Safety Data Sheet

Complies with Annex II of REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code:	**0005470**
Name	**OLIO RAVVIVANTE**
Chemical name and synonyms	**OLIO RAVVIVANTE**

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

Sector of use	**SU22 – Professional uses SU21-Consumer uses**
Product category	**PC09a – Products for coatings and varnishes, thinners and pickling solutions**
Description/Usage	**Oil-wax impregnator for wood outdoors**

1.3. Details of the supplier of the safety data sheet

Business name	**MARBEC SRL**
Address	**VIA CROCE ROSSA 5/i**
Location and State	**51037 MONTALE (PISTOIA)** **ITALY**
	tel. +039 0573/959848
	fax
e-mail of the competent person, responsible for the safety data sheet	**info@marbec.it**

1.4. Emergency telephone number

For urgent inquiries please contact

MARBEC srl +390573959848 h8.30-13 h14-18 or +393348578502
Telephone number of Poison Control Centers active 24/24 hours
IRCSS Maugeri Foundation –
Pavia 0039-0382-24444
CAV Ospedali Riuniti –
Bergamo 0039-800-883300
CAV Niguarda Ca` Granda Hospital –
Milan 0039-02-66101029
CAV Careggi Hospital - Florence 0039-055-7947819
CAV Gemelli Polyclinic –
Rome 0039-06-3054343
CAV Umberto I Polyclinic –
Rome 0039-06 49978000
CAV Cardarelli Hospital –
Naples 0039-081 5453333
CAV Integrated Hospital Verona - Verona 800011858

SECTION 2. Hazards identification

2.1. Substance or mixture classification

The product is classified as dangerous pursuant to the provisions of Regulation (EC) 1272/2008 (CLP) (and subsequent amendments and adjustments).
The product therefore requires a safety data sheet that complies with the provisions of Regulation (EU) 2020/878.
Any additional information regarding risks to health and/or the environment is given in sections. 11 and 12 of this sheet.

Hazard classification and indications:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labeling pursuant to Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adjustments.

Hazard pictograms:

Warnings: Danger

Indications of danger:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains: Cobalt bis (2-ethylhexanoate). May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames or other ignition sources. Not smoking.
P331	DO NOT induce vomiting.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P261	Avoid breathing dust / fume / gas / mist / vapors / spray.
P312	Call a POISON CENTER / doctor / if you feel unwell. . .
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P273	Avoid release to the environment.

Contains:

Hydrocarbons, C9- Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Hydrocarbons, C9, aromatics

VOC (Directive 2004/42/CE) :

Wood stains that form a film of minimal thickness.

VOC expressed in g/litre of ready-to-use product:	408.00
Maximum limit :	700.00

2.3. Other dangers

Do not accumulate cloths, rags, sponges, sawdust, etc. impregnated with the product, they could self-ignite. Dispose of them after wetting them with water.

Based on available data, the product does not contain PBT or vPvB substances in a percentage ≥ 0.1%.

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

SECTION 3. Composition/information on ingredients

3.2. Blends

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"		
CAS - EC 919-857-5 INDEX - REACH Reg. 01-2119463258-33	50 ≤ x < 100	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066 Asp. Tox. 1H304: ≥ 1%
Hydrocarbons, C9, aromatics		
CAS - EC 918-668-5 INDEX 649-356-00-4 REACH Reg. 01-2119455851-35-XXXX	1 ≤ x < 2.5	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411
Boiled linseed oil		
CAS 68649-95-6 EC 272-038-8 INDEX - Reg. No. 01-2119484875-20-xxxx	30 ≤ x < 50	
Reaction products bis (2,2,6,6-tetramethyl-4-piperidinyl decanededioate with 1,1-dimethyl ethyl hydroperoxide and octane		
CAS 129757-67-1 EC 406-750-9 INDEX - REACH Reg. 01-0000015625-69	1 ≤ x < 3	Aquatic Chronic 4 H413

Blend of C7-C9 alkyl 3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]propionates		
CAS 127519-17-9	1 ≤ x < 2.5	Aquatic Chronic 2 H411
EC 407-000-3		
INDEX -		
REACH Reg. 01-0000015648-61		
Cobalt bis(2-ethylhexanoate).		
CAS 136-52-7	0 ≤ x < 0.5	Repr. 2 H361f, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412
CE 205-250-6		
INDEX -		
REACH Reg. 01-2119524678-29-xxxx		
Zirconium 2-ethylhexanoate		
CAS 22464-99-9	0 ≤ x < 0.5	Repr. 2H361d
EC 245-018-1		
INDEX -		
REACH Reg. 01-2119979088-21-xxxx		
Calcium 2-ethylhexanoate		
CAS 136-51-6	0 ≤ x < 0.5	Repr. 2 H361, Eye Dam. 1 H318
CE 205-249-0		
INDEX -		
REACH Reg. 01-2119978297-19-0001		
DIPROPYLENE GLYCOL MONOMETHYL ETHER		
CAS 34590-94-8	0 ≤ x < 0.5	Substance with a Community workplace exposure limit.
EC 252-104-2		
INDEX -		
REACH Reg. 01-2119450011-60-xxxx		

The complete text of the danger indications (H) is given in section 16 of the sheet.

