tolyl ether and triethylenetetramine
3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE
(3-Aminopropyl)triethoxysilane

Product not intended for uses provided for by Directive 2004/42/EC.

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
ZINC POWDER - ZINC DUST		
INDEX 030-001-01-9	50 ≤ x < 90	Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10
EC 231-175-3		
CAS 7440-66-6		
PROPAN-2-OL		
INDEX 603-117-00-0	3,5 ≤ x < 4	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC 200-661-7		
CAS 67-63-0		
1-METHOXY-2-PROPANOL		
INDEX 603-064-00-3	3 ≤ x < 3,5	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-539-1		
CAS 107-98-2		
REACH Reg. 01-2119457435-35-XXXX		
ZINC OXIDE		
INDEX 030-013-00-7	2,5 ≤ x < 3	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 215-222-5		
CAS 1314-13-2		
REACH Reg. 01-2119463881-32		
Polymer with formaldehyde, glycidyl ether, polymers with glycidyl tolyl ether and triethylenetetramine		
INDEX	1,5 ≤ x < 2	Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411
EC -		
CAS 99377-78-3		
2-(propyloxy)ethanol		
INDEX 603-095-00-2	1 ≤ x < 1,5	Flam. Liq. 3 H226, Acute Tox. 4 H312, Eye Irrit. 2 H319
EC 220-548-6		STA Dermal: 1100 mg/kg
CAS 2807-30-9		
Polyethoxylated tallow amine		
INDEX -	0,4 ≤ x < 0,5	Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1
EC 500-153-8		LD50 Oral: 500 mg/kg
CAS 61791-26-2		
(3-Aminopropyl)triethoxysilane		
INDEX -	0,1 ≤ x < 0,2	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1 H317
EC 213-048-4		STA Oral: 500 mg/kg
CAS 919-30-2		
(Z)-N-9-octadecenylpropane-1,3-diamine		
INDEX	0,1 ≤ x < 0,2	Acute Tox. 4 H302, STOT RE 1 H372, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC -		STA Oral: 500 mg/kg
CAS 7173-62-8		
3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE		
INDEX 612-067-00-9	0,1 ≤ x < 0,2	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A

		H317
EC 220-666-8		Skin Sens. 1A H317: ≥ 0,001%
CAS 2855-13-2		LD50 Oral: 1030 mg/kg
REACH Reg. 01-2119480150-50-XXXX		
(z)-9-octadecenylamin		
INDEX -	0,1 ≤ x < 0,2	Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1
EC 204-015-5		STA Oral: 500 mg/kg
CAS 112-90-3		
2-BUTOXYETHANOL		
INDEX 603-014-00-0	0,1 ≤ x < 0,2	Acute Tox. 3 H331, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 203-905-0		LD50 Oral: 1200 mg/kg, LC50 Inhalation vapours: 3 mg/l/4h
CAS 111-76-2		
2-ETHYLESANOL		
INDEX -	0 ≤ x < 0,1	Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 203-234-3		
CAS 104-76-7		

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
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. 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.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

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. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. 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
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; 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

ZINC POWDER - ZINC DUST
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	2		4		INHAL
MAK	DEU	0,1		0,4		RESP

PROPAN-2-OL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
VLA	ESP	500	200	1000	400	
VLEP	FRA			980	400	
WEL	GBR	999	400	1250	500	
TLV-ACGIH		492	200	983	400	

1-METHOXY-2-PROPANOL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
VLA	ESP	375	100	568	150	SKIN
VLEP	FRA	188	50	375	100	SKIN
VLEP	ITA	375	100	568	150	SKIN

WEL	GBR	375	100	560	150	SKIN
OEL	EU	375	100	568	150	SKIN
TLV-ACGIH		184	50	368	100	

ZINC OXIDE
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	2		4		INHAL
MAK	DEU	0,1		0,4		RESP
VLA	ESP	2		10		
VLEP	FRA	5				
TLV-ACGIH		2		10		RESP

2-(propyloxy)ethanol
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	86	20			

2-BUTOXYETHANOL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
AGW	DEU	49	10	98 (C)	20 (C)	SKIN	
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	
WEL	GBR	123	25	246	50	SKIN	
OEL	EU	98	20	246	50	SKIN	
TLV-ACGIH		97	20				

2-ETHYLESANOL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	5,4	1			

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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.

Provide an emergency shower with face and eye wash station.

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 II 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.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

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 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	thixotropic liquid	
Colour	grey	
Odour	characteristic of solvent	
Melting point / freezing point	not available	
Initial boiling point	0 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	35 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	

Kinematic viscosity	not available
Solubility	not available
Partition coefficient: n-octanol/water	not available
Vapour pressure	not available
Density and/or relative density	3.81 (+-) 0,050
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 2010/75/EU)	9,44 %	-	359,76	g/litre
VOC (volatile carbon)	6,31 %	-	240,57	g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

1-METHOXY-2-PROPANOL

Dissolves various plastic materials.Stable in normal conditions of use and storage.

