Safety Data Sheet

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

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

1.1. Product identifier

Product name **POWERBOND**
UFI : **DK64-S08W-800R-SXCG**

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

Intended use **Ink-Jet applications UV inks**

1.3. Details of the supplier of the safety data sheet

Name **Inkcups Corp.**
310 Andover St.
Full address **Danvers, MA 01923**
District and Country **U.S.**

Tel. 978-646-8980

e-mail address of the competent person
responsible for the Safety Data Sheet **compliance@inkcups.com**
Supplier:

1.4. Emergency telephone number

For urgent inquiries refer to **18004249300**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

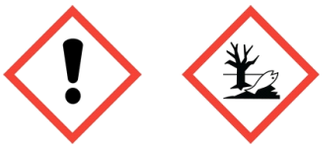
Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

P280	Wear protective gloves / eye protection / face protection.
P273	Avoid release to the environment.
P391	Collect spillage.
P261	Avoid breathing dust, gas or vapours.
P312	Call a POISON CENTRE or a doctor if you feel unwell.
P264	Wash the hands thoroughly after handling.

Contains: exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato
1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate
EBECRYL LED 02
Mercapto derivative
Siloxanes and silicones, 3- [3- (acetoxy) -2-hydroxypropioxy] propyl Me, di-Me, 3- [2 hydroxy-3 - [(1-oxo-2-propen-1-yl) oxy] propoxy] propyl
2-Phenoxyethanol acrylate
acrylate, 2- (2-ethoxy ethoxy) ethyl
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide
3,5,5-trimethylcyclohexyl acrylate
2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

The product is classified both in acute and long-term aquatic hazard categories: it is possible to use only hazard statement H410 on the label.

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato		
INDEX 607-133-00-9 EC 227-561-6 CAS 5888-33-5 REACH Reg. 01-2119957862-25-0001	28,5 ≤ x < 30	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
3,5,5-trimethylcyclohexyl acrylate		
INDEX 607-133-00-9 EC 289-200-9 CAS 86178-38-3 REACH Reg. 01-2120747316-53-0000	15 ≤ x < 16,5	Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411
acrylate, 2- (2-ethoxy ethoxy) ethyl		
INDEX - EC 230-811-7 CAS 7328-17-8	13,5 ≤ x < 15	Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1A H317 LD50 Oral: 1860 mg/kg, ATE Dermal: 1100 mg/kg
EBECRYL LED 02		
INDEX EC - CAS 28961-43-5	8 ≤ x < 9	Eye Irrit. 2 H319, Skin Sens. 1 H317
2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester		
INDEX - EC 282-810-6 CAS 84434-11-7 REACH Reg. 01-2119987994-10-0000	3,5 ≤ x < 4	Skin Sens. 1B H317, Aquatic Chronic 2 H411
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide		
INDEX 015-189-00-5 EC 423-340-5 CAS 162881-26-7 REACH Reg. 01-2119489401-38-0000	2,5 ≤ x < 3	Skin Sens. 1A H317, Aquatic Chronic 4 H413
Mercapto derivative		
INDEX EC - CAS 7575-23-7	2 ≤ x < 2,5	Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1 ATE Oral: 500 mg/kg

1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate		
INDEX -	1,5 ≤ x < 2	Repr. 2 H361, Skin Sens. 1 H317, Aquatic Chronic 1 H410 M=1
EC 915-687-0		
CAS 1065336-91-5		
REACH Reg. 01-2119491304-40-XXXX		
2-Phenoxyethanol acrylate		
INDEX -	1,5 ≤ x < 2	Repr. 2 H361d, Skin Sens. 1A H317, Aquatic Chronic 2 H411
EC 256-360-6		
CAS 48145-04-6		
REACH Reg. 01-2119980532-35-xxxx		
Siloxanes and silicones, 3- [3-(acetoxy) -2-hydroxypropioxy] propyl Me, di-Me, 3- [2 hydroxy-3 - [(1-oxo-2-propen-1-yl) oxy] propoxy] propyl		
INDEX -	1 ≤ x < 1,5	Skin Sens. 1A H317
EC 603-069-0		
CAS 125455-51-8		
1,7,7-trimethyl tricyclo [2.2.1.02,6] heptane		
INDEX -	0,09 ≤ x < 0,11	Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 208-083-7		
CAS 508-32-7		
Canphene		
INDEX -	0,09 ≤ x < 0,11	Flam. Sol. 2 H228, Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 201-234-8		
CAS 79-92-5		
REACH Reg. 01-2119446293-40		
N-BUTYL ACRYLATE		
INDEX 607-062-00-3	0,07 ≤ x < 0,09	Flam. Liq. 3 H226, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Classification note according to Annex VI to the CLP Regulation: D
EC 205-480-7		
CAS 141-32-2		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

