

## Safety Data Sheet

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

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

#### 1.1. Product identifier

Code: **220**  
Product name: **EASY-LAST COAT TRASPARENTE (A)**  
UFI: **RRF1-30K3-300Q-NUJF**

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

Intended use: **Bi-component transparent top coat**

#### 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:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1A	H317	May cause an allergic skin reaction.
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 labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: **Danger**

### SECTION 2. Hazards identification ... / >>

#### Hazard statements:

<b>H225</b>	Highly flammable liquid and vapour.
<b>H319</b>	Causes serious eye irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	Repeated exposure may cause skin dryness or cracking.

#### Precautionary statements:

<b>P210</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>P280</b>	Wear protective gloves/ protective clothing / eye protection / face protection.
<b>P370+P378</b>	In case of fire: use carbon anhydride, foam, nebulized water to extinguish.
<b>P261</b>	Avoid breathing dust / fume / gas / mist / vapours / spray.
<b>P233</b>	Keep container tightly closed.
<b>P312</b>	Call a POISON CENTRE / doctor if you feel unwell.

#### Contains:

Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate  
N-BUTYL ACETATE  
ETHYL ACETATE  
2-METHOXY-1-METHYLETHYL ACETATE  
1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate

#### 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 :

Limit value:

- Catalysed with :

50,00 %

400,69

500,00

EASY-LAST COAT TRASPARENTE (B)

### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

#### Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)	
<b>N-BUTYL ACETATE</b>			
INDEX	607-025-00-1	20 ≤ x < 25	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC	204-658-1		
CAS	123-86-4		
REACH Reg.	01-2119485493-29		
<b>ETHYL ACETATE</b>			
INDEX	607-022-00-5	11 ≤ x < 15	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC	205-500-4		
CAS	141-78-6		
REACH Reg.	01-2119475103-46		
<b>Reaction mass of ethylbenzene and m-xylene and p-xylene</b>			
INDEX		7 ≤ x < 10	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l
EC	905-562-9		
CAS			
REACH Reg.	01-2119555267-33		
<b>2-METHOXY-1-METHYLETHYL ACETATE</b>			
INDEX	607-195-00-7	1 ≤ x < 3	Flam. Liq. 3 H226, STOT SE 3 H336
EC	203-603-9		
CAS	108-65-6		
REACH Reg.	01-2119475791-29		

**SECTION 3. Composition/information on ingredients** ... / >>**1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate**  
**INDEX** 616-079-00-5 0,5 ≤ x < 1 **Skin Sens. 1 H317****EC** 411-700-4  
**CAS** 140921-24-0  
**REACH Reg.** 01-0000015906-63**Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate**  
**INDEX** 0,5 ≤ x < 1 **Repr. 2 H361f, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1****EC** 915-687-0  
**CAS** 1065336-91-5  
**REACH Reg.** 01-2119491304-40**Propylidynetrimethanol**  
**INDEX** 0 ≤ x < 0,5 **Repr. 2 H361fd****EC** 201-074-9  
**CAS** 77-99-6  
**REACH Reg.** 01-2119486799-10

The full wording of hazard (H) phrases is given in section 16 of the sheet.

**SECTION 4. First aid measures****4.1. Description of first aid measures****EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.**4.2. Most important symptoms and effects, both acute and delayed**

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

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

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

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

## SECTION 6. Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

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

### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

### 6.4. Reference to other sections

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

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

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

### 7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

2-METHOXY-1-METHYLETHYL ACETATE

Store in an inert atmosphere, sheltered from moisture because it hydrolyses easily.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory references:

CZE	Česká Republika	Nariadení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
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

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

HUN	Magyarország	την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία» 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 opasnim kemikalijama 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
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 2022

#### N-BUTYL ACETATE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	950	196,65	1200	248,4	
AGW	DEU	300	62	600 (C)	124 (C)	
VLA	ESP	241	50	724	150	
VLEP	FRA	710	150	940	200	
TLV	GRC	710	150	950	200	
AK	HUN	241		723		
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	
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