NOTE: The dearomatized white spirit in this product is a UVCB complex (PrC3), CAS na, EC 919-857-5, n. INDEX: na ("C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics" hydrocarbons" a complex and variable combination of paraffinic, cyclic and aromatic hydrocarbons having carbon numbers predominantly in the range of C9 through C11 and point boiling point in the range 130°C - 210°C). Some manufacturers provide the following related CAS: 64742-48-9.
Applicable Note P of Annex 1. Benzene concentration < 0.1 & by weight.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: wash immediately and abundantly with water for at least 15 minutes. Remove contact lenses, if present, if the situation permits the operation to be carried out easily. Continue rinsing. Consult a doctor immediately.

SKIN: wash immediately and abundantly with soap and water. Take off contaminated clothing. In case of irritation, swelling or redness, consult a specialist doctor. Wash the contaminated garments before reusing them. For thermal burns, cool the injured area. Hold the burned area under cold running water for at least five minutes or until the pain subsides. Avoid a general hypothermia. When using high pressure equipment, product injection may occur even with no apparent external injury. In this case, immediately transfer the injured person to hospital. Don't wait for symptoms to appear.

INHALATION: In case of difficulty breathing, take the injured person to fresh air and keep him in a comfortable position for breathing. If the injured person is unconscious and not breathing, check that there are no obstructions to breathing and give artificial respiration by specialized personnel. If necessary, perform external cardiac massage and consult a doctor. If the victim is breathing, keep him in the recovery position. Administer oxygen if necessary.

INGESTION: do not induce vomiting to avoid the risk of aspiration. Immediately transport the injured person to hospital. Don't wait for symptoms to appear. In case of spontaneous vomiting, keep the head down to avoid the risk of aspiration of the vomit into the lungs.

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

No specific information on symptoms and effects caused by the product is known.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
Contact with eyes may cause irritation. Skin contact: redness. Repeated exposure may cause skin dryness or cracking. Inhalation: Headache, dizziness, drowsiness, nausea and other central nervous system effects. Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression. If ingested, material may be aspirated into lungs and cause chemical pneumonitis.

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
If accidentally ingested, the product can enter the lungs due to its low viscosity and cause the rapid development of serious lung lesions (keep under medical supervision for 48 hours).
Notes to physician: Treat symptomatically.

Boiled linseed oil
Immediate medical assistance. Symptomatic treatment

SECTION 5. Fire fighting measures

5.1. Fire fighting

SUITABLE EXTINGUISHING MEANS
The means of extinction are: carbon dioxide and chemical powder. For product leaks and spills that have not ignited, water spray can be used to disperse flammable vapors and protect those involved in stopping the leak.

UNSUITABLE EXTINGUISHING MEANS
Do not use jets of water.
Water is not effective in extinguishing fire however it can be used to cool closed containers exposed to flame preventing bursts and explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE
If the product is involved in large quantities in a fire, it can considerably aggravate it. Avoid breathing combustion products.

5.3. Recommendations for firefighters

GENERAL INFORMATIONS
In the event of fire, immediately cool the containers to avoid the danger of explosions (decomposition of the product, overpressure) and the development of substances potentially hazardous to health. Always wear full fire protection gear. If possible without risk, remove the containers containing the product from the fire.

EQUIPMENT
Normal fire fighting clothing, such as an open circuit compressed air breathing apparatus (EN 137), flame retardant suit (EN469), flame retardant gloves (EN 659) and firefighter boots (HO A29 or A30).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stop the leak if there is no danger.
Wearing of suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for those involved in the work and for emergency interventions.

Keep unequipped people away. Use explosion-proof equipment. Remove all sources of ignition (cigarettes, flames, sparks, etc.) or heat from the area where the leak occurred.

6.2. Environmental precautions

Prevent the product from entering sewers, surface waters and groundwater.

6.3. Methods and materials for containment and cleaning up

Suck the spilled product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.
Provide sufficient ventilation of the place affected by the leak. Disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information regarding individual protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for Safe Handling

Ensure an adequate earthing system for plants and people. Avoid contact with eyes and skin. Do not inhale any dusts or vapors or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid dispersion of the product in the environment.