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

Rescuer protection

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

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

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

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

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

Call a POISON CENTRE or a doctor if you feel unwell.

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

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

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.28 от 2 Април 2024г.)
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 18. října 2023, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe
DNK	Danmark	BEK nr 291 af 19/03/2024 (Historisk) Bekendtgørelse om grænseværdier for stoffer og materialer (kemiske agenser) i arbejdsmiljøet
ESP	España	Límites de exposición profesional para agentes químicos en España 2024
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
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
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Regeling van de Minister van Sociale Zaken en Werkgelegenheid van 13 mei2024, nr. 2024-0000092805, tot wijziging van deArbeidsomstandighedenregeling in verband met de implementatie vanRichtlijn 2022/431
PRT	Portugal	Decreto-Lei n.º 102/2024, de 4 de dezembro. Sumário: Transpõe para a ordem jurídica interna a Diretiva (UE) 2022/431, relativa à proteção dos trabalhadores contra riscos ligados à exposição a agentes cancerígenos ou mutagénicos e procede à quarta alteração
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	HOTĂRÂRE nr. 179 din 28 februarie 2024 pentru modificarea şi completarea Hotărârii Guvernului nr. 1.093/2006 privind stabilirea cerinţelor minime de securitate şi sănătate pentru protecţia lucrătorilor împotriva riscurilor legate de expunerea la agenţi ca
SWE	Sverige	Arbetsmiljöverkets föreskrifter och allmänna råd (AFS 2023:14) om gränsvärden för luftvägsexponering i arbetsmiljön

TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733; 20.10.2023 / 32345.
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.
	ACGIH	ACGIH 2025

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,00092	mg/l
Normal value in marine water	0,000092	mg/l
Normal value for fresh water sediment	0,145	mg/kg/d
Normal value for marine water sediment	0,0145	mg/kg/d
Normal value for water, intermittent release	0,00704	mg/l
Normal value of STP microorganisms	2	mg/l
Normal value for the terrestrial compartment	0,0285	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,83 mg/kg/d				
Skin			VND	0,83 mg/kg/d			VND	1,39 mg/kg/d

3,5,5-trimethylcyclohexyl acrylate

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,00059	mg/l
Normal value in marine water	0,000059	mg/l
Normal value for fresh water sediment	0,029	mg/kg
Normal value for marine water sediment	0,003	mg/kg
Normal value for water, intermittent release	0,0059	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,005	mg/kg

2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,001	mg/l
Normal value in marine water	0	mg/l
Normal value for fresh water sediment	0,24	mg/kg/d
Normal value for marine water sediment	0,024	mg/kg/d
Normal value for water, intermittent release	0,035	mg/l
Normal value of STP microorganisms	NPI	
Normal value for the food chain (secondary poisoning)	NPI	
Normal value for the terrestrial compartment	0,047	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	5,88 mg/m3
Skin							VND	1,7 mg/kg bw/d

phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,001	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,712	mg/kg
Normal value for marine water sediment	0,712	mg/kg
Normal value for water, intermittent release	0,001	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	20	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,5 mg/kg/d				
Inhalation				5,2 mg/m3		21 mg/m3		21 mg/m3
Skin				1,5 mg/kg/d		3,3 mg/kg/d		3,3 mg/kg/d

