

# Safety Data Sheet

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

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

### 1.1. Product identifier

Product name **PLT 15 METAL: 79-050,**  
UFI : **14A2-307J-P00R-AFHJ**

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

Intended use **Pad printing ink.**

### 1.3. Details of the supplier of the safety data sheet

Name **COMEC ITALIA SRL**  
Full address **Piazzale del lavoro 149**  
District and Country **21044 Cavarina (VA)**  
**ITALIA**  
**Tel. +39 0331 219516**  
**Fax +39 0331 216161**

e-mail address of the competent person  
responsible for the Safety Data Sheet  
Supplier:

**info@comec-italia.it**  
**Edgardo Baggini**

### 1.4. Emergency telephone number

For urgent inquiries refer to

**CENTRO ANTIVELENI OSPEDALE NIGUARDA MILANO Tel. 02/66101029 (24/24h) -**  
**CENTRO ANTIVELENI POLICLINICO A.GEMELL ROMA Tel. 06/3054343 (24/24h) -**

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

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

#### Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

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

Hazard pictograms:



Signal words:

Danger

Hazard statements:

**H226** Flammable liquid and vapour.  
**H304** May be fatal if swallowed and enters airways.  
**H318** Causes serious eye damage.  
**H315** Causes skin irritation.  
**H412** Harmful to aquatic life with long lasting effects.

Precautionary statements:

**P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
**P331** Do NOT induce vomiting.  
**P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P280** Wear protective gloves/ protective clothing / eye protection / face protection.  
**P310** Immediately call a POISON CENTER or a doctor.  
**P370+P378** In case of fire: use chemical powder, CO2 or dry send to extinguish.

**Contains:** Hydrocarbons, C10, aromatics, <1% naphthalene  
 CYCLOHEXANONE  
 AROMATIC HYDROCARBONS, C9  
 NAPHTHA (PETROL.) HYDROTREATED HEAVY

**2.3. Other hazards**

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

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

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

**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>Acrylate resin</b>		
INDEX	$25,5 \leq x < 27$	Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC		
CAS -		
<b>CYCLOHEXANONE</b>		

INDEX 606-010-00-7	19,5 ≤ x < 21	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Irrit. 2 H315 LD50 Oral: 1535 mg/kg, LD50 Dermal: 1100 mg/kg, LC50 Inhalation vapours: 11 mg/l/4h
EC 203-631-1		
CAS 108-94-1		
REACH Reg. 01-2119453616-35-xxxx		
<b>ALUMINIUM POWDER (STABILIZED)</b>		
INDEX 013-002-00-1	9 ≤ x < 10,5	Flam. Sol. 1 H228, Classification note according to Annex VI to the CLP Regulation: T
EC 231-072-3		
CAS 7429-90-5		
REACH Reg. 01-2119529243-45		
<b>4-HYDROXY-4-METHYLPENTAN-2-ONE</b>		
INDEX 603-016-00-1	8,5 ≤ x < 10	Flam. Liq. 3 H226, Eye Irrit. 2 H319
EC 204-626-7		
CAS 123-42-2		
REACH Reg. 01-2119473975-21xxxx		
<b>Hydrocarbons, C10, aromatics, &lt;1% naphthalene</b>		
INDEX -	7 ≤ x < 8	Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066
EC 918-811-1		
CAS -		
REACH Reg. 01-2119463583-34-xxxx		
<b>2-METHOXY-1-METHYLETHYL ACETATE</b>		
INDEX 607-195-00-7	5 ≤ x < 6	Flam. Liq. 3 H226, STOT SE 3 H336
EC 203-603-9		
CAS 108-65-6		
REACH Reg. 01-2119475791-29-xxxx		
<b>AROMATIC HYDROCARBONS, C9</b>		
INDEX -	2,5 ≤ x < 3	Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066, Classification note according to Annex VI to the CLP Regulation: P
EC 918-668-5		
CAS -		
REACH Reg. 01-2119455851-35-xxxx		
<b>NAPHTHA (PETROL.) HYDROTREATED HEAVY</b>		
INDEX 649-327-00-6	2 ≤ x < 2,5	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP Regulation: P
EC 265-150-3		
CAS 64742-48-9		
REACH Reg. 01-2119463258-33-0009		
<b>BUTANOL</b>		
INDEX 603-004-00-6	1 ≤ x < 1,5	Flam. Liq. 3 H226, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336 STA Oral: 500 mg/kg
EC 200-751-6		
CAS 71-36-3		

REACH Reg. 01-2119484630-38

**UOP-L Paste**

INDEX 0,48 ≤ x < 0,5 Substance with a community workplace exposure limit.

