

Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018
Revision n° 2
Rev. Date 12/08/2022
Page
1 of 17

1.1. Product identifier			
Code:	F 168		
Product name	Marseille LAUNDRY DE	TERGENT	
UFI :	4973-30MW-X00H-9G37		
<b>1.2. Relevant identified uses of the substance</b> Identified Uses	or mixture and uses advised Industrial	against Professional	Consumer
Laundry detergent	-	V	v v
Uses Advised Against			
Do not use for uses other than those indicated			
	h 4		
1.3. Details of the supplier of the safety data s Name	NEW FADOR S.r.I.		
Full address	via Mario Calderara, 31		
District and Country	25018 Montichiari (BS) Italia		
	Tel. +39 030961 243		
	www.newfador.it		
e-mail address of the competent person			
responsible for the Safety Data Sheet	info@newfador.it		
1.4. Emergency telephone number			
For urgent inquiries refer to	NEW FADOR S.r.I.		
	+39 030961 243		
	(08.30 - 17.30)		
SECTION 2. Hazards identification	n		
1. Classification of the substance or mixture			
1. Classification of the substance of mixture			
ne product is classified as hazardous pursuant	to the provisions set forth in (	(EC) Regulation 1272/2008	(CLP) (and subsequent amendment
upplements). The product thus requires a safety d	atasheet that complies with the	provisions of (EU) Regulation	n 2020/878.
ny additional information concerning the risks for I	health and/or the environment a	are given in sections 11 and	12 of this sheet.
azard classification and indication:			
Eye irritation, category 2	H319	Causes serious eye i	rritation.
Classified according to ICE-PH-15/0339 report			
2. Label elements			
azard labelling pursuant to EC Regulation 1272/2	008 (CLP) and subsequent am	endments and supplements.	
Hazard pictograms:			



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page 2 of 17

Signal words: Warning Hazard statements: H319 Causes serious eye irritation. Precautionary statements: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P280 Wear eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice / attention. Ingredients according to Regulation (EC) No. 648/2004 Less than 5% non-ionic surfactants, soap 5% or over but less than anionic surfactants 15% perfumes Preservation agents: 2-BROMO-2-NITROPROPANE-1,3-DIOL, GLUTARAL, BENZISOTHIAZOLINONE 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**

#### 3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
BENZENESULFONIC ACID, C10- 13-ALKYL DERIVS., SODIUM SALTS		
CAS 68411-30-3	6≤x< 7	Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018				
Revision n° 2				
Rev. Date 12/08/2022				
Page				
3 of 17				

EC 270-115-0		LD50 Oral: 1080 mg/kg
INDEX -		
REACH Reg. 01-2119489428-22		
ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED CAS 160901-19-9	4,5≤x< 5	Acute Tox. 4 H302, Eye Dam. 1 H318, Aquatic Chronic 3 H412
EC 931-954-4		Eye Dam. 1 H318: ≥ 10%, Eye Irrit. 2 H319: ≥ 1%
INDEX -		LD50 Oral: >300 mg/kg
REACH Reg. 01-2119490233-42		
ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS CAS 68891-38-3	1≤x< 1,5	
CA3 00091-30-3	1 2 X < 1,5	Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412
EC 500-234-8		Eye Dam. 1 H318: ≥ 10%, Eye Irrit. 2 H319: ≥ 5%
INDEX -		
REACH Reg. 01-2119488639-16		
BRONOPOL		
CAS 52-51-7	0 ≤ x < 0,05	Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Acute 1 H400 M=10, Aquatic Chronic 2 H411
EC 200-143-0		STA Oral: 500 mg/kg, STA Dermal: 1100 mg/kg
INDEX 603-085-00-8		
REACH Reg. 01-2119980938-15		
MORPHOLINE		
CAS 110-91-8	0 ≤ x < 0,05	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eve Dam. 1 H318
EC 203-815-1		LD50 Oral: 1050 mg/kg, STA Dermal: 1100 mg/kg, STA Inhalation vapours:
INDEX 613-028-00-9		11 mg/l
REACH Reg. 01-2119496057-30		

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. 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.