1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate

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

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

2-Phenoxyethanol acrylate

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,002	mg/l
Normal value in marine water	0,0002	mg/l
Normal value for fresh water sediment	0,04	mg/kg/d
Normal value for marine water sediment	0,004	mg/kg/d
Normal value for water, intermittent release	0,0121	mg/l
Normal value of STP microorganisms	1,77	mg/l
Normal value for the terrestrial compartment	0,006	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							77 mg/m3	10 mg/m3

Skin	VND	1,5 mg/kg

reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,018	mg/l
Normal value in marine water	0,0018	mg/l
Normal value for fresh water sediment	2	mg/kg/d
Normal value for marine water sediment	0,2	mg/kg/d
Normal value for water, intermittent release	0,018	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the food chain (secondary poisoning)	41,33	mg/kg
Normal value for the terrestrial compartment	10	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,93 mg/kg bw/d				
Inhalation				1,62 mg/m3				6,6 mg/m3
Skin				0,83 mg/kg bw/d				1,67 mg/kg bw/d

Canphene

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,00072	mg/l
Normal value in marine water	0,000072	mg/l
Normal value for fresh water sediment	0,0262	mg/kg/d
Normal value for marine water sediment	0,00262	mg/kg/d
Normal value for water, intermittent release	0,00072	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	2,08	mg/kg food
Normal value for the terrestrial compartment	0,0211	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,625 mg/kg/d	VND	0,1 mg/kg/d				
Inhalation	VND	54,3 mg/m3	VND	54,3 mg/m3	VND	110,19 mg/m3	VND	110,19 mg/m3
Skin	VND	0,625 mg/kg/d	VND	0,1 mg/kg/d	VND	1,25 mg/kg/d	VND	0,21 mg/kg/d

N-BUTYL ACRYLATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	11	2	53	10	
TLV	CZE	10	1,9	20	3,8	
AGW	DEU	11	2	22	4	
MAK	DEU	11	2	22	4	SKIN
TLV	DNK	11	2	53	10	E
VLA	ESP	11	2	53	10	

VLEP	FRA	11	2	53	10
AK	HUN	11	2	53	10
VLEP	ITA	11	2	53	10
TGG	NLD	11		53	
VLE	PRT	11	2	53	10
NDS/NDSCh	POL	11		30	
TLV	ROU	11	2	53	10
NGV/KGV	SWE	11	2	53	10
ESD	TUR	11	2	53	10
WEL	GBR	5	1	26	5
OEL	EU	11	2	53	10
ACGIH		10	2		

4-methoxyphenol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	5				
ACGIH		5				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0136	mg/l
Normal value in marine water	0,00136	mg/l
Normal value for fresh water sediment	0,125	mg/kg/d
Normal value for marine water sediment	0,0125	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,017	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	10 mg/m3	VND	3 mg/m3

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 hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

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

EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

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

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	transparent	
Odour	characteristic of solvent	
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	> 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Solubility	insoluble	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	not available	
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

Information not available

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 ACRYLATE

When hot it can polymerise with explosion even when stabilised with 20 ppm of momomethyl ether hydroquinone. Store at below < 35°C/95°F and out of direct light. Always leave a layer of air on top of the liquid.

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 ACRYLATE

May polymerise on contact with: amines,bases,halogens,strong oxidising agents,acids,hydrogen compounds.May polymerise if exposed to: heat.Forms explosive mixtures with: hot air.

10.4. Conditions to avoid

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

N-BUTYL ACRYLATE

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

10.5. Incompatible materials

N-BUTYL ACRYLATE

Incompatible with: amines,halogens,oxidising substances,strong acids,alkalis.

