Safety Data Sheet

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

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

1.1. Product identifier

Code: **CK272710001**
Product name **KRAFT RUST BLOCKER White**

UFI : **QX20-F0QW-A009-A42U**

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

Intended use **Anticorrosive primer for metallic surfaces**

1.3. Details of the supplier of the safety data sheet

Name **DRUCKFARBEN HELLAS SA**
Full address **MEGARIDOS AVENUE**
District and Country **19300 ASPROPYRGOS (ATTIKI)**
GREECE
Tel. +30 210 5519500
Fax +30 210 5519501

e-mail address of the competent person responsible for the Safety Data Sheet **psafety@druckfarben.gr**

1.4. Emergency telephone number

For urgent inquiries refer to **0030-210-7793777**

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.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
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: Danger

Hazard statements:
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.

SECTION 2. Hazards identification ... / >>

H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic 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.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P301+P310	IF SWALLOWED: immediately call a POISON CENTER or a doctor
P370+P378	In case of fire: use alcohol resistant foam to extinguish.
P273	Avoid release to the environment.
P102	Keep out of reach of children.
P271	Use only outdoors or in a well-ventilated area.

Contains: Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Reaction mass of Ethylbenzene and Xylene
Xylene (mixture of isomers)

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification (EC) 1272/2008 (CLP)**
TITANIUM DIOXIDE			
INDEX		9 ≤ x < 30	
EC	*236-675-5*		
CAS	*13463-67-7*		
REACH Reg.	*01-2119489379-17-0000*	*01-2119489379-17-0197*	
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
INDEX	*649-327-00-6*	10 ≤ x < 20	**Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066, Classification note according to Annex VI to the CLP Regulation: P**
EC	*919-857-5*		
CAS	*64742-48-9*		
REACH Reg.	*01-21119463258-33*		
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
INDEX	*649-327-00-6*	10 ≤ x < 20	**Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066, Classification note according to Annex VI to the CLP Regulation: P**
EC	*919-857-5*		
CAS	*64742-48-9*		
REACH Reg.	*01-2119463258-33-xxxx*		
Reaction mass of Ethylbenzene and Xylene			
INDEX		1 ≤ x < 5	**Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC	*905-588-0*		**STA Dermal: 1100 mg/kg, STA Inhalation mists/powders: 1,5 mg/l, STA Inhalation vapours: 11 mg/l**
CAS			
REACH Reg.	*01-2119486136-34*	*01-2119539452-40*	*01-2119539452-40-0055*
Tri-Zinc Bis(Orthophosphate)			
INDEX	*030-011-00-6*	1 ≤ x < 2,5	**Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*231-944-3*		
CAS	*7779-90-0*		
REACH Reg.	*01-2119485044-40-0000*	*01-2119485044-40-0001*	
Xylene (ortho-)			
INDEX	*601-022-00-9*	1 ≤ x < 5	**Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C**
EC	*202-422-2*		**LD50 Dermal: >1700 mg/kg, STA Inhalation vapours: 11 mg/l**