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

4 of 17

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

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

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

Information not available

### **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

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

#### 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 firefighting 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



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

5 of 17

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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

#### 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. 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:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	Nařízení 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
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
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 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
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
GBR EU	United Kingdom OEL EU	EH40/2005 Workplace exposure limits (Fourth Edition 2020) 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 2003/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

6 of 17

Normal value in marine water         0.027         mg/l           Stormal value for frash water sediment         6,1         mg/kg           Varmal value for marine water sediment         6,8         mg/kg           Varmal value for marine water sediment         6,4         mg/kg           Varmal value for marine water sediment         6,4         mg/kg           Varmal value for the terrestinal compartment         3,43         mg/kg           Varmal value for the terrestinal compartment         35         mg/kg           Varmal value for the terrestinal compartment         35         mg/kg           Varmal value for the terrestinal compartment         50         formatic value for the terrestinal compartment         6         6           Varter of exposure         Acute local         Acute local         Acute of exposure         Acute local         Chronic local	Predicted no-effect concentration				0,268		x/I		
Normal value for fresh water sediment         8.1         mgrkg							·		
Normal value for marine water sediment         6.8         mpgkg           Normal value for water, intermittent release         0.017         mgl							·		
Normal value for water, intermittent release         0.017         mg/l           Normal value for SP microorganisms         3.43         mg/l									
Normal value of STP microorganisms         3.43         mg/l           Normal value for the terrestrial compartment         36         mg/kg           Health - Derived no-effect level - DMEL         Effects on oncounters         Effects on worklets         Chronic local         Acute local         Acute systemic oncounters         Acute local         Acute systemic oncounters         Acute local         Acute systemic oncounters         Acute local         Acute systemic oncounters         Acute systemic oncounters <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Normal value for the terrestrial compartment         35         mg/kg           Health - Derived no-effect level - DNEL/ DMEL consumers         Effects on consumers         Effects on workers         Chronic systemic         Acute local         Acute systemic         Acute local         Acute systemic         Acute local         Acute local         Acute systemic         Sin         42.5 mg/kg         BS mg/kg           ALCOHOLS, C12:14, ETHOXYLATED, SULFATES, SODIUM SALTS          42.5 mg/kg         BS mg/kg         BS mg/kg           Normal value in firsh water         0.24         mg/l          Sin					,				
Effects on workers           Effects on workers           Route or exposure         Acute total         Acute systemic         Acute total         Chronic local	-								
Effects on consumers         Effects on consumers         Effects on consumers         Chronic local systemic         Chronic consumers         Chronic local systemic		•			35	mg	g/kg		
systemic	Health - Derived no-effect le	Effects on	DMEL						
Oral         0.425 mg/kg bw/d         -	Route of exposure		Acute systemic	Chronic local				Chronic local	
Skin     42.5 mg/kg bw/d     85 mg/kg bw/d     85 mg/kg bw/d       ALCOPUS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS     9       Predicted no-effect concentration - PNEC     0,24     mg/l       Normal value in fresh water     0,24     mg/l       Normal value in fresh water     0,24     mg/l       Normal value in fresh water sediment     0,917     mg/kg       Normal value for fresh water sediment     0,092     mg/kg       Normal value for water, intermittent release     0,071     mg/l       Normal value of the terrestrial compartment     7,5     mg/kg       Health - Derived no-effect level - DNEL / DMEL / Effects on workers     Effects on consumers     Chronic kaute is systemic kaute is solid ka	 Dral				0,425 mg/kg		Systemic		Systemic
bw/d         bw/d         bw/d           ALCCHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS         mg/l         bw/d           Predicted concentration - PNEC         0,24         mg/l         bw/d           Normal value in fresh water         0,024         mg/l         bw/d           Normal value for marine water sediment         0,024         mg/l         bw/d           Normal value for marine water sediment         0,024         mg/l         bw/d           Normal value for marine water sediment         0,020         mg/kg         bw/d           Normal value for marine water sediment         0,0271         mg/l         bw/d           Normal value for the terrestrial compartment         7,5         mg/kg         bw/d           Normal value for the terrestrial compartment         7,5         mg/kg         bw/d           Normal value for the terrestrial compartment         7,5         mg/kg         bw/d           Normal value for the terrestrial compartment         Kotter is subminer         Acute is subminer         Chronic local         Acute is subminer         Kotter is subminer         Kotter is subminer         Subminer <t< td=""><td>nhalation</td><td></td><td></td><td>1,5</td><td>1,5 mg/m3</td><td></td><td></td><td>6</td><td>6 mg/m3</td></t<>	nhalation			1,5	1,5 mg/m3			6	6 mg/m3
Normal value in fresh water         0.24         mg/l           Normal value in marine water         0.024         mg/l         Img/l         Img/l </td <td>Skin</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>85 mg/kg bw/d</td>	Skin								85 mg/kg bw/d