10.6. Hazardous decomposition products

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

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

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

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato

LD50 (Dermal):	3000 mg/Kg/24h Coniglio / Rabbit
LD50 (Oral):	> 4350 mg/kg Ratto / Rat

3,5,5-trimethylcyclohexyl acrylate

LD50 (Oral):	> 5000 mg/kg Ratto / Rat

acrylate, 2- (2-ethoxy ethoxy) ethyl

LD50 (Dermal):	> 1000 mg/kg/24h Coniglio / Rabbit
ATE (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):	1860 mg/kg Ratto / Rat

gamma-methacryloxy propyl trimethoxy silane

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

2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

LD50 (Dermal):	> 2000 mg/kg Ratto - Rat
LD50 (Oral):	> 2000 mg/kg Ratto / Rat

phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide

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

Mercapto derivative

ATE (Oral):	500 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)

1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate

LD50 (Dermal):	> 3000 mg/kg Ratto / Rat
LD50 (Oral):	> 2000 mg/kg Ratto / Rat

2-Phenoxyethanol acrylate
LD50 (Dermal): > 2000 mg/kg Ratto / Rat
LD50 (Oral): 5000 mg/kg Ratto / Rat

Siloxanes and silicones, 3- [3- (acetoxy) -2-hydroxypropioxy] propyl Me, di-Me, 3- [2 hydroxy-3 - [(1-oxo-2-propen-1-yl) oxy] propoxy] propyl
LD50 (Oral): > 2000 mg/kg Ratto / Rat

Canphene
LD50 (Dermal): > 2500 mg/kg Coniglio / Rabbit
LD50 (Oral): > 5000 mg/kg Ratto / Rat

N-BUTYL ACRYLATE
LD50 (Dermal): 750 mg/kg Rabbit
LD50 (Oral): 900 mg/kg Rat
LC50 (Inhalation vapours): 10,3 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato	
LC50 - for Fish	0,7 mg/l/96h Danio rerio
EC50 - for Algae / Aquatic Plants	1,98 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea	0,09 mg/l/21d Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	0,405 mg/l/72h Pseudokirchneriella subcapitata (72d)
3,5,5-trimethylcyclohexyl acrylate	
LC50 - for Fish	1,9 mg/l/96h Danio rerio
EC50 - for Crustacea	14,43 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 0,59 mg/l/72h Pseudokirchneriella subcapitata
EC10 for Algae / Aquatic Plants	19,9 mg/l/72h Pseudokirchneriella subcapitata
acrylate, 2- (2-ethoxy ethoxy) ethyl	
EC50 - for Crustacea	10,56 mg/l/48h Daphnia magna (Dir 67/548/CEE, All. V)
EC50 - for Algae / Aquatic Plants	36,63 mg/l/72h Desmodesmus subspicatus (DIN 38412, Parte 9)
Chronic NOEC for Fish	10 mg/l/96h Leucidus idus (DIN 38412, Parte 15)
gamma-methacryloxy propyl trimethoxy silane	
Chronic NOEC for Fish	> 100 mg/l Brachydanio rerio (96h)
Chronic NOEC for Crustacea	> 100 mg/l Daphnia magna (48h)
Chronic NOEC for Algae / Aquatic Plants	> 100 mg/l Desmodesmus subspicatus (72h)
2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester	
LC50 - for Fish	1,89 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	2,26 mg/l/48h Daphnia magna
phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide	
LC50 - for Fish	> 9 mg/l/96h Brachydanio rerio (OECD 203)
EC50 - for Crustacea	> 1175 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	> 26 mg/l/72h Desmodesmus subspicatus (OECD 201)
Chronic NOEC for Crustacea	31 mg/l Daphnia magna (21 d; OECD 211)
1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate	
LC50 - for Fish	0,9 mg/l/96h Danio rerio
EC50 - for Crustacea	20 mg/l/24h 24 h / Daphnia magna
EC50 - for Algae / Aquatic Plants	1,68 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	> 6,3 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0,22 mg/l Desmodesmus subspicatus
2-Phenoxyethanol acrylate	

LC50 - for Fish	10 mg/l/96h Fish
EC50 - for Crustacea	1,21 mg/l/48h Daphnia magna OECD TG 202
EC50 - for Algae / Aquatic Plants	4,4 mg/l/72h Desmodesmus subspicatus ISO 8692
EC10 for Algae / Aquatic Plants	0,71 mg/l/72h Desmodesmus subspicatus