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

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

#### ETHYL ACETATE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	700	191,1	900	245,7	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
VLA	ESP	734	200	1468	400	
VLEP	FRA	734	200	1468	400	
TLV	GRC	734	200	1468	400	
AK	HUN	734		1468		
GVI/KGVI	HRV	734	200	1468	400	
VLEP	ITA	734	200	1468	400	Allegato XXXVIII D.Lgs. 81/08
TGG	NLD	734		1468		
VLE	PRT	734	200	1468	400	
NDS/NDSch	POL	734		1468		
TLV	ROU	734	200	1468	400	
MV	SVN	734	200	1468	400	
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,26	mg/l
Normal value in marine water	0,026	mg/l
Normal value for fresh water sediment	1,25	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for water, intermittent release	1,65	mg/l
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	200	mg/kg
Normal value for the terrestrial compartment	0,24	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral		NPI		4,5 mg/kg bw/d				
Inhalation	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin	NPI	NPI	LOW	37 mg/kg bw/d	LOW	NPI	NPI	63 mg/kg bw/d

#### Reaction mass of ethylbenzene and m-xylene and p-xylene

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	221	50	442	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,25	mg/l
Normal value in marine water	0,25	mg/l
Normal value for marine water sediment	14,33	mg/kg
Normal value for the terrestrial compartment	2,41	mg/kg

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

#### 2-METHOXY-1-METHYLETHYL ACETATE

##### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270	49,14	550	100,1	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
TLV	GRC	275	50	550	100	
AK	HUN	275		550		
GVI/KGVI	HRV	275	50	550	100	SKIN
VLEP	ITA	275	50	550	100	SKIN Allegato XXXVIII D.Lgs. 81/08
TGG	NLD	550				
VLE	PRT	275	50	550	100	SKIN
NDS/NDSch	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
MV	SVN	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,0635	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,67 mg/kg/d				
Inhalation				33 mg/m3				275 mg/m3
Skin				54,8 mg/kg/d				153,5 mg/kg/d

#### 1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,043	mg/l
Normal value in marine water	0,0043	mg/l
Normal value for fresh water sediment	164,5	mg/kg/d
Normal value for marine water sediment	16,5	mg/kg/d
Normal value for water, intermittent release	0,43	mg/l
Normal value of STP microorganisms	35	mg/l
Normal value for the terrestrial compartment	32,9	mg/kg/d

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic local	Chronic systemic	Effects on workers			
	Acute local	Acute systemic			Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,33 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	0,58 mg/m3	NPI	NPI	NPI	3,3 mg/m3
Skin	MED	NPI	MED	3,3 mg/kg bw/d	MED	NPI	MED	9,3 mg/kg bw/d



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

#### Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0022	mg/l
Normal value in marine water	0,00022	mg/l
Normal value for fresh water sediment	1,05	mg/kg
Normal value for marine water sediment	0,11	mg/kg
Normal value for water, intermittent release	0,009	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	0,21	mg/kg

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	1,25 mg/kg	VND	1,25 mg/kg				
Inhalation	VND	0,58 mg/m3	VND	0,58 mg/m3	VND	2,35 mg/m3	VND	2,35 mg/m3
Skin	VND	1,25 mg/kg	VND	1,25 mg/kg	VND	2,5 mg/kg	VND	2,5 mg/kg

#### Propylidynetrimethanol

##### Predicted no-effect concentration - PNEC

Normal value in fresh water	NPI
Normal value in marine water	NPI
Normal value for fresh water sediment	NPI
Normal value for marine water sediment	NPI
Normal value for water, intermittent release	NPI
Normal value of STP microorganisms	NPI
Normal value for the terrestrial compartment	NPI
Normal value for the atmosphere	NPI

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		NPI		0,34 mg/kg bw/d				
Inhalation	NPI	NPI	NPI	0,58 mg/m3	NPI	NPI	NPI	3,3 mg/m3
Skin	NPI	NPI	NPI	0,34 mg/kg bw/d	NPI	NPI	NPI	0,94 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.