Predicted no-effect concentration - PNEC         0.24         mg/l           Normal value in fresh water         0.24         mg/l           Normal value in fresh water         0.024         mg/l           Normal value for fresh water sediment         0.917         mg/kg           Normal value for marine water sediment         0.092         mg/kg           Normal value for marine water sediment         0.092         mg/kg           Normal value for water, intermittent release         0.071         mg/l           Normal value for the terrestrial compartment         7.5         mg/kg           Health - Derived no-effect level - DNEL / DMEL Effects on consumers         Effects on workers         Chronic local         Chronic systemic         Sy	ALCOHOLS, C12-14, ETHO	XYLATED, SU	LFATES, SODIUI	VI SALTS					
Normal value in marine water       0.024       mg/l         Normal value for fresh water sediment       0.992       mg/kg         Normal value for marine water sediment       0.092       mg/kg         Normal value for water, intermittent release       0.071       mg/l         Normal value for water, intermittent release       0.071       mg/l         Normal value for the terrestrial compartment       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on consumers       Effects on workers         Route of exposure       Acute local       Acute systemic       Systemic         Oral       15 mg/kg       Effects on workers       Systemic         Oral       1650 mg/kg       Systemic       Systemic         Skin       1650 mg/kg       2750 mg         BRONOPOL       Effects on consumers       2750 mg         Normal value in fresh water       0,01       mg/l         Normal value in fresh water       0,01       mg/l         Normal value in marine water sediment       0,041       mg/kg         Normal value in fresh water sediment       0,033       mg/kg         Normal value for fresh water sediment       0,043       mg/l         Normal value for water, intermittent release       0,033	Predicted no-effect concentration	- PNEC							
Normal value for fresh water sediment       0,917       mg/kg         Normal value for marine water sediment       0,092       mg/kg         Normal value of sTP microorganisms       10       g/t         Normal value of sTP microorganisms       10       g/t         Normal value of the terrestrial compartment       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on consumers       Effects on sorters         Route of exposure       Acute local       Acute systemic       Chronic local       Acute local       Acute consumers       Chronic systemic         Oral       15 mg/kg       bw/d       155 mg/n       175 mg/n         Skin       1650 mg/kg       2750 mg/kg       2750 mg/kg         Normal value in fresh water       0,01       mg/kg       2750 mg/kg         Normal value in fresh water       0,001       mg/kg       2750 mg/kg         Normal value in fresh water       0,01       mg/kg       2750 mg/kg         Normal value for fresh water sediment       0,001       mg/kg       2750 mg/kg         Normal value in fresh water       0,01       mg/kg       2750 mg/kg         Normal value for fresh water sediment       0,001       mg/kg       2750 mg/kg         Normal value for stater sediment	Normal value in fresh water				0,24	mç	g/l		
Normal value for marine water sediment       0,092       mg/kg         Normal value for water, intermittent release       0,071       mg/l         Normal value for the terrestrial compartment       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL       Effects on consumers       Effects on consumers       Effects on consumers       Chronic kaute of systemic       Acute local       Acute systemic       Acute local       Acute systemic       Acute local       Acute systemic       Systemi	Normal value in marine water				0,024	mg	g/l		
Normal value for water, intermittent release       0,071       mg/l         Normal value of STP microorganisms       10       g/l         Normal value of STP microorganisms       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL Effects on consumers       Effects on consumers       Effects on workers       Effects on workers       Chronic local       Acute local       Acute systemic       Systemic       Acute local       Acute systemic       Acute local       Acute systemic       <	Normal value for fresh water sedi	ment			0,917	mg	g/kg		
Normal value of STP microorganisms       10       g/l         Normal value for the terrestrial compartment       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL Effects on consumers       Effects on consumers       Effects on workers         Route of exposure       Acute local       Acute systemic       Chronic local       Chronic local systemic       Acute local       Acute local       Chronic local systemic       Acute local systemic       Chronic local systemic       Chronic systemic       Chronic local systemic       Chronic l	Normal value for marine water se	diment			0,092	mg	g/kg		
Normal value for the terrestrial compartment       7,5       mg/kg         Health - Derived no-effect level - DNEL / DMEL Effects on consumers       Effects on workers       Effects on workers       Effects on workers       Chronic local       Acute         Route of exposure       Acute local       Acute systemic       Chronic local       Chronic systemic       Acute       Chronic local       Chronic systemic       Chronic systemic       Chronic local       Chronic systemic       Chronic systemic       Chronic systemic       Chronic systemic       Chronic systemic       Chronic systemic       Chronic systemic       Chronic systemic       Systemic	Normal value for water, intermitte	nt release			0,071	mç	g/l		
Health - Derived no-effect level - DNEL / DMEL Effects on consumers       Effects on workers       Effects on workers         Route of exposure       Acute local       Acute systemic       Chronic local       Chronic local </td <td>Normal value of STP microorgani</td> <td>sms</td> <td></td> <td></td> <td>10</td> <td>g/l</td> <td></td> <td></td> <td></td>	Normal value of STP microorgani	sms			10	g/l			