EC

CAS -

REACH Reg. 01-2119429034-49

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

**SECTION 4. First aid measures**

**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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

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

Information not available

**SECTION 5. Firefighting measures**

**5.1. Extinguishing media**

**SUITABLE EXTINGUISHING EQUIPMENT**

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

**UNSUITABLE EXTINGUISHING EQUIPMENT**

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

**5.2. Special hazards arising from the substance or mixture**

**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

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

**5.3. Advice for firefighters**

**GENERAL INFORMATION**

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

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

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

## SECTION 6. Accidental release measures

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

Block the leakage if there is no hazard.

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

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

### 6.2. Environmental precautions

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

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

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

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

### 6.4. Reference to other sections

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

## SECTION 7. Handling and storage

### 7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

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

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

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

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

# COMEC ITALIA SRL

Revision nr. 4

Dated 06/12/2022

## PLT 15 METAL: 79-050,

Printed on 06/12/2022

Page n. 6/25

Replaced revision:3 (Dated: 08/03/2021)

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
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
TUR	Türkiye	Kimyasal Maddelerde Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

### CYCLOHEXANONE

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	
TLV	BGR	40,8	10	81,6	20	SKIN
TLV	CZE	40	9,8	80	196	SKIN
AGW	DEU	80	20	80	20	SKIN
TLV	DNK	41	10			SKIN E
VLA	ESP	41	10	82	20	SKIN
VLEP	FRA	40,8	10	81,6	20	
VLEP	ITA	40,8	10	81,6	20	SKIN
TGG	NLD			50		SKIN
VLE	PRT	40,8	10	81,6	20	SKIN
NDS/NDSch	POL	40		80		SKIN
TLV	ROU	40,8	10	81,6	20	SKIN
NGV/KGV	SWE	41	10	81	20	SKIN
ESD	TUR	40,8	10	81,6	20	SKIN
WEL	GBR	41	10	82	20	SKIN
OEL	EU	40,8	10	81,6	20	SKIN
TLV-ACGIH		80	20	201	50	SKIN

#### Predicted no-effect concentration - PNEC

Normal value in fresh water	0,1	mg/l
Normal value in marine water	0,01	mg/l
Normal value for fresh water sediment	0,512	mg/kg
Normal value for marine water sediment	0,0512	mg/kg
Normal value for water, intermittent release	0,329	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0,0435	mg/kg

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

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,5 mg/kg bw/d				
Inhalation			VND	10 mg/m3			VND	40 mg/m3
Skin			VND	1 mg/kg bw/d			VND	4 mg/kg bw/d

**ALUMINIUM POWDER (STABILIZED)**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	2				
MAK	DEU	4				INHAL
MAK	DEU	1,5				RESP
TLV	DNK	5				
TLV	DNK	2				RESP
VLA	ESP	1				RESP
VLEP	FRA	5				
NDS/NDSch	POL	2,5				INHAL
NGV/KGV	SWE	5				Som Al, Totaldamm
NGV/KGV	SWE	2				RESP Som Al
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		1	0,9			RESP Al
<b>Predicted no-effect concentration - PNEC</b>						
Normal value in fresh water				0,0749		mg/l
Normal value of STP microorganisms				20		mg/l

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

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				3,95 mg/kg bw/d				
Inhalation							3,72 mg/m3	3,72 mg/m3

**4-HYDROXY-4-METHYLPENTAN-2-ONE**

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	200	41,4	300	62,1	
AGW	DEU	96	20	192	40	SKIN
MAK	DEU	96	20	192	40	SKIN
TLV	DNK	240	50			
VLA	ESP	241	50			
VLEP	FRA	240	50			

**COMEC ITALIA SRL**

Revision nr. 4

Dated 06/12/2022

**PLT 15 METAL: 79-050,**

Printed on 06/12/2022

Page n. 8/25

Replaced revision:3 (Dated: 08/03/2021)

TGG	NLD	120			SKIN
NDS/NDSCh	POL	240			
TLV	ROU	150	32	250	53
NGV/KGV	SWE	120	25	240 (C)	50 (C)
WEL	GBR	241	50	362	75
TLV-ACGIH		238	50		