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

CAS	*95-47-6*		
REACH Reg.	*01-2119488216*		
Xylene (mixture of isomers)			
INDEX	*601-022-00-9*	1 ≤ x < 5	**Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Classification note according to Annex VI to the CLP Regulation: C**
EC	*215-535-7*		**LD50 Dermal: >1700 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS	*1330-20-7*		
REACH Reg.	*01-2119488216-32*		
Xylene			
INDEX	*601-022-00-9*	0 ≤ x < 0,5	**Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C**
EC	*215-535-7*		**STA Dermal: 1100 mg/kg, STA Inhalation vapours: 11 mg/l**
CAS	*1330-20-7*		
REACH Reg.	*01-2119488216-32*		
N-BUTYL ACETATE			
INDEX	*607-025-00-1*	0 ≤ x < 0,5	**Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
EC	*204-658-1*		
CAS	*123-86-4*		
Zinc Oxide			
INDEX	*030-013-00-7*	0 ≤ x < 0,25	**Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*215-222-5*		
CAS	*1314-13-2*		
REACH Reg.	*01-2119463881-32*		
BTC Methoxy Propyl Acetate (MPA)			
INDEX	*607-195-00-7*	0 ≤ x < 0,5	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*203-603-9*		
CAS	*108-65-6*		
REACH Reg.	*01-2119475791-29-00XX*		
BASF n-Butyl Acetate			
INDEX	*607-025-00-1*	0 ≤ x < 0,5	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*204-658-1*		
CAS	*123-86-4*		
REACH Reg.	*01-2119485493-29-0XXX*		
Phthalic Anhydride			
INDEX	*607-009-00-4*	0 ≤ x < 0,5	**Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, Resp. Sens. 1 H334, Skin Sens. 1 H317**
EC	*201-607-5*		**STA Oral: 500 mg/kg**
CAS	*85-44-9*		
REACH Reg.	*01-2119457017-41*		
Acetone			
INDEX	*606-001-00-8*	0 ≤ x < 0,5	**Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066**
EC	*200-662-2*		
CAS	*67-64-1*		
REACH Reg.	*01-2119471330-49-0003*		
Ethylbenzene			
INDEX	*601-023-00-4*	0 ≤ x < 0,5	**Flam. Liq. 2 H225, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373**
EC	*202-849-4*		**LC50 Inhalation vapours: 17,2 mg/l/4h**
CAS	*100-41-4*		
2,6-di-tert-butyl-p-cresol			
INDEX		0 ≤ x < 0,25	**Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*204-881-4*		
CAS	*128-37-0*		
REACH Reg.	*01-2119565113-46*		

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.

SECTION 4. First aid measures ... / >>

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

SECTION 7. Handling and storage ... / >>

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.)
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
GRC	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ''σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία''»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

Phthalic Anhydride

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	6	1	6	1	

Predicted no-effect concentration - PNEC

Normal value in fresh water	5,6	mg/l
Normal value for fresh water sediment	0,02826	mg/kg
Normal value of STP microorganisms	10	mg/l

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	5 mg/kg/day				
Inhalation			VND	8,6 mg/kg/day			VND	32,2 mg/kg/day
Skin			VND	5 mg/kg/day				

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

2,6-di-tert-butyl-p-cresol

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	10				

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0002	mg/l
Normal value in marine water	0,00002	mg/l

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	3,5 mg/kg bw/d
Skin							VND	0,5 mg/kg bw/d

Xylene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	221	50	442	100	SKIN
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
TLV	GRC	435	100	650	150	
VLEP	ITA	221	50	442	100	SKIN
TLV	ROU	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Tri-Zinc Bis(Orthophosphate)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	2		4		INHAL
MAK	DEU	0,1		0,4		RESP

Zinc Oxide

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	5		10		като цинк
MAK	DEU	2		4		INHAL
MAK	DEU	0,1		0,4		RESP
TLV	GRC	5		10		
TLV	ROU	5		10		Fumuri
TLV-ACGIH		2		10		RESP

Acetone

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	600		1400		
AGW	DEU	1200	500	2400 (C)	1000 (C)	
MAK	DEU	1200	500	2400	1000	
TLV	GRC	1780		3560		
VLEP	ITA	1210	500			
TLV	ROU	1210	500			
WEL	GBR	1210	500	3620	1500	
OEL	EU	1210	500			
TLV-ACGIH			250		500	

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

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	GRC	1200				

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	300 mg/kg/d				
Inhalation			VND	900 mg/m3	VND	1500 mg/m3		
Skin			VND	300 mg/kg/d			VND	300 mg/kg/d

Xylene (ortho-)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU		100		200	
TLV	GRC	435	100	650	150	
WEL	GBR		50		100	
OEL	EU	221	50	442	100	
TLV-ACGIH			100		150	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	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			VND	1,6 mg/kg/d				
Inhalation	174 mg/m3	174 mg/m3	VND	14,8 mg/m3	289 mg/m3	289 mg/m3	VND	77 mg/m3
Skin			VND	108 mg/kg/d			VND	180 mg/kg/d