Keep away from heat, sparks and open flames, do not smoke or use matches or lighters. Without adequate ventilation, vapors can accumulate on the ground and ignite even from a distance, if ignited, with the danger of flashback. Avoid the accumulation of electrostatic charges. To avoid the danger of fire and explosion, never use compressed air for handling. Open containers carefully as they may be pressurized.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

Use appropriate personal protective equipment if necessary. Avoid contact with skin and eyes. Do not swallow. Avoid breathing vapours. Do not release into the environment. Make sure that adequate housekeeping measures are in place. Contaminated material must not accumulate in workplaces and must never be kept in a pocket. Keep away from food and drink. Do not eat, drink or smoke while using the product. Wash hands thoroughly after handling. Do not reuse contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in the original container. Keep in a ventilated place, away from sources of ignition. Keep containers hermetically sealed. Keep product in clearly labeled containers. Avoid overheating. Avoid violent shocks. Store containers away from any incompatible materials, checking section 10.

Store in a cool, well-ventilated place away from sources of heat, open flames, sparks and other sources of ignition.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

Keep away from strong oxidants and reducing agents. Keep away from food, drink and feed. The structure of the storage area, the characteristics of the tanks, the equipment and the operating procedures must comply with the relevant European, national or local legislation. Storage facilities must be equipped with special systems to prevent soil and water contamination in the event of leaks or spills. The cleaning, inspection and maintenance of the internal structure of the storage tanks must be carried out by qualified and correctly equipped personnel, as established by national, local legislation or company regulations. Before accessing the storage tanks and starting any type of intervention in a confined space, carry out adequate reclamation, check the atmosphere and verify the oxygen content and the degree of flammability. Keep separate from oxidizing agents. Suitable Materials: Use mild steel or stainless steel for containers and liners. For the construction of containers or internal linings, use material approved and suitable for the use of the product. Some synthetic materials may not be suitable for containers or liners based on material characteristics and intended uses. Check the compatibility of the materials with the manufacturer in relation to the conditions of use. If the product is supplied in containers, keep only in the original container or in a container suitable for the type of product. Keep containers tightly closed and properly labeled. Empty containers may contain flammable product residues, which may cause a fire or explosion hazard. Open slowly to control any pressure release. Do not weld, braze, drill, cut or incinerate empty containers unless they have been properly sanitized.

Storage class TRGS 510 (Germany):
3

7.3. Particular end uses

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Normative requirements:

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	Spain	Professional exhibition limits for chemical agents in Spain 2021
BETWEEN	France	Values limiters of professional exposure to chemical agents in France. ED 984 - INRS
ITA	Italy	Legislative Decree 9 April 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valoris-limite de exposição profissional indicative for chemical agents. Decreto-Lei n.º 35/2020 of 13 July, protection of workers against the risks associated with exposure during the work of cancerous or mutagenic agents
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	EU OEL	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.
	CPR TLV	

ACGIH TLVs and BEIs – Appendix H

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"

Threshold limit value						
Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
CPR TLV		1200	197			

Predicted no-effect concentration for the environment - PNEC	
Reference value in fresh water	NPI
Reference value in sea water	NPI
Reference value for sediments in fresh water	NPI
Reference value for sediments in marine water	NPI
Reference value for water, intermittent release	NPI
Reference value for STP microorganisms	NPI
Reference value for the food chain (secondary poisoning)	NPI

Reference value for the terrestrial compartment	NPI
Reference value for the atmosphere	NPI

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				125 mg/kg bw/d				
Inhalation				185mg/m3 24h				871 mg/m3 8h
Dermal				125 mg/kg bw/d				208 mg/kg bw/d

Boiled linseed oil

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral			VND	8.33 mg/kg bw/d				
Inhalation			VND	14.5mg/m3			VND	49 mg/m3
Dermal			VND	41.7 mg/kg bw/d			VND	69.4 mg/kg bw/d

Hydrocarbons, C9, aromatics

Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL extension	EU	100				

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral								11 mg/kg bw/d
Inhalation				32mg/m3				150mg/m3
Dermal				11 mg/kg bw/d				25 mg/kg bw/d

Cobalt bis(2-ethylhexanoate).

