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: **4110023020**
Product name **Nitro diluent for washing**
UFI : **6H60-E059-800T-XHJ2**

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

Intended use **Diluting-solvent for professional and industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Meccanocar Italia S.r.l.**
Full address **Via San Francesco, 22**
District and Country **56033 Capannoli (PI)**
Italy

Tel. +39 0587 609433

Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet **mec@meccanocar.it**
Supplier:

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service: +44 121 507 4123**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Reproductive toxicity, category 2	H361d	Suspected of damaging the unborn child.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, category 2	H371	May cause damage to organs.
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:

H225	Highly flammable liquid and vapour.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H371	May cause damage to organs.
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.
P261	Avoid breathing dust / fume / gas / mist / vapours / spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P301+P310	IF SWALLOWED: Immediately contact a POISON CENTER / doctor.
P331	Do NOT induce vomiting.
P370+P378	In case of fire: use CO2 extinguisher to extinguish.

Contains: DICHLOROMETHANE
TOLUENE

METHYL ACETATE
METHANOL

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)
TOLUENE		
INDEX 601-021-00-3	22,5 ≤ x < 24	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 3 H412
EC 203-625-9		
CAS 108-88-3		
REACH Reg. 01-2119471310-51-XXXX		
METHYL ACETATE		
INDEX 607-021-00-X	21 ≤ x < 22,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-185-2		
CAS 79-20-9		
REACH Reg. 01-2119459211-47-XXXX		
ACETONE		
INDEX 606-001-00-8	15 ≤ x < 16,5	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-XXXX		
ETHYL ACETATE		
INDEX 607-022-00-5	13,5 ≤ x < 15	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 205-500-4		
CAS 141-78-6		
REACH Reg. 01-2119475103-46-XXXX		
2-Metilpentano		
INDEX 601-007-00-7	8,5 ≤ x < 10	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: C
EC 203-523-4		
CAS 107-83-5		
METHANOL		
INDEX 603-001-00-X	3 ≤ x < 3,5	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370

EC 200-659-6		STOT SE 2 H371: ≥ 3% - < 10%
CAS 67-56-1		ATE Oral: 100 mg/kg, ATE Dermal: 300 mg/kg, ATE Inhalation vapours: 3 mg/l
REACH Reg. 01-2119392409-28-XXXX		
Mixture of isomers of Esano		
INDEX 601-007-00-7	3 ≤ x < 3,5	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: C
EC 201-193-6		
CAS 79-29-8		
DICHLOROMETHANE		
INDEX 602-004-00-3	2,5 ≤ x < 3	Carc. 2 H351
EC 200-838-9		
CAS 75-09-2		
REACH Reg. 01-2119480404-41-XXXX		
ETHANOL		
INDEX 603-002-00-5	1,5 ≤ x < 2	Flam. Liq. 2 H225, Eye Irrit. 2 H319
EC 200-578-6		
CAS 64-17-5		
REACH Reg. 01-2119457610-43-XXXX		
Metilformiato		
INDEX 607-014-00-1	0,6 ≤ x < 0,7	Flam. Liq. 1 H224, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370, Eye Irrit. 2 H319, STOT SE 3 H335
EC 203-481-7		ATE Oral: 100 mg/kg, ATE Dermal: 300 mg/kg, ATE Inhalation mists/powders: 0,501 mg/l
CAS 107-31-3		
TETRAHYDROFURAN		
INDEX 603-025-00-0	0,5 ≤ x < 0,6	Flam. Liq. 2 H225, Carc. 2 H351, Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, STOT SE 3 H336, EUH019
EC 203-726-8		Eye Irrit. 2 H319: ≥ 25%, STOT SE 3 H335: ≥ 25%
CAS 109-99-9		LD50 Oral: 1650 mg/kg
Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano		
INDEX -	0,4045 ≤ x < 0,4545	Flam. Liq. 2 H225, Repr. 2 H361f, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
EC 925-292-5		
CAS 92112-69-1		
REACH Reg. 01-2119474209-33-XXXX		
HEPTANE		
INDEX 601-008-00-2	0,25 ≤ x < 0,3	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: C
EC 205-563-8		
CAS 142-82-5		
CYCLOHEXANE		
INDEX 601-017-00-1	0,2 ≤ x < 0,25	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 203-806-2		
CAS 110-82-7		
REACH Reg. 01-2119463273-41-XXXX		

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

SECTION 4. First aid measures

4.1. Description of first aid measures

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

Rescuer protection

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

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

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

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

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

If symptoms occur, whether acute or delayed, consult a doctor.