Xylene (mixture of isomers)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU		100		200	
TLV	GRC	435	100	650	150	
WEL	GBR		50		100	
OEL	EU	221	50	442	100	
TLV-ACGIH			100		150	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	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			VND	1,6 mg/kg/d				
Inhalation	174 mg/m3	174 mg/m3	VND	14,8 mg/m3	289 mg/m3	289 mg/m3	VND	77 mg/m3
Skin			VND	108 mg/kg/d			VND	180 mg/kg/d

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

BASF n-Butyl 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
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
TLV	GRC	275	50	550	100	
VLEP	ITA	275	50	550	100	SKIN
TLV	ROU	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	ml/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l

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	1,67 mg/kg				
Inhalation			VND	33 mg/m3	553,5 mg/m3	VND	VND	275 mg/m3
Skin			VND	54,8 mg/kg			VND	153,5 mg/kg

BTC Methoxy Propyl Acetate (MPA)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	275	50	550	100	SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
TLV	GRC	275	50	550	100	
VLEP	ITA	275	50	550	100	SKIN
TLV	ROU	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	ml/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l

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	1,67 mg/kg				
Inhalation			VND	33 mg/m3	553,5 mg/m3	VND	VND	275 mg/m3
Skin			VND	54,8 mg/kg			VND	153,5 mg/kg

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

TITANIUM DIOXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	10				RESP
TLV	GRC		10			
TLV	ROU	10		15		
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		2,5				RESP

Ethylbenzene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	435		545		SKIN
AGW	DEU	88	20	176	40	SKIN
MAK	DEU	88	20	176	40	SKIN
TLV	GRC	435	100	545	125	
VLEP	ITA	442	100	884	200	SKIN
TLV	ROU	442	100	884	200	SKIN
WEL	GBR	441	100	552	125	SKIN
OEL	EU	442	100	884	200	SKIN
TLV-ACGIH		87	20			

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	710		950		
AGW	DEU	300	62	600 (C)	124 (C)	
TLV	GRC	710	150	950	200	
VLEP	ITA	241	50	723	150	
TLV	ROU	241	50	723	150	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	GRC	1200				

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	300 mg/kg/d				
Inhalation			VND	900 mg/m3	VND	1500 mg/m3		
Skin			VND	300 mg/kg/d			VND	300 mg/kg/d

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

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

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

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, 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	white		
Odour	characteristic		
Melting point / freezing point	not available		
Initial boiling point	not available		
Flammability	not available		
Lower explosive limit	not available		
Upper explosive limit	not available		
Flash point	23 ≤ T ≤ 60	°C	
Auto-ignition temperature	not available		
Decomposition temperature	not available		
pH	not available		Reason for missing data:substance/mixture is non-soluble (in water)
Kinematic viscosity	520-1840 mm2/s		Method:Converting Formula from Dynamic Viscosity & Density Temperature: 25 °C
Dynamic viscosity	75-105 KU		Method:ASTM D 562-05 Temperature: 25 °C
Solubility	not available		
Partition coefficient: n-octanol/water	not available		
Vapour pressure	not available		
Density and/or relative density	1,25-1,38	g/cm3	Method:ISO 2811 Temperature: 25 °C
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

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

Total solids (250°C / 482°F) 71,40 %

SECTION 10. Stability and reactivity

10.1. Reactivity

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

Acetone
Decomposes under the effect of heat.
BASF n-Butyl Acetate
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

BTC Methoxy Propyl Acetate (MPA)
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

N-BUTYL ACETATE
Decomposes on contact with: water.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

Xylene
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.
Acetone
Risk of explosion on contact with: bromine trifluoride,fluorine dioxide,hydrogen peroxide,nitrosyl chloride,2-methyl-1,3 butadiene,nitromethane,nitrosyl perchlorate.May react dangerously with: potassium tert-butoxide,alkaline hydroxides,bromine,bromoform,isoprene,sodium,sulphur dioxide,chromium trioxide,chromyl chloride,nitric acid,chloroform,peroxymonosulphuric acid,phosphoryl oxychloride,chromosulphuric acid,fluorine,strong oxidising agents,strong reducing agents.Develops flammable gas on contact with: nitrosyl perchlorate.
Xylene (ortho-)
XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.