Effects on consumers       Effects on workers         Route of exposure       Acute local       Acute systemic       Chronic local       Systemic         Oral       15 mg/kg       bw/d       bw/d       175 mg/kg         Inhalation       52 mg/m3       2750 mg/kg       bw/d       2750 mg/kg         Skin       1650 mg/kg       bw/d       bw/d       bw/d       2750 mg/kg         BRONOPOL       Normal value in fresh water       0,01       mg/l       175 mg/kg         Normal value in fresh water       0,001       mg/l       175 mg/kg         Normal value for fresh water sediment       0,001       mg/l       175 mg/kg         Normal value for marine water sediment       0,001       mg/l       175 mg/kg         Normal value for water, intermittent release       0,003       mg/kg       175 mg/kg         Normal value for water, intermittent release       0,003       mg/l       175 mg/kg         Normal value of STP microorganisms       0,43       mg/l       175 mg/kg	Normal value for the terrestrial co	mpartment			7,5	mg	g/kg		
Route of exposure       Acute local       Acute systemic       Chronic local systemic       Acute local systemic       Chronic systemic       Systemic       Chronic local systemic       Chronic systemic       Systemic       Chronic systemic       Systemic       Systemic       Systemic       Chronic systemic       Systemic       Chronic systemic       Systemic <td>Health - Derived no-effect le</td> <td>Effects on</td> <td>DMEL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Health - Derived no-effect le	Effects on	DMEL						
Oral       15 mg/kg bw/d         Inhalation       52 mg/m3         Skin       1650 mg/kg bw/d         BRONOPOL       2750 mg bw/d         Predicted no-effect concentration - PNEC         Normal value in fresh water       0,01         Normal value in marine water       0,001         Normal value for fresh water sediment       0,041         Normal value for marine water sediment       0,003         Normal value for water, intermittent release       0,003         Normal value of STP microorganisms       0,43         Normal value for the terrestrial compartment       0,5	Route of exposure		Acute systemic	Chronic local				Chronic local	
Inhalation52 mg/m3175 mg/ 2750 mg bw/dSkin1650 mg/kg bw/d2750 mg bw/dBRONOPOLPredicted no-effect concentration - PNECNormal value in fresh water0,01mg/lNormal value in marine water0,001mg/lNormal value for fresh water sediment0,003mg/kgNormal value for marine water sediment0,003mg/kgNormal value for water, intermittent release0,003mg/lNormal value of STP microorganisms0,43mg/kg	Oral						systemic		systemic
Skin       1650 mg/kg       2750 mg         bw/d       bw/d       bw/d         BRONOPOL       Predicted no-effect concentration - PNEC       0,01       mg/l         Normal value in fresh water       0,01       mg/l       0         Normal value in fresh water       0,001       mg/l       0         Normal value for fresh water sediment       0,041       mg/kg       0         Normal value for marine water sediment       0,003       mg/l       0         Normal value for water, intermittent release       0,003       mg/l       0         Normal value of STP microorganisms       0,43       mg/kg       0	Inhalation								175 mg/m3
bw/d     bw/d       BRONOPOL     Predicted no-effect concentration - PNEC       Normal value in fresh water     0,01     mg/l       Normal value in fresh water     0,001     mg/l       Normal value for fresh water sediment     0,001     mg/kg       Normal value for marine water sediment     0,003     mg/kg       Normal value for water, intermittent release     0,003     mg/l       Normal value of STP microorganisms     0,43     mg/kg					5				-
Predicted no-effect concentration - PNEC         Normal value in fresh water       0,01       mg/l         Normal value in marine water       0,001       mg/l         Normal value for fresh water sediment       0,041       mg/kg         Normal value for marine water sediment       0,003       mg/kg         Normal value for water, intermittent release       0,003       mg/l         Normal value of STP microorganisms       0,43       mg/l         Normal value for the terrestrial compartment       0,5       mg/kg	Skin								
Normal value in fresh water0,01mg/lNormal value in marine water0,001mg/lNormal value for fresh water sediment0,041mg/kgNormal value for marine water sediment0,003mg/kgNormal value for water, intermittent release0,003mg/lNormal value of STP microorganisms0,43mg/lNormal value for the terrestrial compartment0,5mg/kg	PROVODOL								
Normal value in marine water0,001mg/lNormal value for fresh water sediment0,041mg/kgNormal value for marine water sediment0,003mg/kgNormal value for water, intermittent release0,003mg/lNormal value of STP microorganisms0,43mg/lNormal value for the terrestrial compartment0,5mg/kg	BRONOPOL	- PNEC							
Normal value for fresh water sediment       0,041       mg/kg         Normal value for marine water sediment       0,003       mg/kg         Normal value for water, intermittent release       0,003       mg/l         Normal value of STP microorganisms       0,43       mg/l         Normal value for the terrestrial compartment       0,5       mg/kg					0,01	mg	g/I		
Normal value for marine water sediment       0,003       mg/kg         Normal value for water, intermittent release       0,003       mg/l         Normal value of STP microorganisms       0,43       mg/l         Normal value for the terrestrial compartment       0,5       mg/kg	Predicted no-effect concentration				0,001	mg	g/l		
Normal value for water, intermittent release     0,003     mg/l       Normal value of STP microorganisms     0,43     mg/l       Normal value for the terrestrial compartment     0,5     mg/kg	Predicted no-effect concentration Normal value in fresh water								
Normal value of STP microorganisms     0,43     mg/l       Normal value for the terrestrial compartment     0,5     mg/kg	Predicted no-effect concentration Normal value in fresh water Normal value in marine water	ment			0,041	mg	g/kg		
Normal value for the terrestrial compartment 0,5 mg/kg	Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for fresh water sedi								
	Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for fresh water sedi Normal value for marine water se	diment			0,003	mg	j/kg		
Health - Derived no-effect level - DNEL / DMEL	Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for fresh water sedi Normal value for marine water se Normal value for water, intermitte	ediment ent release			0,003 0,003	mç	ŋ/kg ŋ/l		
Effects on Effects on consumers workers	Predicted no-effect concentration Normal value in fresh water Normal value in marine water Normal value for fresh water sedi Normal value for marine water se Normal value for water, intermitte Normal value of STP microorgani	ediment ent release			0,003 0,003 0,43	mg mg mg	g/kg g/l g/l		