Predicted no-effect concentration for the environment - PNEC

Reference value in fresh water	0.00051	mg/l
Reference value in sea water	0.00236	mg/l
Reference value for sediments in fresh water	9.5	mg/kg
Reference value for the terrestrial compartment	7.9	mg/kg
Reference value for the atmosphere	0.37	mg/lt

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				0.0558 mg/kg bw/d				
Inhalation			0.037mg/m3				0.2351 mg/m3	

Zirconium 2-ethylhexanoate

Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL extension	EU	5				(as Zr)

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				4.51 mg/kg bw/d				
Inhalation				8.13 mg/m3				32.97 mg/m3
Dermal				3.25 mg/kg bw/d				6.49 mg/kg bw/d

Calcium 2-ethylhexanoate

Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL extension	EU	5000				

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Exposure route	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic	Sharp rooms	Acute systemic	Chronic premises	Chronic systemic
Oral				2.83 mg/kg bw/d				
Inhalation				9.86 mg/m3				39.98mg/m3
Dermal				2.83 mg/kg bw/d				5.67 mg/kg bw/d

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold limit value

Guy	State	TWA/8h		STEL/15min		Notes / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW extension	DEU	310	50	310	50	
MAK	DEU	310	50	310	50	
VLA extension	ESP	308	50			SKIN
VLEP extension	BETWEEN	308	50			SKIN
VLEP extension	ITA	308	50			SKIN
VLE	PRT	308	50			SKIN
WEL	GBR	308	50			SKIN
OEL extension	EU	308	50			SKIN

Legend:

(C) = CEILING ; INALAB = Inhalable Fraction; RESPIR = Respirable Fraction; THORAC = Thoracic fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected; NPI = No Hazards Identified.

8.2. Exposure controls

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the

workplace through effective local aspiration.
When selecting personal protective equipment, seek advice from your chemical suppliers if necessary.
Personal protective equipment must bear the CE marking which certifies their compliance with current standards.

HAND PROTECTION
Protect your hands with category III work gloves (ref. standard EN 374).
For the final choice of work glove material, the following must be considered: compatibility, degradation, breakthrough time and permeation.
In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it cannot be foreseen. The gloves have a wear time that depends on the duration and method of use.

SKIN PROTECTION
Wear long-sleeved work clothes and category I professional safety footwear (ref. Regulation 2016/425 and standard EN ISO 20344). Wash with soap and water after removing protective clothing.

Evaluate the opportunity to provide antistatic clothing in case the work environment presents a risk of explosiveness.

EYE PROTECTION
It is advisable to wear airtight protective goggles (ref. standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) of the substance or one or more of the substances present in the product is exceeded, it is advisable to wear a mask with type A filter whose class (1, 2 or 3) must be chosen in relation to the limit concentration for use. (ref. standard EN 14387). If gases or vapors of a different nature and/or gases or vapors with particles (aerosols, fumes, mists, etc.) are present, it is necessary to provide combined type filters.
The use of respiratory protection means is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. However, the protection offered by masks is limited.
In the event that the substance in question is odorless or its olfactory threshold is higher than the relevant TLV-TWA and in case of emergency, wear an open-circuit compressed air respirator (ref. standard EN 137) or a plug-in respirator external air (ref. standard EN 138). For the correct choice of respiratory protection device, refer to the EN 529 standard.

ENVIRONMENTAL EXPOSURE CONTROLS
Emissions from production processes, including those from ventilation equipment, should be controlled for compliance with environmental protection legislation.

Product residues must not be discharged uncontrolled into waste water or watercourses.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

Considering that the use of adequate technical measures should always take priority over personal protective equipment, ensure good ventilation in the workplace through effective local aspiration. When selecting personal protective equipment, seek advice from your chemical suppliers if necessary. Personal protective equipment must bear the CE marking which certifies their compliance with current standards. HANDS PROTECTION: Protect your hands with category III work gloves (ref. standard EN 374). For the final choice of work glove material, the following must be considered: compatibility, degradation, breakthrough time and permeation. In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it cannot be foreseen. The gloves have a wear time which depends on the duration and method of use. Presumably suitable materials for the gloves: nitrile, PVC or PVA (polyvinyl alcohol) with a chemical protection index of at least 5 (permeation time > 240 minutes). Use gloves in compliance with the conditions and limits set by the manufacturer. If necessary, refer to the UNI EN 374 standard. Gloves must be subjected to periodic inspection and replaced in case of wear, perforation or contamination. SKIN PROTECTION: Wear category I professional long-sleeved overalls and safety footwear (ref. Directive 89/686/EEC and standard EN ISO 20344). Wash with soap and water after removing protective clothing. Evaluate the opportunity to provide astatic clothing if the work environment presents a risk of explosiveness. In case of handling the product, use antistatic work clothes with long sleeves, in relation to the risks associated with the classification of the work areas, if necessary, heat resistant and thermally insulated. In case of contamination of clothing, replace and clean it immediately. ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from manufacturing processes, including those from ventilation equipment should be controlled for compliance with environmental protection legislation. Do not release into the environment. Storage facilities must be equipped with special systems to prevent soil and water contamination in the event of leaks or spills. Prevent the release of undissolved substances or recover them from wastewater. Do not distribute sludge generated by industrial water treatment on natural soils. Sludge generated from industrial water treatment must be incinerated, kept in containment or treated. Other information Minimize exposure to mists/vapours/aerosols. Before accessing the storage tanks and starting any type of intervention in a confined space, carry out adequate reclamation, check the atmosphere and check the oxygen content and the degree of flammability.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property	Value	Information
Physical state	liquid	
Color	yellowish	
Odor	characteristic	
Melting or freezing point	Not available	
Initial boiling point	165°C	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	23 ≤ T ≤ 60°C	
Self-ignition temperature	Not available	
pH	Not applicable	Reason for missing data: the substance/mixture is not soluble (in water)
Kinematic viscosity	Not available	
Solubility	immiscible with water	
Partition coefficient: n-octanol/water	Not available	
Vapor pressure	Not available	
Density and/or Relative Density	0.85 kg/l	
Relative vapor density	Not available	
Particle characteristics	Not applicable	