### 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 your hands with category III work gloves.

For the final choice of the material of work gloves (ref. standard EN 374) the following must be considered: compatibility, degradation, breakage and permeation time.

In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is unpredictable. The gloves have a wear time that depends on the duration and method of use.

Materials suitable for protective gloves; EN ISO 374:

Butyl rubber - IIR: thickness >= 0.5mm; breakthrough time >= 480min.

Viton/butyl rubber: thickness >= 0.7mm; breakthrough time >= 480min.

#### SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

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



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

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

### SECTION 9. Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	colourless	
Odour	characteristic of solvent	
Melting point / freezing point	not determined	Reason for missing data: not determined
Initial boiling point	> 35 °C	
Flammability	flammable liquid	
Lower explosive limit	1,2 % (v/v)	Substance: N-BUTYL ACETATE
Upper explosive limit	7,5 % (v/v)	Substance: N-BUTYL ACETATE
Flash point	20 °C	
Auto-ignition temperature	not determined	Reason for missing data: not determined
Decomposition temperature	not determined	Reason for missing data: not determined
pH	not available	
Kinematic viscosity	not determined	Reason for missing data: not determined
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not applicable	
Vapour pressure	not available	Reason for missing data: not determined
Density and/or relative density	0,991 kg/l	Method: EN ISO 1675
Relative vapour density	not determined	Reason for missing data: not determined
Particle characteristics	not applicable	

#### 9.2. Other information

##### 9.2.1. Information with regard to physical hazard classes

Information not available

##### 9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	47,21 % - 467,84	g/litre
VOC (volatile carbon)	30,13 % - 298,54	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.

##### N-BUTYL ACETATE

Decomposes on contact with: water.

##### ETHYL ACETATE

Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

##### 2-METHOXY-1-METHYLETHYL ACETATE

**SECTION 10. Stability and reactivity** ... / >>

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

**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.

**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.

**ETHYL ACETATE**

Risk of explosion on contact with: alkaline metals, hydrides, oleum. May react violently with: fluorine, strong oxidising agents, chlorosulphuric acid, potassium tert-butoxide. Forms explosive mixtures with: air.

**2-METHOXY-1-METHYLETHYL ACETATE**

May react violently with: oxidising substances, strong acids, alkaline metals.

**10.4. Conditions to avoid**

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

**N-BUTYL ACETATE**

Avoid exposure to: moisture, sources of heat, naked flames.

**ETHYL ACETATE**

Avoid exposure to: light, sources of heat, naked flames.

**10.5. Incompatible materials****N-BUTYL ACETATE**

Incompatible with: water, nitrates, strong oxidants, acids, alkalis, zinc.

**ETHYL ACETATE**

Incompatible with: acids, bases, strong oxidants, chlorosulphuric acid.

**2-METHOXY-1-METHYLETHYL ACETATE**

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

**10.6. Hazardous decomposition products**

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

**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**2-METHOXY-1-METHYLETHYL ACETATE**

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure**N-BUTYL ACETATE**

WORKERS: inhalation; contact with the skin.

**2-METHOXY-1-METHYLETHYL ACETATE**

WORKERS: inhalation; contact with the skin.

