Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

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

1.1. Product identifier

Code: **58S**
Product name **EPOGREEN COAT (A)**

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

Intended use **QUICK SETTING TOP SEALER, WATERPROOFING AND ANTI-DIRT**

1.3. Details of the supplier of the safety data sheet

Name **NORD RESINE S.p.A.**
Full address **Via Fornace Vecchia, 79**
District and Country **31058 Susegana (TV)**
Italia
Tel. +39 0438-437511
Fax +39 0438-435155
e-mail address of the competent person responsible for the Safety Data Sheet **annabreda@nordresine.com**

Supplier: **NORD RESINE S.p.A.**

1.4. Emergency telephone number

For urgent inquiries refer to **+39 0438 437511**

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:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
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:

H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

Precautionary statements:

P280	Wear protective gloves / eye protection / face protection.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.

Contains:
bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano
Diethyl fumarate
reaction mass of: carbonato-bis-N-ethyl-2-isopropyl-1,3-oxazolidine
2-[4-(4-Amino-cyclohexylmethyl)-cyclohexylamido]-succinic acid diethyl ester
tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato
DIBUTYLTIN DILAURATE
Diethyl fumarate

VOC (Directive 2004/42/EC) :
Two-pack reactive performance coatings for specific end use such as floors.

VOC given in g/litre of product in a ready-to-use condition :		140,03
Limit value:		500,00
- Catalysed with :	55,56 %	EPOGREEN COAT (B)

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)
tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato			
INDEX	*607-521-00-8*	50 ≤ x < 75	**Skin Sens. 1B H317, Aquatic Chronic 1 H410 M=1**
EC	*429-270-1*		
CAS	*136210-30-5*		
REACH Reg.	*01-0000017556-64*		
bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano			
INDEX	*607-350-00-9*	11 ≤ x < 15	**Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC	*412-060-9*		
CAS	*136210-32-7*		
REACH Reg.	*01-0000015937-58*		
Diethyl fumarate			
INDEX		5 ≤ x < 7	**Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*210-819-7*		**LD50 Oral: 1367 mg/kg**
CAS	*623-91-6*		
2-[4-(4-Amino-cyclohexylmethyl)-cyclohexylamido]-succinic acid diethyl ester			
INDEX		5 ≤ x < 7	**Skin Sens. 1 H317**
EC			
CAS			
N-BUTYL ACETATE			
INDEX	*607-025-00-1*	1 ≤ x < 3	**Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
EC	*204-658-1*		
CAS	*123-86-4*		
REACH Reg.	*01-2119485493-29*		
reaction mass of: carbonato-bis-N-ethyl-2-isopropyl-1,3-oxazolidine			
INDEX	*613-250-00-6*	1 ≤ x < 3	**Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 3 H412**
EC	*429-990-6*		
CAS	*145899-78-1*		
REACH Reg.	*01-0000017627-63*		

SECTION 3. Composition/information on ingredients ... / >>

Diethyl fumarate
INDEX 0,5 ≤ x < 1 **Acute Tox. 4 H302, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-819-7* **LD50 Oral: 1367 mg/kg**
CAS *623-91-6*

DIPROPYLENE GLYCOL MONOMETHYL ETHER
INDEX 0 < x < 0,5 **Substance with a community workplace exposure limit.**
EC *252-104-2*
CAS *34590-94-8*
REACH Reg. *01-2119450011-60*

DIBUTYLTIN DILAURATE
INDEX *050-030-00-3* 0 < x < 0,25 **Muta. 2 H341, Repr. 1B H360FD, STOT SE 1 H370, STOT RE 1 H372, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *201-039-8*
CAS *77-58-7*
REACH Reg. *01-2119496068-27*

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

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more severe symptoms, ask for immediate medical aid.
EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Take off immediately all contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice/attention. Avoid further contact with contaminated clothing.
INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.
INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

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

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

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If skin irritation or rash occurs: Get medical advice / attention.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment: see section 4.1

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. 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:

CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
ESP	España	Límites de exposición profesional para agentes químicos en España 2023