Predicted no-effect concentration - PNEC					
Normal value in fresh water				2	mg/l
Normal value in marine water				0,2	mg/l
Normal value for fresh water sediment				9,06	mg/kg
Normal value for marine water sediment				0,91	mg/kg
Normal value for water, intermittent release				1	mg/l
Normal value of STP microorganisms				82	mg/l
Normal value for the terrestrial compartment				0,63	mg/kg

<b>Health - Derived no-effect level - DNEL / DMEL</b>								
	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				3,4 mg/kg				
Inhalation				11,8 mg/m3				66,4 mg/m3
Skin				3,4 mg/kg				9,4 mg/kg

**DIETHYLENE GLYCOL MONOETHYL ETHER**  
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	35	6	70	12	11
NGV/KGV	SWE	80	15	170 (C)	30 (C)	SKIN

Predicted no-effect concentration - PNEC					
Normal value in fresh water				1,98	mg/l
Normal value in marine water				0,198	mg/l
Normal value for fresh water sediment				7,32	mg/kg/d
Normal value for marine water sediment				0,732	mg/kg/d
Normal value of STP microorganisms				500	mg/l
Normal value for the food chain (secondary poisoning)				444	mg/kg
Normal value for the terrestrial compartment				0,34	mg/kg/d

<b>Health - Derived no-effect level - DNEL / DMEL</b>								
	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				50 mg/kg bw/d				
Inhalation			18 mg/m3	37 mg/m3			30 mg/m3	61 mg/m3
Skin				25 mg/kg bw/d				83 mg/kg bw/d

**Hydrocarbons, C10, aromatics, <1% naphtalene**  
**Health - Derived no-effect level - DNEL / DMEL**



**COMEC ITALIA SRL**

Revision nr. 4

Dated 06/12/2022

**PLT 15 METAL: 79-050,**

Printed on 06/12/2022

Page n. 9/25

Replaced revision:3 (Dated: 08/03/2021)

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	7,5 mg/kg/d				
Inhalation			VND	32 mg/m3			VND	151 mg/m3
Skin			VND	7,5 mg/kg/d			VND	12,5 mg/kg/d

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

**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	275	50	550	100	SKIN
TLV	CZE	270	49,14	550	100,1	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
TLV	DNK	275	50			SKIN E
VLA	ESP	275	50	550	100	SKIN
VLEP	FRA	275	50	550	100	SKIN
VLEP	ITA	275	50	550	100	SKIN
TGG	NLD	550				
VLE	PRT	275	50	550	100	SKIN
NDS/NDSch	POL	260		520		SKIN
TLV	ROU	275	50	550	100	SKIN
NGV/KGV	SWE	275	50	550	100	SKIN
ESD	TUR	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

**Predicted no-effect concentration - PNEC**

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

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

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,67 mg/kg				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3		VND	275 mg/m3
Skin			VND	54,8 mg/kg			VND	153,5 mg/kg

**AROMATIC HYDROCARBONS, C9**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks /

**COMEC ITALIA SRL**

Revision nr. 4

Dated 06/12/2022

**PLT 15 METAL: 79-050,**

Printed on 06/12/2022

Page n. 10/25

Replaced revision:3 (Dated: 08/03/2021)

					Observations
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	100	20		1,2,3 trimetilbenzene
OEL	EU	100	20		1,2,3 trimetilbenzene
TLV-ACGIH			25		1,2,3 trimetilbenzene

<b>Health - Derived no-effect level - DNEL / DMEL</b>								
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	11 mg/kg				11 mg/kg bw/d
Inhalation			VND	32 mg/m3			VND	150 mg/m3
Skin			VND	11 mg/kg			VND	25 mg/kg

**NAPHTHA (PETROL.) HYDROTREATED HEAVY**  
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
MAK	DEU	300	50	600	100		
NDS/NDSch	POL	300		900			

<b>Health - Derived no-effect level - DNEL / DMEL</b>								
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	300 mg/kg				
Inhalation			VND	900 mg/m3				1500 mg/m3
Skin			VND	300 mg/kg			VND	300 mg/kg