9.2. More info

9.2.1. Information relating to classes of physical hazards

Information not available

9.2.2. Other security features

VOC (Directive 2004/42/CE) :	48.00% - 408.00 g/litre
Explosive properties	not explosive
Oxidizing properties	non-oxidant

SECTION 10. Stability and reactivity

10.1. Reactivity

If finely distributed and in contact with air, there is a risk of self-ignition under certain conditions.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
Vapors can form explosive mixtures with air. Contact with strong oxidants (such as peroxides and chromates) may cause a fire hazard. A mixture with

nitrates or other strong oxidants (such as chlorates, perchlorates and liquid oxygen) can generate an explosive mass. Sensitivity to heat, friction and shock cannot be estimated in advance.

10.4. Conditions to avoid

Avoid overheating. Avoid the accumulation of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Acrolein, carbon monoxide, carbon dioxide (carbon dioxide)

SECTION 11. Toxicological information

11.1. Information on the hazard classes defined in Regulation (EC) no. 1272/2008

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
local effects. Product information:
Skin contact. Symptoms: Redness. Repeated exposure may cause skin dryness or cracking. Eye Contact: Contact with eyes may cause irritation.
Inhalation: Inhalation of vapors may cause drowsiness and dizziness. May cause irritation. Inhalation of vapors can cause headache, nausea, vomiting and altered state of consciousness.
Ingestion: if accidentally ingested the product can enter the lungs due to its low viscosity and cause the rapid development of serious lung lesions (keep under medical supervision for 48 hours). Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.
Other adverse effects
Vapor concentrations above the recommended exposure levels are irritating to the eyes and respiratory tract, may cause headache and dizziness, have an anesthetic effect and cause other effects on the central nervous system. Repeated and/or prolonged skin contact with low viscosity materials may degrease the skin with possible development of irritation and dermatitis. Small amounts of liquid aspirated into the lungs upon ingestion or vomiting may cause chemical pneumonitis or pulmonary oedema.

Metabolism, kinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Immediate, delayed and chronic effects resulting from short and long term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 5000mg/kg
LC50 (Inhalation of vapours):	> 9300 mg/l/4h

Boiled linseed oil

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 4790 mg/kg rat

Hydrocarbons, C9, aromatics

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 2000 mg/kg
LC50 (Inhalation of vapours):	> 5mg/l/4h

Blend of C7-C9 alkyl 3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]propionates

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 2000 mg/kg rat

Reaction products bis (2,2,6,6-tetramethyl-4-piperidinyl decanededioate with 1,1-dimethyl ethyl hydroperoxide and octane

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 2000 mg/kg rat

Cobalt bis(2-ethylhexanoate).

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	3129 mg/kg rat

Zirconium 2-ethylhexanoate

LD50 (Dermal):	> 2000 mg/kg rabbit
LD50 (Oral):	> 2000 mg/kg
LC50 (Inhalation of mists/dust):	> 8800 mg/m3/1h rat

Calcium 2-ethylhexanoate

LD50 (Dermal):	> 2000 mg/kg Rat - wistar
LD50 (Oral):	2043 mg/kg Rat - Fischer 344

SKIN CORROSION / SKIN IRRITATION

Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
Repeated exposure may cause skin dryness or cracking. Slightly irritating to skin on prolonged exposure.

SERIOUS EYE DAMAGE / EYE IRRITATION

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
EYE CONTACT: May cause mild, short-term eye discomfort. Based on test data for materials of similar structure to OECD Guideline 405.

RESPIRATORY OR SKIN SENSITIZATION

May cause an allergic reaction.
Contains:
Cobalt bis(2-ethylhexanoate).

Respiratory sensitization

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

It is assumed not to be a respiratory sensitizer.

Skin sensitization

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

It is assumed not to be a skin sensitizer per OECD Guideline 406.