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2

Rev. Date 12/08/2022 Page

7 of 17

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,1 mg/kg bw/d		0,35 mg/kg bw/d				
Inhalation	1,3 mg/m3	3,7 mg/m3	1,3 mg/m3	1,2 mg/m3	4,2 mg/m3	12,3 mg/m3	4,2 mg/m3	4,1 mg/m3
Skin	0,008 mg/cm2	4,2 mg/kg bw/d	0,008 mg/cm2	1,4 mg/kg bw/d	0,013 mg/cm2	7 mg/kg bw/d	0,013 mg/cm2	2,3 mg/kg bw/d
MORPHOLINE Threshold Limit Value								
Туре	Country	TWA/8h		STEL/15min		Remarks /		
		mg/m3	ppm	mg/m3	ppm	Observatio	ns	
TLV	BGR	20				SKIN		
TLV	CZE	35		70		SKIN		
AGW	DEU	36	10	72	20	SKIN		
MAK	DEU	36	10	72	20			
TLV	DNK	36	10			SKIN		
VLA	ESP	36	10	72	20			
VLEP	FRA	36	10	72	20			
TLV	GRC	36	10	72	20			
AK	HUN	70		70		SKIN		
GVI/KGVI	HRV	36	10	72	20	SKIN		
VLEP	ITA	36	10	72	20	SKIN		
TGG	NLD	36	10	72	20	SKIN		
VLE	PRT	36	10	72	20			
NDS/NDSCh	POL	36		72				
NPEL	SVK	36	10	72				
WEL	GBR	36	10	72	20	SKIN		
OEL	EU	36	10	72	20			
TLV-ACGIH		71	20			SKIN		
Predicted no-effect concentrat	ion - PNEC							
Normal value in fresh water				0,1	mg	g/l		
Normal value in marine water				0,01	mg	g/I		
Normal value for fresh water s	ediment			0,01	mg	j/kg		
Normal value for marine water	sediment			1,49	mg	j/kg		
Normal value for water, interm	ittent release			0,28	mg	g/I		
Normal value of STP microorg	anisms			10	mg	g/I		
Normal value for the terrestrial	compartment			0,239	mg	j/kg		
Health - Derived no-effect	Effects on	MEL			Effects on			
Route of exposure	consumers Acute local	Acute systemic	Chronic local	Chronic	workers Acute local	Acute	Chronic local	Chronic
Oral		38 mg/kg bw/d		systemic 6,3 mg/kg		systemic		systemic
Inhalation	18 mg/m3	0 0	3,2 mg/m3	bw/d 45 mg/m3			36 mg/m3	91 mg/m3
	io ing/ino		J,∠ my/mo				50 mg/m8	-
Skin				0,52 mg/kg bw/d				1,04 mg/kg bw/d