**BUTANOL**  
**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
TLV	BGR	100		150			
TLV	CZE	300	97,5	600	195		
AGW	DEU	310	100	310	100		
MAK	DEU	310	100	310	100		
TLV	DNK			150 (C)	50 (C)	SKIN	
VLA	ESP	61	20	154	50		
VLEP	FRA			150	50		
TGG	NLD			45			
NDS/NDSch	POL	50		150		SKIN	
TLV	ROU	100	33	200	66		
NGV/KGV	SWE	45	15	90	30	SKIN	
WEL	GBR			154	50	SKIN	
TLV-ACGIH		61	20				

<b>Predicted no-effect concentration - PNEC</b>			
Normal value in fresh water		0,082	mg/l

**COMEC ITALIA SRL**

Revision nr. 4

Dated 06/12/2022

**PLT 15 METAL: 79-050,**

Printed on 06/12/2022

Page n. 11/25

Replaced revision:3 (Dated: 08/03/2021)

Normal value in marine water	0,0082	mg/l
Normal value for fresh water sediment	0,178	mg/kg
Normal value for marine water sediment	0,0178	mg/kg
Normal value for water, intermittent release	2,25	mg/l
Normal value of STP microorganisms	2476	mg/l
Normal value for the terrestrial compartment	0,015	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3125 mg/kg				
Inhalation			55 mg/m3	VND			310 mg/m3	VND

**UOP-L Paste**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
OEL	EU	1		RESP

**Traduci da: Indonesiano**

**Predicted no-effect concentration - PNEC**

Normal value in fresh water	0,0032	mg/l
Normal value in marine water	0,0032	mg/l
Normal value for fresh water sediment	15,6	mg/kg
Normal value for water, intermittent release	0,0032	mg/l
Normal value of STP microorganisms	35	mg/l
Normal value for the terrestrial compartment	0,865	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		1,3 mg/kg bw/d						
Inhalation				4,4 mg/m3				17,8 mg/m3
Skin				13 mg/kg bw/d				25,5 mg/kg bw/d

**Phthalic anhydride with less than 0,05% of maleic anhydride**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
TLV-ACGIH		1		

**HYDROM HYDROPHONE SILICATE**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
AGW	DEU	4		INHAL
MAK	DEU	4		INHAL

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

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

**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.

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	various	

Odour	ketonic
Melting point / freezing point	not available
Initial boiling point	> 125 °C
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	not available
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

VOC (Directive 2010/75/EU) 56,36 %

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

#### CYCLOHEXANONE

Attacks various types of plastic materials.

May condense under the effect of heat to form resinous compounds.

#### 4-HYDROXY-4-METHYLPENTAN-2-ONE

Decomposes at temperatures above 90°C/194°F.

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

Stable in normal conditions of use and storage.

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

#### BUTANOL

Attacks various types of plastic materials.

#### 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.

#### CYCLOHEXANONE

Risk of explosion on contact with: hydrogen peroxide,nitric acid,heat,mineral acids.May react violently with: oxidising agents.Forms explosive mixtures with: air.

#### 4-HYDROXY-4-METHYLPENTAN-2-ONE

Risk of explosion on contact with: air,sources of heat.May react dangerously with: alkaline metals,amines,oxidising agents,acids.

#### DIETHYLENE GLYCOL MONOETHYL ETHER

Forms explosive mixtures with: air.May react dangerously with: oxidising agents,aluminium.

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

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

#### BUTANOL

Reacts violently developing heat on contact with: aluminium,strong oxidising agents,strong reducing agents,hydrochloric acid.Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

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

#### CYCLOHEXANONE

Avoid exposure to: sources of heat,naked flames.

#### 4-HYDROXY-4-METHYLPENTAN-2-ONE

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

#### BUTANOL

Avoid exposure to: sources of heat,naked flames.

#### 10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE

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

**10.6. Hazardous decomposition products**

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

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

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

Hydrocarbons, C10, aromatics, <1% naphthalene

Specific target organ toxicity (STOT) - single exposure:

NOAEC > 600 mg / kg Inhalation. Rat

Metabolism, toxicokinetics, mechanism of action and other information

2-METHOXY-1-METHYLETHYL ACETATE

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

Information on likely routes of exposure

4-HYDROXY-4-METHYLPENTAN-2-ONE

WORKERS: inhalation; contact with the skin.

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

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

4-HYDROXY-4-METHYLPENTAN-2-ONE

Acute toxicity causes irritation of the eyes, nose and throat in humans at 100 ppm (476 mg/kg) and pulmonary disorders at 400 ppm. No chronic effects on humans have been reported. The substance may have a depressive effect on the respiratory centres and cause death from respiratory failure.