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

FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
RUS	Россия	ПОСТАНОВЛЕНИЕ от 13 февраля 2018 г. N 25 ОБ УТВЕРЖДЕНИИ ГИГИЕНИЧЕСКИХ НОРМАТИВОВ ГН 2.2.5.3532-18 "ПРЕДЕЛЬНО ДОПУСТИМЫЕ КОНЦЕНТРАЦИИ (ПДК) ВРЕДНЫХ ВЕЩЕСТВ В ВОЗДУХЕ РАБОЧЕЙ ЗОНЫ"
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
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 2023

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

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
TLV	CZE	270	43,74	550	89,1	SKIN	
AGW	DEU	310	50	310	50		11
MAK	DEU	310	50	310	50		
VLA	ESP	308	50			SKIN	
VLEP	FRA	308	50			SKIN	
TLV	GRC	600	100	900	150		
AK	HUN	308	50				
GVI/KGVI	HRV	308	50			SKIN	
VLEP	ITA	308	50			SKIN	Allegato XXXVIII D.Lgs 81/08
TGG	NLD	300					
VLE	PRT	308	50			SKIN	
NDS/NDSCh	POL	240		480		SKIN	
TLV	ROU	308	50			SKIN	
MV	SVN	308	50			SKIN	
WEL	GBR	308	50			SKIN	
OEL	EU	308	50			SKIN	
TLV-ACGIH			50				

Predicted no-effect concentration - PNEC

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

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,67 mg/kg/d				
Inhalation				37,2 mg/m3				310 mg/m3
Skin				15 mg/kg/d				65 mg/kg/d

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

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	241		723		
AGW	DEU	300	62	600	124	
MAK	DEU	480	100	960	200	
VLA	ESP	241	50	723	150	
VLEP	FRA	241	50	723	150	
TLV	GRC	710	150	950	200	
AK	HUN	241	50	723	150	
GVI/KGVI	HRV	241	50	723	150	
VLEP	ITA	241	50	723	150	Allegato XXXVIII D.Lgs. 81/08
TGG	NLD	150				
VLE	PRT	241	50	723	150	
NDS/NDSCh	POL	240		720		
TLV	ROU	241	50	723	150	
ПДК	RUS			0,1		п
MV	SVN	300	62	600	124	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,18	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg/d
Normal value for marine water sediment	0,0981	mg/kg/d
Normal value for water, intermittent release	0,36	mg/l
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,0903	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		2 mg/kg/d		2 mg/kg/d				
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin		6 mg/kg/d		6 mg/kg/d		11 mg/kg bw/d		11 mg/kg bw/d

DIBUTYLTIN DILAURATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00046	mg/l
Normal value in marine water	3 0,00004	mg/l
Normal value for fresh water sediment	63 0,05	mg/kg/d
Normal value for marine water sediment	0,005	mg/kg/d
Normal value for marine water, intermittent release	0,00463	mg/l
Normal value for fresh water, intermittent release	0,00463	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	0,2	mg/kg
Normal value for the terrestrial compartment	0,0407	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		0,02 mg/kg bw/d		0,0031 mg/kg bw/d				
Inhalation	NPI	0,04 mg/m3	NPI	0,0046 mg/m3	NPI	0,059 mg/m3	NPI	0,02 mg/m3
Skin	NPI	0,5 mg/kg bw/d	NPI	0,16 mg/kg bw/d	NPI	2,08 mg/kg bw/d	NPI	0,43 mg/kg bw/d