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
The mutagenic potential of the substance has been extensively studied in a range of in-vivo and in-vitro assays. Genetic toxicity: negative. It is assumed not to be a germ cell mutagen. Based on test data for materials of similar structure to OECD Guideline 471 473 474 476 478 479.

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
This product is not classified as a carcinogen. It is assumed that it does not cause cancer. Based on test data for materials of similar structure to OECD Guideline 453.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
No information available. It is assumed not to be a reproductive toxicant. Based on test data for materials of similar structure to OECD Guideline 414 421 422.

Cobalt bis(2-ethylhexanoate).
NOAEL (rat; F1) = 100 mg/kg bw/day.

Zirconium 2-ethylhexanoate
NOAEL (rat; F1) = 100 mg/kg/bw/day.

Calcium 2-ethylhexanoate
NOAEL (rat; F1) = 100 mg/kg bw/day.

Adverse effects on sexual function and fertility

Information not available

Harmful effects on offspring development

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
The results of the studies on the substance related to developmental toxicity, dictated by the OECD guidelines and those of the screening studies in the same area did not show any toxicity in rats.

Effects on or through breastfeeding

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"

Lactation: Expected to be harmless to breastfed infants.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE

May cause drowsiness or dizziness

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"
Single Exposure: May cause drowsiness and dizziness. This substance does not meet the EU criteria for classification.

Target organs

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”

Central nervous system

Route of exposure

Information not available

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
Repeated Exposure: Not expected to cause organ damage following prolonged or repeated exposure. Based on test data for materials of similar structure to OECD Guideline 408 413 422. No known effects based on information available.

Target organs

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
Central nervous system.

Route of exposure

Information not available

DANGER IN CASE OF ASPIRATION

Toxic by aspiration

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
The fluid can enter the lungs and cause damage (chemical pneumonia, potentially fatal).

11.2. Information about 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 effects on human health under evaluation.

SECTION 12. Ecological information

The product is to be considered as dangerous for the environment and is harmful to aquatic organisms with long-term negative effects for the aquatic environment.
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"

Use according to good working practices, avoiding dispersal of the product in the environment. Notify the competent authorities if the product has reached watercourses or sewers or if it has contaminated the soil or vegetation. Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5) : Based on the ecological information below and on the basis of the criteria indicated by the regulations on dangerous substances, this substance is not classified dangerous for the environment.

12.1. Toxicity

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5):
below is a summary of the most representative studies of the registration dossier. Aquatic toxicity:
Endpoint: Invertebrates - Short term (Daphnia magna)
Result: EL50 (48 h): >1000 mg/L (mobility); EL50 (24h): >1000 mg/L (mobility)
Comments: Key study (C9-C11, <2% aromatics) - OECD Guideline 202 - SRC (1995)
Endpoint: Invertebrates - Short term (Chaetogammarus marinus)
Result: LL50 (48 h): > 1000 mg/L (mortality); LL50 (24 h): >1000 mg/L (mortality)
Comments: Key study (C9-C11 <2 % aromatics) OECD Guideline 202 - TNO (1992)
Endpoint: Invertebrates - Long Term (Daphnia magna)
Result: NOELR (21 days): 0.23 mg/L (reproduction)
Comments: Supporting study (C9-C11 <2 % aromatics) (Q)SAR Modeled data - CONCAWE (2010)
Endpoint: Algae (Pseudokirchnerella subcapitata) Growth inhibition
Result: EC50 (72 h): > 1000 mg/L (Growth); EC50 (72 h): > 1000 mg/L (biomass); NOELR (72 h): 3 mg/L (Number of cells); NOELR (72 h): 100 mg/L (Growth)
Comments: Key study (C9-C11 <2 % aromatics) OECD Guideline 201 - SRC (1995)
Endpoint: Fish - Short term (Oncorhynchus mykiss)
Result: LL50 (24h):>1000mg/L; LL0 (24h):1000mg/L; LL50 (48h): >1000mg/L; LL0 (48h):1000mg/L; LL50 (72): >1000 mg/L; LL0 (72 h) mg/L: Comments: Key study (C9-C11 <2 % aromatics) OECD Guideline 203 - SRC (1995).

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics"

LC50 - Fish	> 1000mg/l/96h
EC50 - Crustaceans	> 1000mg/l/48h
EC50 - Algae / Aquatic Plants	> 1000mg/l/72h

Hydrocarbons, C9, aromatics

LC50 - Fish	> 1mg/l/96h
EC50 - Crustaceans	> 10mg/l/48h
EC50 - Algae / Aquatic Plants	> 100mg/l/72h

Cobalt bis(2-ethylhexanoate).