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

### SECTION 11. Toxicological information ... / >>

#### 2-METHOXY-1-METHYLETHYL ACETATE

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

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

#### N-BUTYL ACETATE

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

#### ETHYL ACETATE

LD50 (Dermal):	> 20000 mg/kg Rabbit
LD50 (Oral):	4934 mg/kg Rabbit
LC50 (Inhalation vapours):	> 29,3 mg/l/4h Rat

#### Reaction mass of ethylbenzene and m-xylene and p-xylene

LD50 (Dermal):	12126 mg/kg Rabbit
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/l Rat
LC50 (Inhalation vapours):	27,124 mg/l/4h Rat
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

#### 2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	5155 mg/kg Rat

#### 1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate

LD50 (Dermal):	> 2000 mg/kg Rat
LD50 (Oral):	> 2000 mg/kg Rat
LC50 (Inhalation vapours):	> 20 mg/l/4h Rat

#### Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

LD50 (Oral):	3230 mg/kg Rat
--------------	----------------

#### Propylidynetrimethanol

LD50 (Dermal):	> 10000 mg/kg Rabbit
LD50 (Oral):	14700 mg/kg Rat
LC50 (Inhalation mists/powders):	> 0,85 mg/l/4h Rat

#### SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

#### N-BUTYL ACETATE

Species: rabbit  
Result: non-irritating  
Method: OECD 404

**SECTION 11. Toxicological information ... / >>****2-METHOXY-1-METHYLETHYL ACETATE**

Species: rabbit

Result: non-irritating

Method: OECD 404

**Propylidynetrimethanol**

Species: Rabbit

Result: slightly irritating

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye irritation

**N-BUTYL ACETATE**

Species: rabbit

Result: non-irritating

Method: OECD 405

**2-METHOXY-1-METHYLETHYL ACETATE**

Species: rabbit

Result: non-irritating

Method: OECD 405

**Propylidynetrimethanol**

Species: Rabbit

Result: slightly irritating

**RESPIRATORY OR SKIN SENSITISATION**

Sensitising for the skin

**N-BUTYL ACETATE**

Species: guinea pig

Result: non-sensitizing

Method: OECD 406

**2-METHOXY-1-METHYLETHYL ACETATE**

Species: guinea pig

Result: non-sensitizing

Method: OECD 406

**Skin sensitization****Propylidynetrimethanol**

Species: Mouse

Method: OECD TG 429

Result: negative

Classification: Does not cause skin sensitization.

**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

**Adverse effects on sexual function and fertility****Propylidynetrimethanol**

Species: Rat, male/female

Method: OECD Test Guideline 443

Test type: One-generation study

Application method: Oral

Dosage levels: 0 - 74 - 225 - 750 mg/kg

**SECTION 11. Toxicological information** ... / >>

NOAEL (parents, general toxicity): 74 mg/kg body weight/day  
NOAEL (parents, fertility): 225 mg/kg body weight/day  
NOAEL (descendants): < 74 mg/kg body weight/day

Adverse effects on development of the offspring

Propylidynetrimethanol  
NOAEL (maternal): 74 mg/kg  
NOAEL (developmental toxicity): 225 mg/kg body weight/day  
LOAEL (teratogenicity): 74 mg/kg  
Species: Rat, male and female  
Application method: Oral  
Dosage levels: 0 - 74 - 225 - 750 mg/kg body weight/day  
NOAEL (teratogenicity): 100 mg/kg  
NOAEL (maternal): 100 mg/kg  
NOAEL (developmental toxicity): 100 mg/kg body weight/day  
Species: Rat, female  
Application method: Oral  
Dosage levels: 0 - 100 - 300 - 1000 mg/kg body weight/day  
Method: OECD TG 414

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

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 the aquatic organisms. In the long term, it have negative effects on aquatic environment.

**12.1. Toxicity****2-METHOXY-1-METHYLETHYL ACETATE**

LC50 - for Fish	> 100 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 500 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	> 100 mg/l Daphnia magna

**ETHYL ACETATE**

LC50 - for Fish	230 mg/l/96h Pimephales promelas
EC50 - for Crustacea	154 mg/l/48h

**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

**1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate**

EC50 - for Crustacea	193 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	43 mg/l/72h

**Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate**

LC50 - for Fish	0,97 mg/l/96h Lepomis macrochirus
EC50 - for Algae / Aquatic Plants	1,68 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