2-METHOXY-1-METHYLETHYL ACETATE

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

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

CYCLOHEXANONE

LD50 (Dermal):	1100 mg/kg 794 - 3160 / Coniglio / Rabbit
LD50 (Oral):	1535 mg/kg Ratto / Rat
LC50 (Inhalation vapours):	11 mg/l/4h Ratto / Rat (4h)

ALUMINIUM POWDER (STABILIZED)

LC50 (Inhalation mists/powders):	> 5 mg/l Ratto / Rat (4h)
----------------------------------	---------------------------

4-HYDROXY-4-METHYLPENTAN-2-ONE

LD50 (Dermal):	> 1875 mg/kg Ratto / Rat
LD50 (Oral):	3002 mg/kg Rat
LC50 (Inhalation vapours):	> 7,6 mg/l Ratto / Rat

DIETHYLENE GLYCOL MONOETHYL ETHER

LD50 (Dermal):	9143 mg/kg Coniglio / Rabbit
LD50 (Oral):	6031 mg/kg Topo / Mouse
LC50 (Inhalation vapours):	0,02 mg/l/8h Ratto / Rat

Hydrocarbons, C10, aromatics, <1% naphthalene

LD50 (Dermal):	> 2000 mg/kg Coniglio / Rabbit
LD50 (Oral):	6318 mg/kg Ratto / Rat
LC50 (Inhalation vapours):	> 4688 mg/kg/4h Ratto / Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Coniglio / Rabbit
LD50 (Oral):	8500 mg/kg Ratto / Rat
LC50 (Inhalation vapours):	4345 ppm/6h Ratto / Rat

AROMATIC HYDROCARBONS, C9

LD50 (Dermal):	> 3160 mg/kg Ratto / Rat
LD50 (Oral):	3492 mg/kg Ratto / Rat
LC50 (Inhalation vapours):	> 6193 mg/l/4h Ratto / Rat



**NAPHTHA (PETROL.) HYDROTREATED HEAVY**

LD50 (Dermal): > 2000 mg/kg Rabbit  
LD50 (Oral): > 5000 mg/kg Rat

**BUTANOL**

LD50 (Dermal): 3400 mg/kg Rabbit  
LD50 (Oral): 2290 mg/kg Rat  
STA (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)  
LC50 (Inhalation vapours): 17,76 mg/l/4h Rat

**SKIN CORROSION / IRRITATION**

Causes skin irritation

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage

**RESPIRATORY OR SKIN SENSITISATION**

Does not meet the classification criteria for this hazard class

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class

**STOT - SINGLE EXPOSURE**

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

**11.2. Information on other hazards**

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

**SECTION 12. Ecological information**

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

**12.1. Toxicity**

Hydrocarbons, C10, aromatics, <1%

naphtalene

LC50 - for Fish > 2 mg/l/96h

EC50 - for Crustacea > 3 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 1 mg/l/72h

AROMATIC HYDROCARBONS, C9

LC50 - for Fish > 9,2 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea > 3,2 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 2,9 mg/l/72h Pseudokirchneriella subcapitata

DIETHYLENE GLYCOL MONOETHYL

ETHER

LC50 - for Fish 6010 mg/l/96h Pesce OECD 203

EC50 - for Crustacea 1982 mg/l/48h Daphnia magna OECD 202

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish 134 mg/l/96h Pesce, Oncorhynchus mykiss OECD 203

EC50 - for Crustacea > 500 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 1000 mg/l/72h Selenastrum capricornutum OECD 201

Chronic NOEC for Fish 47,5 mg/l Oryzias latipes 14 gg OECD 204

Chronic NOEC for Crustacea 100 mg/l Daphnia magna 21 gg OECD 202

BUTANOL

LC50 - for Fish	1376 mg/l/96h Pimephales promelas
EC50 - for Crustacea	1328 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	225 mg/l/96h 96h - Selenastrum capricornutum

4-HYDROXY-4-METHYLPENTAN-2-ONE

LC50 - for Fish	> 100 mg/l/96h Oryzias latipes
EC50 - for Crustacea	> 1000 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	< 1000 mg/l/72h Pseudokirchneriella subcapitata