Xylene (mixture of isomers)
XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.

BASF n-Butyl Acetate
May react violently with: oxidising substances,strong acids,alkaline metals.
BTC Methoxy Propyl Acetate (MPA)
May react violently with: oxidising substances,strong acids,alkaline metals.
Ethylbenzene
Reacts violently with: strong oxidants.Attacks various types of plastic materials.May form explosive mixtures with: air.
N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides,potassium tert-butoxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

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

Acetone
Avoid exposure to: sources of heat,naked flames.
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Avoid exposure to: heat.
Keep away from: oxidising agents.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Avoid exposure to: heat.
Keep away from: oxidising agents.

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

10.5. Incompatible materials

Acetone
Incompatible with: acids,oxidising substances.
BASF n-Butyl Acetate
Incompatible with: oxidising substances,strong acids,alkaline metals.
BTC Methoxy Propyl Acetate (MPA)
Incompatible with: oxidising substances,strong acids,alkaline metals.
N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

10.6. Hazardous decomposition products

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

Acetone
May develop: ketenes,irritant substances.
Ethylbenzene
May develop: methane,styrene,hydrogen,ethane.

SECTION 11. Toxicological information

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

Xylene (ortho-)
XYLENE (MIXTURE OF ISOMERS): has a toxic effect on the CNS (encephalopathies). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.

Xylene (mixture of isomers)
XYLENE (MIXTURE OF ISOMERS): has a toxic effect on the CNS (encephalopathies). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.

Metabolism, toxicokinetics, mechanism of action and other information

BASF n-Butyl 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.

BTC Methoxy Propyl Acetate (MPA)
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

Xylene
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

BASF n-Butyl Acetate
WORKERS: inhalation; contact with the skin.

BTC Methoxy Propyl Acetate (MPA)
WORKERS: inhalation; contact with the skin.

Ethylbenzene
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

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

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

Xylene
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

BASF n-Butyl 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).

SECTION 11. Toxicological information ... / >>

BTC Methoxy Propyl Acetate (MPA)
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).

Ethylbenzene
As the counterparts of benzene, may have an acute effect on the central nervous system, with depression, narcosis, often preceded by dizziness and associated with headache (Ispesl). Is irritating for skin, conjunctiva and respiratory tract.

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

Interactive effects

Xylene
Intake of alcohol interferes with the metabolism of the substance, inhibiting it. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.

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

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	> 5 mg/l
ATE (Inhalation - vapours) of the mixture:	> 20 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	>2000 mg/kg

Reaction mass of Ethylbenzene and Xylene

STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
STA (Inhalation mists/powders):	1,5 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

Xylene

LD50 (Dermal):	4350 mg/kg Rabbit
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	26 mg/l/4h Rat

Tri-Zinc Bis(Orthophosphate)

LD50 (Oral):	> 5000 mg/kg Rat - Wistar
LC50 (Inhalation mists/powders):	> 5,7 mg/l Rat

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation vapours):	> 20 mg/l/4h Rat

Xylene (ortho-)

LD50 (Dermal):	> 1700 mg/kg Rabbit
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	5000 ppm/4h Rat
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SECTION 11. Toxicological information ... / >>

Xylene (mixture of isomers)

LD50 (Dermal):	> 1700 mg/kg Rabbit
LD50 (Oral):	3523 mg/kg Rat
LC50 (Inhalation vapours):	5000 ppm/4h Rat
STA (Inhalation vapours):	11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

BASF n-Butyl Acetate

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	8530 mg/kg Rat
LC50 (Inhalation vapours):	> 25,8 mg/l Rat

BTC Methoxy Propyl Acetate (MPA)

LD50 (Dermal):	> 5000 mg/kg Rat
LD50 (Oral):	8530 mg/kg Rat
LC50 (Inhalation vapours):	> 25,8 mg/l Rat

TITANIUM DIOXIDE

LD50 (Oral):	> 10000 mg/kg Rat

Ethylbenzene

LD50 (Dermal):	15354 mg/kg Rabbit
LD50 (Oral):	3500 mg/kg Rat
LC50 (Inhalation vapours):	17,2 mg/l/4h Rat