Siloxanes and silicones, 3- [3- (acetoxy) -2-hydroxypropioxy] propyl Me, di-Me, 3- [2 hydroxy-3 - [(1-oxo-2-propen-1-yl) oxy] propoxy] propyl

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna (OECD 202)

Canphene

LC50 - for Fish	0,72 mg/l/96h Brachydanio rerio
EC50 - for Crustacea	22 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Desmodesmus subspicatus

12.2. Persistence and degradability

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato

Solubility in water	19,8 mg/l
NOT rapidly degradable	

3,5,5-trimethylcyclohexyl acrylate

Solubility in water	18,3 mg/l
NOT rapidly degradable	

gamma-methacryloxy propyl trimethoxy silane

Solubility in water	Reagisce lentamente mg/l

2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

Solubility in water	0,005 g/100 g acqua @20°C
NOT rapidly degradable	

phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide

NOT rapidly degradable	

1-methyl 1,2,2,6,6-pentamethylpiperidin-4-yl decanedioate bis(1,2,2,6,6-pentamethylpiperidin-4-yl) decanedioate

Solubility in water	< 100 mg/l
NOT rapidly degradable	

2-Phenoxyethanol acrylate

Solubility in water	0,525 g/l
NOT rapidly degradable	

Canphene

Solubility in water	6,275 mg/l
NOT rapidly degradable	

N-BUTYL ACRYLATE

Solubility in water	1700 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato

Partition coefficient: n-octanol/water	4,52 (OECD TG 1179
BCF	37 (56 d, Metodo: Linee Guida 305 per il Test dell'OECD, Danio rerio (pesce zebra)

3,5,5-trimethylcyclohexyl acrylate

Partition coefficient: n-octanol/water	4,6

acrylate, 2- (2-ethoxy ethoxy) ethyl

Partition coefficient: n-octanol/water	1,2 (OECD TG 117)

2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

Partition coefficient: n-octanol/water	2,91 valore stimato

2-Phenoxyethanol acrylate

Partition coefficient: n-octanol/water	2,58 @25°C

Canphene

Partition coefficient: n-octanol/water	< 4,51
BCF	> 2 l/kg

N-BUTYL ACRYLATE

Partition coefficient: n-octanol/water	2,38
BCF	37

12.4. Mobility in soil

exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato

Partition coefficient: soil/water	3,18 (Metodo. calcolato)

2,4,6-trimethylbenzoylphenylphosphinic acid ethyl ester

Partition coefficient: soil/water	3,37

2-Phenoxyethanol acrylate

Partition coefficient: soil/water	2,2

N-BUTYL ACRYLATE

Partition coefficient: soil/water	1,6

12.5. Results of PBT and vPvB assessment

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

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 3082

ADR / RID:	In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.
IMDG:	In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.
IATA:	In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato; 3,5,5-trimethylcyclohexyl acrylate)
IMDG:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato; 3,5,5-trimethylcyclohexyl acrylate)
IATA:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato; 3,5,5-trimethylcyclohexyl acrylate)

14.3. Transport hazard class(es)

ADR / RID:	Class: 9	Label: 9
IMDG:	Class: 9	Label: 9
IATA:	Class: 9	Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

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14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 lt	Tunnel restriction code: (-)
	Special provision: 274, 335, 375, 601, 650		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 lt	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: E1

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point	3 - 40

Contained substance

Point	75	N-BUTYL ACRYLATE
Point	75	3,5,5-trimethylcyclohexyl acrylate REACH Reg.: 01-2120747316-53-0000
Point	75	phenyl bis (2,4,6-trimethylbenzoyl) phosphine oxide REACH Reg.: 01-2119489401-38-0000
Point	75	4-methoxyphenol REACH Reg.: 01-

		2119541813-40
Point	75	exo-1,7,7-trimetilbiciclo(2.2.1)ept-2-il acrilato REACH Reg.: 01-2119957862-25-0001

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

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
Flam. Sol. 2	Flammable solid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1

Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H228	Flammable solid.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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

GENERAL BIBLIOGRAPHY
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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
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22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
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- 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 / 10 / 11 / 12 / 13 / 14 / 15 / 16.