Legend:



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018			
Revision n° 2			
Rev. Date 12/08/2022			
Page			
8 of 17			

#### (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 =

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 hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I 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 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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

#### ENVIRONMENTAL EXPOSURE CONTROLS

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

### **SECTION 9.** Physical and chemical properties

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

<b>Properties</b> Appearance	<b>Value</b> liquid	Information
Colour	white	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not available	
Auto-ignition temperature	not available	



Conforms to Reg. (EU) 878/2020

9 of 17
Page
Rev. Date 12/08/2022
Revision n° 2
Issued on 24/05/2018

Decomposition temperature	not available
рН	$9.0 \pm 0.5$
Kinematic viscosity	not available
Dynamic viscosity	250 ± 50 mPa*s (25 °C; rotore 2; velocità 30)
Solubility	soluble in water
Partition coefficient: n-octanol/water	not available
Vapour pressure	not available
Density and/or relative density	1,01
Relative vapour density	not available
Particle characteristics	not applicable

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	0,10 % - 1,00 g/litre
Explosive properties	not classified as explosive, contains no explosive substances according to CLP Art. (14 (2))
Oxidising properties	the product is not an oxidizing substance

## **SECTION 10. Stability and reactivity**

#### 10.1. Reactivity

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

BRONOPOL Decomposes on contact with: water, metals, strong bases.

MORPHOLINE On contact with: strong oxidising agents, reducing agents, strong acids, strong bases. May develop: heat.

#### 10.2. Chemical stability

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

#### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

#### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

10 of 17

BRONOPOL Avoid exposure to: light, UV rays, moisture.

### 10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

BRONOPOL May develop: nitric oxide, carbon oxides, hydrobromic acid.

## **SECTION 11. Toxicological information**

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and oth	<u>ner information</u>
Information not available	
Information on likely routes of exposure	
Information not available	a franciska at a state
Delayed and immediate effects as well as chronic effect Information not available	s from short and long-term exposure
Interactive effects	
Information not available	
ACUTE TOXICITY	
ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 ma/ka
ATE (Dermal) of the mixture:	Not classified (no significant component)
BENZENESULFONIC ACID, C10-13-ALKYL DERIVS.,	SODIUM SALTS
LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	1080 mg/kg rat
ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHO	
LD50 (Dermal):	> 2000 mg/kg rabbit
LD50 (Oral):	> 300 mg/kg rat
ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SC	
LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	> 2000 mg/kg rat
BRONOPOL	
LD50 (Dermal):	64 mg/kg rat
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):	254 mg/kg rat
LC50 (Inhalation mists/powders):	0,588 mg/l/4h rat
MORPHOLINE	
LD50 (Dermal):	500 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):	1050 mg/kg Rat
LC50 (Inhalation vapours):	35,1 mg/l/1h Rat