CYCLOHEXANONE

LC50 - for Fish	527 mg/l/96h 527 - 732 / Pimephales promelas
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h Scenedesmus subspicatus

NAPHTHA (PETROL.) HYDROTREATED HEAVY

LC50 - for Fish	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	> 1000 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability

Hydrocarbons, C10, aromatics, <1% naphthalene

Solubility in water immiscibile in H2O mg/l

Rapidly degradable

AROMATIC HYDROCARBONS, C9

Rapidly degradable

ALUMINIUM POWDER (STABILIZED)

Solubility in water

0 mg/l

Degradability: information not available

DIETHYLENE GLYCOL MONOETHYL ETHER

Solubility in water 1000 g/l Completamente solubile

Rapidly degradable

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water

> 10000 mg/l

Rapidly degradable

OECD Gl 301F 83% 10 d

BUTANOL

Solubility in water

78 mg/l

Rapidly degradable

4-HYDROXY-4-METHYLPENTAN-2-ONE

Solubility in water

1000 - 10000 mg/l

Rapidly degradable

AFNOR T 90-312 70% 10 d

CYCLOHEXANONE

Solubility in water

86 mg/l

Rapidly degradable

NAPHTHA (PETROL.) HYDROTREATED  
HEAVY

Rapidly degradable

**12.3. Bioaccumulative potential**

DIETHYLENE GLYCOL MONOETHYL  
ETHER

Partition coefficient: n-octanol/water -0,54 misurato

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: n-octanol/water 1,2

BCF 100

BUTANOL

Partition coefficient: n-octanol/water 1

BCF 3,16

4-HYDROXY-4-METHYLPENTAN-2-ONE

Partition coefficient: n-octanol/water -0,09

CYCLOHEXANONE

Partition coefficient: n-octanol/water 0,86

**12.4. Mobility in soil**

DIETHYLENE GLYCOL MONOETHYL  
ETHER

Partition coefficient: soil/water 20 stimato

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: soil/water 1,7

BUTANOL

Partition coefficient: soil/water 0,388

CYCLOHEXANONE

Partition coefficient: soil/water 1,18

NAPHTHA (PETROL.) HYDROTREATED  
HEAVY

Partition coefficient: soil/water 1,78

**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.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

**SECTION 14. Transport information**

**14.1. UN number or ID number**

ADR / RID, IMDG, IATA: 1210

**14.2. UN proper shipping name**

ADR / RID: PRINTING INK or PRINTING INK RELATED MATERIAL

IMDG: PRINTING INK or PRINTING INK RELATED MATERIAL

IATA: PRINTING INK or PRINTING INK RELATED MATERIAL

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

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



**14.4. Packing group**

ADR / RID, IMDG, IATA: III

**14.5. Environmental hazards**

ADR / RID: NO

IMDG: NO

IATA: NO

**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: 30	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special provision: 163, 367		
IMDG:	EMS: F-E, S-D	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Pass.:	Maximum quantity: 60 L	Packaging instructions: 355
	Special provision:	A3, A72, A192	

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

Information not relevant

**SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: P5c

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

Product  
Point 3 - 40

Contained substance  
Point 75

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

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

### 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:

<b>Flam. Liq. 3</b>	Flammable liquid, category 3
<b>Flam. Sol. 1</b>	Flammable solid, category 1
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>Aquatic Chronic 3</b>	Hazardous to the aquatic environment, chronic toxicity, category 3
<b>H226</b>	Flammable liquid and vapour.
<b>H228</b>	Flammable solid.
<b>H302</b>	Harmful if swallowed.
<b>H312</b>	Harmful in contact with skin.
<b>H332</b>	Harmful if inhaled.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H318</b>	Causes serious eye damage.
<b>H319</b>	Causes serious eye irritation.
<b>H315</b>	Causes skin irritation.
<b>H335</b>	May cause respiratory irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>H412</b>	Harmful to aquatic life with long lasting effects.
<b>EUH066</b>	Repeated exposure may cause skin dryness or cracking.

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number

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

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
  4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2019/521 (XII Atp. CLP)
  16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
  17. Regulation (EU) 2019/1148
  18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
  19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
  20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
  21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
  22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

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



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

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

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

#### CALCULATION METHODS FOR CLASSIFICATION

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

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

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

For information on any exposure scenarios of the substances present in the mixture, contact Sericom Italia srl.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 11 / 12 / 14 / 15 / 16.