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

Running water for skin and eye wash.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and 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
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
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

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU		Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
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
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 2023

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
VLEP	ITA	192	50			SKIN
RD	LTU	192	50	384	100	SKIN
TLV	NOR	94	25			SKIN
VLE	PRT	192	50	384	100	SKIN
NDS/NDSCh	POL	100		200		SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg
Normal value for marine water sediment	16,39	mg/kg
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	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				8,13 mg/kg bw/d				
Inhalation	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin				226 mg/kg bw/d				384 mg/kg bw/d

METHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	616	200	770	250	
VLEP	FRA	610	200	760	250	SKIN
RD	LTU	450	150	900	300	
TLV	NOR	305	100			
NDS/NDSCh	POL	250		600		
WEL	GBR	616	200	770	250	
TLV-ACGIH		606	200	757	250	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,12	mg/l
Normal value in marine water	0,012	mg/l
Normal value for fresh water sediment	0,128	mg/kg
Normal value for marine water sediment	0,013	mg/kg
Normal value of STP microorganisms	600	mg/l
Normal value for the food chain (secondary poisoning)	20,4	mg/kg
Normal value for the terrestrial compartment	0,042	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				44 mg/kg bw/d				
Inhalation			152 mg/m3	131 mg/m3			305 mg/m3	610 mg/m3
Skin				44 mg/kg bw/d				88 mg/kg bw/d

ACETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	1210	500	2420	1000	
VLEP	ITA	1210	500			
RD	LTU	1210	500	2420	1000	
TLV	NOR	295	125			
VLE	PRT	1210	500			
NDS/NDSCh	POL	600		1800		
WEL	GBR	1210	500	3620	1500	

OEL	EU	1210	500		
TLV-ACGIH			250	500	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	10,6	mg/l
Normal value in marine water	1,06	mg/l
Normal value for fresh water sediment	30,4	mg/kg
Normal value for marine water sediment	3,04	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	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				62 mg/kg bw/d				
Inhalation				200 mg/m3			2420 mg/m3	1210 mg/m3
Skin				62 mg/kg bw/d				186 mg/kg bw/d

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	734	200	1468	400	
VLEP	FRA	1400	400			
VLEP	ITA	734	200	1468	400	
RD	LTU	500	150	1100 (C)	300 (C)	
TLV	NOR	734	200			
VLE	PRT	734	200	1468	400	
NDS/NDSCh	POL	734		1468		
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	1,15	mg/kg
Normal value for marine water sediment	0,115	mg/kg
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	0,2	mg/kg
Normal value for the terrestrial compartment	0,148	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				4,5 mg/kg bw/d				
Inhalation	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3

Skin	37 mg/kg bw/d	63 mg/kg bw/d

2-Metilpentano

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	1790	500	3580	1000		
VLEP	FRA	1800	500				
RD	LTU	700	200				
TLV	NOR	1050	250				
TLV-ACGIH		1762	500	3525	1000		

Mixture of isomers of Esano

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	1790	500	3580	1000		
VLEP	FRA	1800	500				
RD	LTU	700	200				
TLV	NOR	1050	250				
TLV-ACGIH		1762	500	3525	1000		

METHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP	266	200			SKIN	
VLEP	FRA	260	200	1300	1000	SKIN	11
VLEP	ITA	260	200			SKIN	
RD	LTU	260	200			SKIN	
TLV	NOR	130	100			SKIN	
VLE	PRT	260	200			SKIN	
NDS/NDSCh	POL	100		300		SKIN	
WEL	GBR	266	200	333	250	SKIN	
OEL	EU	260	200				
TLV-ACGIH		262	200	328	250	SKIN	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	20,8	mg/l
Normal value in marine water	2,08	mg/l
Normal value for fresh water sediment	77	mg/kg
Normal value for marine water sediment	7,7	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	100	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		4 mg/kg bw/d		4 mg/kg bw/d				
Inhalation	26 mg/m3	26 mg/m3	26 mg/m3	26 mg/m3	130 mg/m3	130 mg/m3	130 mg/m3	130 mg/m3
Skin		4 mg/kg bw/d		4 mg/kg bw/d		20 mg/kg bw/d		20 mg/kg bw/d

DICHLOROMETHANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	177	50	353	100	SKIN
VLEP	FRA	178	50	356	100	SKIN
VLEP	ITA	175	50	353	100	SKIN
RD	LTU	120	35	250	70	SKIN
TLV	NOR	50	15	150	45	SKIN
VLE	PRT	353	100	706	200	SKIN
NDS/NDSCh	POL	88		353		SKIN
WEL	GBR	353	100	706	200	SKIN
OEL	EU	353	100	706	200	SKIN
TLV-ACGIH		174	50			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,31	mg/l
Normal value in marine water	0,031	mg/l
Normal value for fresh water sediment	2,57	mg/kg
Normal value for marine water sediment	0,26	mg/kg
Normal value of STP microorganisms	26	mg/l
Normal value for the terrestrial compartment	0,33	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				0,06 mg/kg bw/d				
Inhalation		353 mg/m3		88,3 mg/m3		706 mg/m3		353 mg/m3
Skin				5,82 mg/kg bw/d				12 mg/kg bw/d

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP			1910	1000	
VLEP	FRA	1900	1000	9500	5000	
RD	LTU	1000	500	1900	1000	
TLV	NOR	950	500			
NDS/NDSCh	POL	1900				
WEL	GBR	1920	1000			

TLV-ACGIH	1884	1000

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for marine water sediment	2,9	mg/kg
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	0,38	mg/kg
Normal value for the terrestrial compartment	0,63	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				87 mg/kg bw/d				
Inhalation				114 mg/m3				950 mg/m3
Skin				206 mg/kg bw/d				343 mg/kg bw/d

TETRAHYDROFURAN

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	150	50	300	100	SKIN
VLEP	FRA	150	50	300	100	SKIN
VLEP	ITA	150	50	300	100	SKIN
RD	LTU	150	50	300	100	SKIN
TLV	NOR	150	50			SKIN
VLE	PRT	150	50	300	100	SKIN
NDS/NDSCh	POL	150		300		SKIN
WEL	GBR	150	50	300	100	SKIN
OEL	EU	150	50	300	100	SKIN
TLV-ACGIH		147	50	295	100	SKIN

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

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				6 mg/kg bw/d				
Inhalation				20 mg/m3				93 mg/m3
Skin				7 mg/kg bw/d				13 mg/kg bw/d

HEPTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2085	500			Como n-Eptano

VLEP	FRA	1668	400	2085	500
VLEP	ITA	2085	500		
RD	LTU	2085	500	3128	750
TLV	NOR	800	200		
VLE	PRT	2085	500		
NDS/NDSCh	POL	1200		2000	
WEL	GBR	2085	500		
OEL	EU	2085	500		
TLV-ACGIH		1639	400	2049	500

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				149 mg/kg bw/d				
Inhalation				447 mg/m3				2085 mg/m3
Skin				149 mg/kg bw/d				300 mg/kg bw/d

CYCLOHEXANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	700	200			
VLEP	FRA	700	200	1300	375	11
VLEP	ITA	350	100			
RD	LTU	700	200			
TLV	NOR	525	150			
VLE	PRT	700	200			
NDS/NDSCh	POL	300		1000		SKIN
WEL	GBR	350	100	1050	300	
OEL	EU	700	200			
TLV-ACGIH		344	100			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,207	mg/l
Normal value in marine water	0,207	mg/l
Normal value for fresh water sediment	16,68	mg/kg
Normal value for marine water sediment	16,68	mg/kg
Normal value of STP microorganisms	3,24	mg/l
Normal value for the terrestrial compartment	3,38	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				59,4 mg/kg bw/d				
Inhalation	412 mg/m3	412 mg/m3	206 mg/m3	206 mg/m3	1400 mg/m3	1400 mg/m3	700 mg/m3	700 mg/m3
Skin				1186 mg/kg bw/d				2016 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

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

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

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

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

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 ISO 16321).

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

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

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

ACETONE

Protective gloves according to EN 374.