N-BUTYL ACETATE

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 6400 mg/kg Rat
LC50 (Inhalation vapours):	21,1 mg/l/4h Rat

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation vapours):	> 20 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

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

Xylene
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

Ethylbenzene
Classified in Group 2B (possible human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 2000).
Classified in Group D (not classifiable as a human carcinogen) by the US Environmental Protection Agency (EPA) - (US EPA file on-line 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

SECTION 11. Toxicological information ... / >>

May cause drowsiness or dizziness

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 is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Tri-Zinc Bis(Orthophosphate)

LC50 - for Fish	0,78 mg/l/96h Pimephales promelas
EC50 - for Crustacea	0,86 mg/l/48h Daphnia magna

Zinc Oxide

LC50 - for Fish	1,1 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	1,7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0,14 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	0,53 mg/l
Chronic NOEC for Algae / Aquatic Plants	0,024 mg/l

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LC50 - for Fish	> 100 mg/l/96h Fish / Aquatic Invertebrates / Algae / Microorganisms
EC50 - for Crustacea	> 100 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Fish	> 0,1 mg/l
Chronic NOEC for Crustacea	> 0,1 mg/l

Xylene (ortho-)

LC50 - for Fish	> 100 mg/l/96h Microorganisms

Xylene (mixture of isomers)

LC50 - for Fish	> 100 mg/l/96h Microorganisms

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

LC50 - for Fish	> 100 mg/l/96h Fish / Aquatic Invertebrates / Algae / Microorganisms
EC50 - for Crustacea	> 100 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h
Chronic NOEC for Fish	> 0,1 mg/l
Chronic NOEC for Crustacea	> 0,1 mg/l

12.2. Persistence and degradability

2,6-di-tert-butyl-p-cresol
Degradability: information not available

Xylene

Solubility in water	100 - 1000 mg/l

Rapidly degradable

Tri-Zinc Bis(Orthophosphate)

Solubility in water	2,7 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

Zinc Oxide
Solubility in water 2,9 mg/l
NOT rapidly degradable

Acetone
Rapidly degradable

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Rapidly degradable

Xylene (ortho-)
Rapidly degradable

Xylene (mixture of isomers)
Rapidly degradable

BASF n-Butyl Acetate
Solubility in water > 10000 mg/l
Rapidly degradable

BTC Methoxy Propyl Acetate (MPA)
Solubility in water > 10000 mg/l
Rapidly degradable

TITANIUM DIOXIDE
Solubility in water < 0,001 mg/l
Degradability: information not available

Ethylbenzene
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

N-BUTYL ACETATE
Solubility in water 1000 - 10000 mg/l

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
Rapidly degradable

12.3. Bioaccumulative potential

2,6-di-tert-butyl-p-cresol
Partition coefficient: n-octanol/water 5,1 Log Kow
BCF < 1800

Xylene
Partition coefficient: n-octanol/water 3,12
BCF 25,9

Zinc Oxide
BCF > 175

Acetone
Partition coefficient: n-octanol/water -0,23
BCF 3

BASF n-Butyl Acetate
Partition coefficient: n-octanol/water 1,2

BTC Methoxy Propyl Acetate (MPA)
Partition coefficient: n-octanol/water 1,2

Ethylbenzene
Partition coefficient: n-octanol/water 3,6

N-BUTYL ACETATE
Partition coefficient: n-octanol/water 2,3
BCF 15,3

SECTION 12. Ecological information ... / >>

12.4. Mobility in soil

Xylene
Partition coefficient: soil/water 2,73

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

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ 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: 1263

14.2. UN proper shipping name

ADR / RID: PAINT or PAINT RELATED MATERIAL
IMDG: PAINT or PAINT RELATED MATERIAL
IATA: PAINT or PAINT 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

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 30 Special provision: 163, 367, 650	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 220 L	Packaging instructions: 366
	Passengers:	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-E2

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

Product

Point 3 - 40

Contained substance

Point 75

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

not applicable

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

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. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic 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

SECTION 16. Other information ... / >>

- 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.