LC50 - Fish	8.9 mg/l/96h Onch. mykiss
EC50 - Crustaceans	3.6 mg/l/48h Daphnia magna
EC50 - Algae / Aquatic Plants	0,85 mg/l/72h Pseudokirhneriella
Chronic NOEC Pisces	2.07 mg/l Pimephales promelas
Chronic NOEC Crustaceans	0.032 mg/l Crustaceans 28 days

Calcium 2-ethylhexanoate

LC50 - Fish	180mg/l/96h

EC50 - Crustaceans	85.4mg/l/48h
EC50 - Algae / Aquatic Plants	49.3mg/l/72h

Zirconium 2-ethylhexanoate

LC50 - Fish	> 100mg/l/96h
EC50 - Crustaceans	85.4mg/l/48h
EC50 - Algae / Aquatic Plants	49.3mg/l/72h

12.2. Persistence and degradability

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5):
Abiotic Degradability: Hydrolysis: This substance is resistant to hydrolysis. Therefore, this process will not contribute to a measurable loss of degradation of the substance in the environment.
Biotic Degradability: Based on available studies and the properties of C9-C16 hydrocarbons, this substance is considered inherently biodegradable.
Method : Non-adapted microorganisms OECD Guideline 301 F
Result : Readily biodegradable 80% (28 days)
Comments : Key study Reliable without restriction (C9-C11, <2% aromatics)
Source : Shell (1997).

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Solubility in water	1000 - 10000 mg/l

Quickly degradable

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics”
Inherently degradable

Hydrocarbons, C9, aromatics

Quickly degradable

Boiled linseed oil

Quickly degradable
(according to OECD criteria)

Cobalt bis(2-ethylhexanoate).

Solubility in water	> 10000 mg/l

Quickly degradable

Calcium 2-ethylhexanoate

Solubility in water	> 10000 mg/l

Quickly degradable

Zirconium 2-ethylhexanoate

Solubility in water	< 0.1 mg/l

Quickly degradable

Blend of C7-C9 alkyl 3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]propionates
Degradability: data not available

Reaction products bis (2,2,6,6-tetramethyl-4-piperidinyl decanededioate with 1,1-dimethyl ethyl hydroperoxide and octane
Degradability: data not available

12.3. Bioaccumulative potential

C9-C11 hydrocarbons, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): The standard tests for this endpoint are not applicable to UVCB substances.

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Partition coefficient: n-octanol/water	0.0043

Boiled linseed oil

Partition coefficient: n-octanol/water	> 6Kow

Cobalt bis(2-ethylhexanoate).

BCF	15600

Zirconium 2-ethylhexanoate

BCF	2.96

12.4. Mobility in soil

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): Koc Absorption: Standard tests for this endpoint do not apply to substances
UVCB.

Boiled linseed oil

Partition coefficient: soil/water	> 4.96 l/kg

12.5. Results of PBT and vPvB assessment

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): Comparison with the criteria of Annex XIII of the REACh Regulation
Evaluation of persistence: some hydrocarbon structures contained in this substance have characteristics of P (Persistent) or vP (very persistent).
Assessment of bioaccumulation potential: the structure of most of the hydrocarbons contained in this substance DO NOT exhibit characteristics of vB (very Bioaccumulative) however some components have characteristics of B (Bioaccumulative).
Toxicity Assessment: Toxicity was assessed for hydrocarbon structures that exhibited P and B characteristics but none
Relevant component meets the toxicity criteria with the exception of anthracene which has been confirmed as a PBT. Since anthracene is not present, the product is not considered PBT/vPvB.
Based on available data, the product does not contain PBT or vPvB substances in a percentage ≥ 0.1%.

12.6. Endocrine disrupting properties

Hydrocarbons C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (EC 919-857-5): Dispersion in the environment may lead to contamination of environmental matrices
(air, soil, subsoil, surface and groundwater). Use according to good working practice, avoiding dispersal of the product in the environment
Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with effects on the environment being evaluated.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse if possible. Product residues are to be considered special hazardous waste. The dangerousness of the waste which partially contains this product must be evaluated on the basis of the legislative provisions in force.
Disposal must be entrusted to an authorized waste management company, in compliance with national and possibly local legislation.
Transportation of waste may be subject to ADR.

CONTAMINATED PACKAGING
Contaminated packaging must be sent for recovery or disposal in compliance with national waste management regulations.