### SECTION 12. Ecological information ... / >>

Reaction mass of ethylbenzene and m-xylene and p-xylene  
LC50 - for Fish 2,6 mg/l/96h p-xilene

Propylidynetrimethanol  
LC50 - for Fish 1000 mg/l/96h  
EC50 - for Crustacea 13000 mg/l/48h Daphnia magna  
Chronic NOEC for Crustacea > 1000 mg/l Daphnia magna

#### 12.2. Persistence and degradability

2-METHOXY-1-METHYLETHYL ACETATE  
Solubility in water > 10000 mg/l  
Rapidly degradable 83% (28 d, OECD 301 F)

ETHYL ACETATE  
Solubility in water > 10000 mg/l  
Rapidly degradable

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

1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate  
Solubility in water 1,679 mg/l  
Entirely degradable

Reaction mass of ethylbenzene and m-xylene and p-xylene  
Rapidly degradable

#### 12.3. Bioaccumulative potential

2-METHOXY-1-METHYLETHYL ACETATE  
Partition coefficient: n-octanol/water 1,2 Log Kow 20°C - OECD 117

ETHYL ACETATE  
Partition coefficient: n-octanol/water 0,68  
BCF 30

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

1,6-hexanediyl-bis (2- (2- (1-ethylpentyl) -3-oxazolidinyl) ethyl) carbamate  
Partition coefficient: n-octanol/water 6,853

Reaction mass of ethylbenzene and m-xylene and p-xylene  
BCF 25,9

Propylidynetrimethanol  
Partition coefficient: n-octanol/water -0,47  
BCF < 17 Cyprinus carpio

#### 12.4. Mobility in soil

N-BUTYL ACETATE  
Partition coefficient: soil/water < 3

#### 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  $\geq$  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.

**SECTION 12. Ecological information** ... / >>**12.7. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information****14.1. UN number or ID number**

ADR / RID, IMDG, IATA: 1866

**14.2. UN proper shipping name**

ADR / RID: RESIN SOLUTION

IMDG: RESIN SOLUTION

IATA: RESIN SOLUTION

**14.3. Transport hazard class(es)**

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

**14.4. Packing group**

ADR / RID, IMDG, IATA: II

**14.5. Environmental hazards**

ADR / RID: NO

IMDG: NO

IATA: NO

**14.6. Special precautions for user**ADR / RID: HIN - Kemler: 33  
Special provision: 640C

Limited Quantities: 5 L

Tunnel restriction code: (D/E)

IMDG: EMS: F-E, S-E

Limited Quantities: 5 L

IATA: Cargo:

Maximum quantity: 60 L

Passengers:

Maximum quantity: 5 L

Special provision:

A3

Packaging instructions: 364

Packaging instructions: 353

**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant



## SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: P5c

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  $\geq$  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

ETHYL ACETATE

Reaction mass of ethylbenzene and m-xylene and p-xylene

2-METHOXY-1-METHYLETHYL ACETATE

Reaction mass of Bis (1,2,2,6,6 - pentamethyl - 4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

## SECTION 16. Other information

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

<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Repr. 2</b>	Reproductive toxicity, category 2
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>STOT RE 2</b>	Specific target organ toxicity - repeated exposure, category 2
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Skin Sens. 1</b>	Skin sensitization, category 1
<b>Skin Sens. 1A</b>	Skin sensitization, category 1A
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H225</b>	Highly flammable liquid and vapour.
<b>H226</b>	Flammable liquid and vapour.
<b>H361f</b>	Suspected of damaging fertility.
<b>H361fd</b>	Suspected of damaging fertility. Suspected of damaging the unborn child.

**SECTION 16. Other information ... / >>**

<b>H312</b>	Harmful in contact with skin.
<b>H332</b>	Harmful if inhaled.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H373</b>	May cause damage to organs through prolonged or repeated exposure.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H317</b>	May cause an allergic skin reaction.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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 (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

**SECTION 16. Other information** ... / >>**22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)**

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

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 11 / 12 / 15.