Glove material: Butyl rubber (butyl rubber) - Layer thickness > = 0.5 mm.
Penetration time: > 480 min.
Observe the glove manufacturer's instructions regarding penetrability and breakthrough time.

ETHYL ACETATE

Butyl rubber gloves (opening times > 480 minutes), Neoprene ™ rubber, nitrile rubber (opening times up to 480 minutes).

DICHLOROMETHANE

In case of intense contact, wear protective gloves (EN 374). Sufficient protection is provided by wearing suitable protective gloves
checked according to EN 374, in case of risk of skin contact of the product. Before use, the protective glove should be
tested in each case for workstation-specific suitability (i.e. mechanical strength, product compatibility and antistatic properties).
Follow the manufacturer's instructions and information regarding the use, storage, care and replacement of protective gloves.
Protective gloves must be replaced immediately if damaged or physically worn. Design operations in such a way as to avoid permanent use of protective gloves.

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

Eye protection: safety glasses
Protection of the skin and body (with the exception of hands): adequate protective clothing. Boots
Wear face protection
Hygienic work practices: do not eat, drink or smoke during the manipulation of the product

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	transparent	
Odour	characteristic of solvent	
Melting point / freezing point	not available	
Initial boiling point	> 65 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	< 23 °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	0,845
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)	100,00 %	-	845,00	g/litre
VOC (volatile carbon)	0			

SECTION 10. Stability and reactivity

10.1. Reactivity

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

TOLUENE

Avoid exposure to: light.

ACETONE

Decomposes under the effect of heat.

Acetone reacts in the presence of bases. Vapor forms potentially explosive mixtures with air. Heavier than air, they ride at floor level and can flash a great distance when turned on. It can charge electrostatically.

ETHYL ACETATE

It slowly decomposes to acetic acid and ethanol by the action of light, air and water. Stable under normal conditions. Upon storage, it is slowly decomposed by water.

DICHLOROMETHANE

Decomposes at temperatures above 120°C/248°F.

With water and alkalis it may form hydrochloric acid and attack aluminium, copper and alloys.

TETRAHYDROFURAN

May form peroxides with: air.

Stabilize the product with a reducing agent (ferrous sulphate, hydroquinone).

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.

TOLUENE

Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

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.

ETHYL ACETATE

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

DICHLOROMETHANE

Risk of explosion on contact with: alkaline metals,nitric acid,aluminium powder,ethanediamine,aluminium chloride,perchloric acid,dinitrogen pentoxide,sodium nitride,n-nitroso n-methylurea,potassiun hydroxide.May react dangerously with: alkaline earth metals,metal powders,sodium amides,potassium tert-butylate.May form explosive mixtures with: air.

ETHANOL

Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

TETRAHYDROFURAN

Reacts violently developing heat on contact with: metal halogenates,thionile chloride,bromine.Develops flammable gas on contact with: oxidising substances.Develops hydrogen on contact with: sodium aluminium hydride,calcium hydride,lithium aluminium hydride.Risk of explosion on contact with: 2-aminophenol,potassium peroxide,alkaline hydroxides.Forms explosive mixtures with: air.

CYCLOHEXANE

May react violently with: strong oxidants,liquid nitric oxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

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

METHYL ACETATE

Static charge/discharge, vapor/aerosol formation, ignition sources.

ACETONE

Avoid exposure to: sources of heat,naked flames.

Highly flammable. Concentrated vapors are heavier than air. Forms explosive mixtures with air, even in empty and uncleaned containers. May produce, if mixed with chlorinated hydrocarbons and exposed to light, highly irritating chloric acetone.

ETHYL ACETATE

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

Ignition sources.

DICHLOROMETHANE

Avoid exposure to: naked flames,overheated surfaces.

ETHANOL

Avoid exposure to: sources of heat,naked flames.

High temperature. Proximity to sources of ignition

TETRAHYDROFURAN

Avoid exposure to: sources of heat,naked flames.

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

Heat, sparks, ignition points, flames, static electricity

10.5. Incompatible materials

METHYL ACETATE

Oxidizing agents. Reacts with: alkali. The reaction causes the formation of: methanol and heat.

ACETONE

Incompatible with: acids,oxidising substances.