Absorbs and disolves in water and in organic solvents. With air it may slowly form explosive peroxides.

2-BUTOXYETHANOL

Decomposes under the effect of heat.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ZINC POWDER - ZINC DUST

Risk of explosion on contact with: ammonium nitrate,ammonium sulphide,barium peroxide,lead nitride,chlorates,chromium trioxide,sodium hydroxide,oxidising agents,performic acid,acids,tetrachloromethane,water.May react dangerously with: alkaline hydroxides,bromine pentafluoride,calcium chloride,fluorine,hexachloroethane,nitrobenzene,potassium dioxide,carbon disulphide,silver.Reacts with: strong acids,strong alkalis.May develop: hydrogen.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents,strong acids.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

May react dangerously with: strong oxidising agents,concentrated inorganic acids.

2-BUTOXYETHANOL

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

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

1-METHOXY-2-PROPANOL

Avoid exposure to: air.

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Avoid contact with: strong acids,strong oxidants.

2-BUTOXYETHANOL

Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

ZINC POWDER - ZINC DUST

Incompatible with: water,acids,strong alkalis.

1-METHOXY-2-PROPANOL

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

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

2-BUTOXYETHANOL

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

1-METHOXY-2-PROPANOL
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; 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

1-METHOXY-2-PROPANOL
The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	>2000 mg/kg

PROPAN-2-OL

LD50 (Dermal):	12800 mg/kg Rat
LD50 (Oral):	4710 mg/kg Rat
LC50 (Inhalation vapours):	72,6 mg/l/4h Rat

1-METHOXY-2-PROPANOL

LD50 (Dermal):	13000 mg/kg Rabbit
LD50 (Oral):	5300 mg/kg Rat
LC50 (Inhalation vapours):	54,6 mg/l/4h Rat

2-(propyloxy)ethanol

LD50 (Dermal):	1,337 mg/kg
STA (Dermal):	1100 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):	3,089 mg/kg

Polyethoxylated tallow amine

LD50 (Dermal):	10 mg/kg
LD50 (Oral):	500 mg/kg

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

LD50 (Oral):	1030 mg/kg

(Z)-N-9-octadecenylpropane-1,3-diamine

LD50 (Oral):	< 200 mg/kg

(3-Aminopropyl)triethoxysilane

LD50 (Dermal):	4,29 mg/kg coniglio
LD50 (Oral):	1,57 mg/kg ratto

(z)-9-octadecenylamin

LD50 (Oral):	1,95 mg/kg ratto

2-BUTOXYETHANOL

LD50 (Oral):	1200 mg/kg Guinea pig
LC50 (Inhalation vapours):	3 mg/l/4h 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

Sensitising for the skin

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

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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 highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.
12.1. Toxicity

ZINC POWDER - ZINC DUST	
LC50 - for Fish	7,1 mg/l/96h Nothobranchius guentheri
EC50 - for Crustacea	2,8 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,015 mg/l/72h Pseudokirchneriella subcapitata
ZINC OXIDE	
LC50 - for Fish	1,1 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea	1,7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,14 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	0,53 mg/l
Chronic NOEC for Algae / Aquatic Plants	0,024 mg/l

Polyethoxylated tallow amine

LC50 - for Fish	1 µg/l Pimephales promelas

(3-Aminopropyl)triethoxysilane

LC50 - for Fish	> 934 mg/l/96h Pesce - Zebra danio
EC50 - for Crustacea	< 331 mg/l/48h Dafnia
EC50 - for Algae / Aquatic Plants	> 1 mg/l/72h

12.2. Persistence and degradability

ZINC POWDER - ZINC DUST

Solubility in water	0,1 - 100 mg/l

Degradability: information not available

2-BUTOXYETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

PROPAN-2-OL

Rapidly degradable

3-AMINOMETHYL 3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Solubility in water	1000 - 10000 mg/l

NOT rapidly degradable

ZINC OXIDE

Solubility in water	2,9 mg/l

NOT rapidly degradable

12.3. Bioaccumulative potential

2-BUTOXYETHANOL

Partition coefficient: n-octanol/water	0,81

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water	< 1

PROPAN-2-OL

Partition coefficient: n-octanol/water	0,05

ZINC OXIDE

BCF	> 175

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 ≥ 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.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 1263

14.2. UN proper shipping name

ADR / RID:	PAINT or PAINT RELATED MATERIAL
IMDG:	PAINT or PAINT RELATED MATERIAL
IATA:	PAINT or PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3
IMDG:	Class: 3	Label: 3

IATA:	Class: 3	Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 650		
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

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: P5c-E1

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 ≥ 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

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

VOC (Directive 2004/42/EC) :

Two - pack performance coatings.

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:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2

Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
STOT SE 3	Specific target organ toxicity - single exposure, category 3
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic 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
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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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)
22. Delegated Regulation (UE) 2022/692 (XVIII 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 / 08 / 09 / 11 / 12 / 14 / 15 / 16.