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

tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato

Predicted no-effect concentration - PNEC

Normal value in fresh water	130	ng/L
Normal value for fresh water sediment	210	µg/kg
Normal value for marine water sediment	20	µg/kg
Normal value for marine water, intermittent release	13	ng/L
Normal value of STP microorganisms	31,1	mg/l
Normal value for the terrestrial compartment	100	µg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,4 mg/kg		1,4 mg/kg				
Inhalation		4,8 mg/m³	NPI	4,8 mg/m³	NPI	112,0 mg/m³	NPI	28,0 mg/m³
Skin		1,4 mg/kg	MED	1,4 mg/kg	MED		MED	4,0 mg/kg

bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano

Predicted no-effect concentration - PNEC

Normal value in fresh water	130	ng/L
Normal value for fresh water sediment	210	µg/kg
Normal value for marine water sediment	20	µg/kg
Normal value for marine water, intermittent release	13	ng/L
Normal value of STP microorganisms	31,1	mg/l
Normal value for the terrestrial compartment	100	µg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		4,2 mg/kg		4,2 mg/kg				
Inhalation		14,5 mg/m³	NPI	14,5 mg/m³	NPI	672,0 mg/m³	NPI	84,0 mg/m³
Skin		4,2 mg/kg	MED	4,2 mg/kg	MED		MED	11,9 mg/kg

reaction mass of: carbonato-bis-N-ethyl-2-isopropyl-1,3-oxazolidine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0857	mg/l
Normal value in marine water	0,00857	mg/l
Normal value for fresh water sediment	1,08	mg/kg/d
Normal value for marine water sediment	0,108	mg/kg/d
Normal value for water, intermittent release	0,857	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,205	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,25 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	0,43 mg/m3	NPI	NPI	NPI	2,5 mg/m3
Skin	HIGH	NPI	HIGH	0,25 mg/kg bw/d	HIGH	NPI	HIGH	0,7 mg/kg bw/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

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

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.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
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.
Protect your hands with gloves of the following type:
Material: PE/EVAL/PE multilayer
In the case of mixtures, work glove resistance to chemical agents must be verified before use, as it is not predictable. Gloves have a wear time that depends on use type and duration.
Thickness: 0,06 mm
Glove thickness must be selected based on the minimum required breakthrough time.
Breakthrough time: 480 min
Glove resistance depends on various elements, such as temperature and other environmental factors.
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.
EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).
RESPIRATORY PROTECTION
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. Use a mask with a type AX filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
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		liquid	
Colour		LIGHT YELLOW	
Odour		characteristic	
Odour threshold		not determined	
Melting point / freezing point		not determined	Reason for missing data:not determined
Initial boiling point	>	35 °C	Reason for missing data:not determined
Flammability		not available	Reason for missing data:not determined
Lower explosive limit		not determined	Reason for missing data:not determined
Upper explosive limit		not determined	Reason for missing data:not determined
Flash point	>	90 °C	
Auto-ignition temperature		not determined	Reason for missing data:not determined
Decomposition temperature		not determined	Reason for missing data:not determined
pH		not applicable	
Kinematic viscosity		not determined	Reason for missing data:not determined
Solubility		insoluble in water	
Partition coefficient: n-octanol/water		not applicable	
Vapour pressure		not determined	Reason for missing data:not determined
Density and/or relative density		1,06 kg/l	Method:EN ISO 1675 Temperature: 23 °C
Relative vapour density		not determined	Reason for missing data:not determined
Particle characteristics		not applicable	

SECTION 9. Physical and chemical properties ... / >>

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) : 20,13 % - 213,34 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.

DIPROPYLENE GLYCOL MONOMETHYL ETHER
Forms peroxides with: air.
N-BUTYL ACETATE
Decomposes on contact with: water.

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.

DIPROPYLENE GLYCOL MONOMETHYL ETHER
May react violently with: strong oxidising agents.
N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

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

DIPROPYLENE GLYCOL MONOMETHYL ETHER
Avoid exposure to: sources of heat.Possibility of explosion.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

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.