Attacks many plastics and rubbers. Condensation may form when in contact with barium hydroxide, sodium hydroxide and many other alkaline materials.

Avoid contact with strong oxidizing agents, alkalis and amines.

ETHYL ACETATE

Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.

Oxidizing agents, acids, alkalis.

DICHLOROMETHANE

Incompatible with: aluminium,magnesium,sodium,potassium,nitric acid,caustic substances,strong oxidants.

Reactions with alkali metals. Reactions with alkaline earth metals. Aluminum powder; Reactions with powdered metals.
Reactions with alkali. Reactions with strong acids. Reactions with strong oxidizing agents. Zinc

ETHANOL

strong mineral acids, oxidizing agents. Aluminum at higher temperatures.

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

Strong oxidizing agents

CYCLOHEXANE

Incompatible materials: natural rubbers,neoprene,polyvinyl chloride,polyethylene.

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.

In the event of a fire, the following may be released: carbon monoxide and carbon dioxide.

ETHYL ACETATE

Carbon oxides on combustion.

DICHLOROMETHANE

May develop: dioxins,phosgenes,hydrochloric acid.

Hydrochloric acid (HCl); Possible traces: carbon monoxide; Chlorine; Phosgene.

ETHANOL

Combustion will generate carbon oxides.

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

Incomplete combustion and thermolis produce potentially toxic gases such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot

SECTION 11. Toxicological information

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

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

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

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

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

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

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

TOLUENE
It has a toxic action on the central and peripheral nervous system with encephalopathies and polyneuritis; the irritating action occurs on the skin, conjunctivae, cornea and respiratory system.

METHANOL
The minimum lethal dose for humans by ingestion is considered to be in the range from 300 to 1000 mg/kg. Ingestion of 4-10 ml of the substance may cause permanent blindness in adult humans (IPCS).

DICHLOROMETHANE
The acute toxic effect on humans causes cognitive disorders, if inhaled in large doses. At 200-500 ppm, nausea, vomiting, dizziness, paresthesia, fatigue and headache appear. Skin contact causes pain, which soon disappears without leaving any burns. Prolonged contact may cause chemical burns. Contact with the eyes causes superficial lesions of the cornea. Cases of dermatosis may ensue from repeated contact.

CYCLOHEXANE

It is irritating to the skin and mucous membranes, and can be absorbed by the skin; the neuro-damaging action can occur at high doses and is largely due to cyclohexanone, its metabolite.

Interactive effects

TOLUENE
Some medicines or other industrial products can interfere with the metabolism of toluene.

CYCLOHEXANE
The substance may enhance the effects of agents such as tri-ortho-cresyl phosphate (TOCP).

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:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

TOLUENE

LD50 (Dermal):	12124 mg/kg Rabbit
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28,1 mg/l/4h Rat

METHANOL

ATE (Dermal):	300 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)
ATE (Oral):	100 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):	> 87,6 mg/l/4h Rat
ATE (Inhalation vapours):	3 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)

DICHLOROMETHANE

LC50 (Inhalation vapours):	86 mg/l/4h Rat

ETHANOL

LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation vapours):	117 mg/l/4h Rat

Metilformiato

LD50 (Dermal):	> 4000 mg/kg
ATE (Dermal):	300 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):	1500 mg/kg
ATE (Oral):	100 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 mists/powders):	5,2 mg/l/4h
ATE (Inhalation mists/powders):	0,501 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)

TETRAHYDROFURAN

LD50 (Oral):	1650 mg/kg
LC50 (Inhalation vapours):	60 mg/l

Hydrocarbons, c6, n-alkans, isoalcans, cyclists, rich in N-Esano

LD50 (Oral):	> 25 mg/kg

CYCLOHEXANE

LD50 (Dermal):	> 2000 mg/kg Rabbit

LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation vapours):	13,9 mg/l/4h Rat

TOLUENE
Method: Equivalent or similar to EU Method B.1
Reliability: 2
Species: Rat (Sprague-Dawley Cobb; male)
Route of exposure: Oral
Results: LD50=5580 mg/kg bw
Method: Equivalent or similar to OECD 403
Reliability: 2
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Inhalation (vapours)
Results: LC50=25.7 mg/L air
Method: Not indicated
Reliability: 2
Species: Rabbit
Route of exposure: Dermal
Results: LD50>5000 mg/kg bw
Bibliographic reference: Range-finding toxicity data: List VII, Smyth HF, Carpenter CP, Weil CS, Pozzani UC, Streigel JA and Nycum JS (1969