SECTION 14. Transportation 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 MIXTURE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL MIXTURE (including paint thinning and reducing compound)
IMDG:	PAINT or PAINT RELATED MATERIAL MIXTURE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL MIXTURE (including paint thinning and reducing compound)
IATA:	PAINT or PAINT RELATED MATERIAL MIXTURE (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL MIXTURE (including paint thinning and reducing compound)

14.3. Transport hazard classes

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. Dangers to the environment

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

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

14.7. Shipping in bulk in accordance with IMO acts

Irrelevant information

SECTION 15. Regulatory Information

15.1. Safety, health and environmental laws and regulations specific to the substance or mixture

Seveso category - Directive 2012/18/EU: P5c

Restrictions relating to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006

Product

Point	3 - 40

Substances contained

Point	75

Regulation (EU) 2019/1148 - concerning the placing on the market and use of explosives precursors

Not applicable

Substances in Candidate List (Art. 59 REACH)

Based on the data available, the product does not contain SVHC substances in a percentage ≥ 0.1%.

Substances subject to authorization (Annex XIV REACH)

None

Substances subject to export notification obligation Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Sanitary checks

Workers exposed to this chemical agent dangerous to health must be subjected to health surveillance carried out according to the provisions of art. 41 of Legislative Decree 81 of 9 April 2008 unless the risk to the worker's health and safety has been assessed as irrelevant, in accordance with the provisions of art. 224 paragraph 2.

VOC (Directive 2004/42/CE) :

Wood stains that form a film of minimal thickness.

15.2. Chemical safety assessment

A chemical safety assessment has been prepared for the following substances contained in the mixture:
Hydrocarbons, C9-C11, n-alkanes, iso-alkanes, cyclics, < 2% aromatics; Hydrocarbons, C9, aromatics.

SECTION 16. Other information

Text of the danger indications (H) mentioned in sections 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
STOT IF 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H226	Flammable liquid and vapour.

H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H335	May irritate the respiratory tract.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic organisms.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:
- ADR: European agreement for the carriage of dangerous goods by road
- CAS: Chemical Abstract Service Number
- CE: Identification number in ESIS (European Archive of Existing Substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EC50: Concentration that affects 50% of the population tested
- EmS: Emergency Schedule
- GHS: Globally Harmonized System for the classification and labeling of chemicals
- IATA DGR: Regulations for the transport of dangerous goods of the International Air Transport Association
- IC50: Concentration of immobilisation of 50% of the test population
- IMDG: International Maritime Code for the transport of dangerous goods
- IMO: International Maritime Organization
- INDEX: Identification number in Annex VI of the CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Level of occupational exposure
- PBT: Persistent, bioaccumulating and toxic according to REACH
- PEC: Predictable environmental concentration
- PEL: Predictable level of exposure
- PNEC: Predicted No Effect Concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation for the international transport of dangerous goods by train
- STA: Acute Toxicity Estimate
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that must not be exceeded during any moment of occupational exposure.
- TWA: Weighted Average Exposure Limit
- TWA STEL: Short Term Exposure Limit
- VOC: Volatile organic compound
- vPvB: Very persistent and very bioaccumulating according to REACH
- WGK: Aquatic hazard class (Germany).

GENERAL BIBLIOGRAPHY:
1. Regulation (EC) 1907/2006 of the European Parliament (REACH)
2. Regulation (EC) 1272/2008 of the European Parliament (CLP)
3. Regulation (EU) 2020/878 (Annex II REACH Regulation)
4. Regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
5. Regulation (EU) 286/2011 of the European Parliament (II Atp. CLP)
6. Regulation (EU) 618/2012 of the European Parliament (III Atp. CLP)
7. Regulation (EU) 487/2013 of the European Parliament (IV Atp. CLP)
8. Regulation (EU) 944/2013 of the European Parliament (V Atp. CLP)
9. Regulation (EU) 605/2014 of the European Parliament (VI Atp. CLP)
10. Regulation (EU) 2015/1221 of the European Parliament (VII Atp. CLP)
11. Regulation (EU) 2016/918 of the European Parliament (VIII Atp. CLP)
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (EU) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (EU) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (EU) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (EU) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (EU) 2021/849 (XVII Atp. CLP)

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

Note for the user:
The information contained in this sheet is based on the knowledge available to us on the date of the last version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.
This document should not be interpreted as a guarantee of any specific property of the product.
Since the use of the product does not fall under our direct control, it is the user's obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. No responsibility is assumed for improper use.
Provide adequate training to personnel involved in the use of chemical products.
CLASSIFICATION CALCULATION METHODS
Physical and chemical hazards: The classification of the product has been derived from the criteria established by the CLP Regulation Annex I Part 2. The methods of evaluation of the physical and chemical properties are reported in section 9.
Health hazards: The classification of the product is based on the calculation methods in Annex I of CLP Part 3, unless otherwise indicated in section 11.
Environmental hazards: The classification of the product is based on the calculation methods in Annex I of CLP Part 4, unless otherwise indicated in section 12.

Changes from the previous revision
Changes have been made to the following sections:
01 / 02 / 03 / 09 / 11 / 12 / 15 / 16.