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

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

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

SECTION 11. Toxicological information ... / >>

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

Interactive effects

N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

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

N-BUTYL ACETATE

LD50 (Dermal):	> 14112 mg/kg Rabbit
LD50 (Oral):	10760 mg/kg Rat
LC50 (Inhalation vapours):	21,1 mg/l/4h Rat

DIBUTYLTIN DILAURATE

LD50 (Dermal):	> 2000 mg/kg Rabbit
LD50 (Oral):	2071 mg/kg Rat

tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato

LD50 (Dermal):	2000 mg/kg (rat)
LD50 (Oral):	2000 mg/kg (rat)
LC50 (Inhalation vapours):	4,224 mg/L/4/h (rat)

bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano

LD50 (Dermal):	2000 mg/kg (rat)
LD50 (Oral):	2000 mg/kg (rat)
LC50 (Inhalation vapours):	4,224 mg/L/4/h (rat)

Diethyl fumarate

LD50 (Oral):	1367 mg/kg Rat

Diethyl fumarate

LD50 (Oral):	1367 mg/kg Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

N-BUTYL ACETATE
Species: rabbit
Result: non-irritating
Method: OECD 404

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

N-BUTYL ACETATE
Species: rabbit
Result: non-irritating
Method: OECD 405

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

N-BUTYL ACETATE

SECTION 11. Toxicological information ... / >>

Species: guinea pig
Result: non-sensitizing
Method: OECD 406

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 has negative effects on the aquatic environment.

12.1. Toxicity

N-BUTYL ACETATE

LC50 - for Fish	18 mg/l/96h Pimephales promelas
EC50 - for Crustacea	44 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	23 mg/l Daphnia magna

DIBUTYLTIN DILAURATE

LC50 - for Fish	21,2 mg/l/96h Danio rerio
EC50 - for Crustacea	3,4 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1 mg/l/72h

tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato

LC50 - for Fish	66 mg/l/96h
EC50 - for Crustacea	88,6 mg/l/48h
EC50 - for Algae / Aquatic Plants	113 mg/l/72h Scenedesmus Subspicatus
Chronic NOEC for Crustacea	> 13 µg/L

bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano

LC50 - for Fish	66 mg/l/96h
EC50 - for Crustacea	88,6 mg/l/48h
EC50 - for Algae / Aquatic Plants	113 mg/l/72h Scenedesmus Subspicatus
Chronic NOEC for Crustacea	> 13 µg/L

Diethyl fumarate

LC50 - for Fish	66 mg/l/96h Danio Rerio
EC50 - for Crustacea	88,6 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1,1 mg/l/72h Pseudokirchneriella subcapitata

SECTION 12. Ecological information ... / >>

Diethyl fumarate

LC50 - for Fish	66 mg/l/96h Danio Rerio
EC50 - for Crustacea	88,6 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1,1 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

N-BUTYL ACETATE

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	>90% (28 d)

DIBUTYLTIN DILAURATE

Solubility in water	1,43 mg/l
NOT rapidly degradable	

tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato

Solubility in water	100 g/l

bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano

Solubility in water	5 g/l

reaction mass of: carbonato-bis-N-ethyl-2-isopropyl-1,3-oxazolidine
Entirely degradable

12.3. Bioaccumulative potential

DIPROPYLENE GLYCOL MONOMETHYL ETHER

Partition coefficient: n-octanol/water	0,0043

N-BUTYL ACETATE

Partition coefficient: n-octanol/water	2,3 25°C - OECD 117
BCF	15,3

DIBUTYLTIN DILAURATE

Partition coefficient: n-octanol/water	4,44
BCF	2,91

tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato

Partition coefficient: n-octanol/water	5,16

bis(4-(1,2-bis(etossicarbonil)-etilammino)-3-metil-cicloesil)-metano

Partition coefficient: n-octanol/water	5,99

reaction mass of: carbonato-bis-N-ethyl-2-isopropyl-1,3-oxazolidine

Partition coefficient: n-octanol/water	1,8

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.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
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: UN 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato; Diethyl fumarate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato; Diethyl fumarate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (tetraetil n, n'-(metilendicicloesano-4,1-diil)bis-dl-aspartato; Diethyl fumarate)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 lt	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 lt	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

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: 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 reactive performance coatings for specific end use such as floors.

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

N-BUTYL ACETATE

SECTION 16. Other information

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

Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Repr. 1B	Reproductive toxicity, category 1B
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
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
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory 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.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- 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

SECTION 16. Other information ... / >>

- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- 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
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15. Regulation (EU) 2019/521 (XII Atp. CLP)
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17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
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21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
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- 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 / 09.