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

11 of 17

**SKIN CORROSION / IRRITATION** Does not meet the classification criteria for this hazard class SERIOUS EYE DAMAGE / IRRITATION Causes serious eye irritation RESPIRATORY OR SKIN SENSITISATION Does not meet the classification criteria for this hazard class Respiratory sensitization Information not available Skin sensitization Information not available 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 Information not available Adverse effects on development of the offspring Information not available Effects on or via lactation Information not available STOT - SINGLE EXPOSURE Does not meet the classification criteria for this hazard class Target organs Information not available Route of exposure Information not available STOT - REPEATED EXPOSURE Does not meet the classification criteria for this hazard class Target organs Information not available Route of exposure Information not available 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**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

#### 12.1. Toxicity

MORPHOLINE	

LC50 - for Fish	179 mg/l/96h
EC50 - for Crustacea	45 mg/l/48h
EC50 - for Algae / Aquatic Plants	51 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	31 mg/l 72h

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018	
Revision nº 2	
Rev. Date 12/08/2022	
Page	
12 of 17	

EC50 - for Algae / Aquatic Plants	> 1 mg/l/72h Desmodesmus subspicatus
EC10 for Crustacea	> 0,1 mg/l Daphnia magna
BRONOPOL	
LC50 - for Fish	20 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1,6 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,25 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0,08 mg/l
BENZENESULFONIC ACID, C10-13-ALKYL	
DERIVS., SODIUM SALTS LC50 - for Fish	1,67 mg/l/96h
EC50 - for Crustacea	2,9 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,91 mg/l/72h
Chronic NOEC for Fish	0,23 mg/l 72d
Chronic NOEC for Crustacea	0,5 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	0,5 mg/l 96h
ALCOHOLS, C12-14, ETHOXYLATED,	
SULFATES, SODIUM SALTS LC50 - for Fish	> 1 mg/l/96h Danio rerio
EC50 - for Crustacea	7,2 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	27 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0.14 mg/l 28d Oncorhynchus mykiss
Chronic NOEC for Crustacea	0.18 mg/l 21d Daphnia magna
	o, io mgn z io Dupiniu mugnu

Chronic NOEC for Algae / Aquatic Plants

#### 12.2. Persistence and degradability

MORPHOLINE Solubility in water

Rapidly degradable

ALCOHOLS, C12-13, BRANCHED AND LINEAR, ETHOXYLATED Rapidly degradable

BRONOPOL

Solubility in water Rapidly degradable

BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS Rapidly degradable

ALCOHOLS, C12-14, ETHOXYLATED, SULFATES, SODIUM SALTS Rapidly degradable

12.3. Bioaccumulative potential

s 0,93 mg/l Desmodesmus subspicatus

1000 - 10000 mg/l

286000 mg/l



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018
Revision n° 2
Rev. Date 12/08/2022
Page
13 of 17

MORPHOLINE Partition coefficient: n-octanol/water	-2,55
BCF	< 2,8
BRONOPOL	
Partition coefficient: n-octanol/water	0,22
BCF	3,16
BENZENESULFONIC ACID, C10-13-ALKYL DERIVS., SODIUM SALTS	
BCF	159
12.4. Mobility in soil	
MORPHOLINE	
Partition coefficient: soil/water	-0,6196
ALCOHOLS, C12-13, BRANCHED AND	
LINEAR, ETHOXYLATED Partition coefficient: soil/water	3,69
, -	3,69

#### 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.

#### 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. CONTAMINATED PACKAGING

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

## **SECTION 14. Transport information**



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018	
Revision n° 2	
Rev. Date 12/08/2022	
Page	
14 of 17	

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

#### 14.1. UN number or ID number

not applicable

#### 14.2. UN proper shipping name

not applicable

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

not applicable

#### 14.4. Packing group

not applicable

#### 14.5. Environmental hazards

not applicable

#### 14.6. Special precautions for user

not applicable

#### 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: None

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

<u>Substances in Candidate List (Art. 59 REACH)</u> GLUTARALDEIDE REACH Reg.: 01-2119455549-26



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision n° 2 Rev. Date 12/08/2022 Page

15 of 17

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.

Regulation (EC) No. 648/2004 Ingredients according to Regulation (EC) No. 648/2004

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017) WGK 2: Hazard to waters

#### 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## **SECTION 16. Other information**

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

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018 Revision nº 2 Rev. Date 12/08/2022 Page 16 of 17

H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- **OEL: Occupational Exposure Level**
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
   Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 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)
- 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



Conforms to Reg. (EU) 878/2020

Issued on 24/05/2018
Revision n° 2
Rev. Date 12/08/2022
Page
17 of 17

- 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 / 08 / 09 / 11 / 12 / 15.