METHYL ACETATE
Method: Equivalent or similar to OECD 401
Reliability: 2
Species: Rat (Carworth-Wistar; male)
Route of exposure: Oral
Results: LD50=6482 mg/kg bw
Method: Not indicated
Reliability: 2
Species: Rabbit (Albino; male/female)
Route of exposure: Inhalation (vapours)
Results: Not indicated
Method: OECD 402
Reliability: 1
Species: Rat (Wistar; male/female)
Route of exposure: Dermal
Results: LD50>2000 mg/kg bw

ACETONE
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Oral
Results: LD50=5800 mg/kg bw
Bibliographical reference: Acetone potentiation of acute acetonitrile toxicity, Freeman JJ, Hayes EP (1985)

ETHYL ACETATE
Method: Multi-Substance Rule for the Testing of Neurotoxicity 40 CFR Part 799 (58 FR 40262)
Reliability: 1
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Inhalation (vapours)
Results: Negative
Method: Not indicated
Reliability: 2
Species: Rabbit (New Zealand White; male)
Route of exposure: Dermal
Results: LD50 > 20 000 mg/kg bw

DICHLOROMETHANE
Method: OECD 401
Reliability: 1
Species: Rat (Wistar; male/female)
Route of exposure: Oral
Results: LD50>2000 mg/kg bw
Method: Not indicated

Reliability: 2
Species: Mouse (Swiss-Webster)
Route of exposure: Inhalation (vapours)
Results: LC50=49000 mg/m3 air
Bibliographic reference:
The toxicity and narcotic action of mono-chloromono- bromo-methane with special reference to inorganic and volatile bromide in blood, urine and brain, Svirbely JL, Highman B, Alford WF, (1947)
Method: OECD 402
Reliability: 1
Species: Rat (Wistar; male/female)
Route of exposure: Dermal
Results: LD50>2000 mg/kg bw

SKIN CORROSION / IRRITATION

Causes skin irritation

TOLUENE
Method: EU Method B.4
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Irritating

METHYL ACETATE
Method: OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Non-irritating

METHANOL
Method: Not indicated
Reliability: 2
Species: Rabbit (Vienna White)
Route of exposure: Dermal
Results: Non-irritating

DICHLOROMETHANE
Method: OECD 404
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Category 2 (irritant)

ETHANOL
Method: OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Non-irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

TOLUENE
Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Slightly irritating

METHYL ACETATE
Method: OECD 405
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Irritating

ETHYL ACETATE
Method: OECD 405
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Non-irritating

METHANOL
Method: Not indicated
Reliability: 2
Species: Rabbit
Route of exposure: Ocular
Results: Non-irritating

DICHLOROMETHANE
Method: Not indicated
Reliability: 2
Species: Rabbit (New Zealand White)
Route of exposure: Ocular
Results: Category 2 (eye irritant)
Bibliographic reference: Ophthalmic toxicology of dichloromethane, Ballantyne B, Gazzard MF, Swanson DW (1976)

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

TOLUENE
Method: EU Method B.6
Reliability: 1
Species: Guinea pig (Himalayan Albino; female)
Route of exposure: Dermal
Results: Not sensitizing

ACETONE
Method: Not indicated
Reliability: 2
Species: Guinea pig (Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing
Bibliographic reference: A new protocol and criteria for quantitative determination of sensitization potencies of chemicals by guinea pig maximization test, Nakamura A, Momma J, Sekiguchi H, Noda T, Yamano T, Kaniwa M-A, Kojima S, Tsuda M, Kurokawa Y (1994)

DICHLOROMETHANE
Method: OECD 429
Reliability: 1
Species: Mouse (CBA; female)
Route of exposure: Dermal
Results: Not classified

Skin sensitization

ETHYL ACETATE
Method: OECD 406
Reliability: 1

Species: Guinea pig (Dunkin-Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

METHANOL
Method: Equivalent or similar to OECD 406
Reliability: 2
Species: Guinea pig (Pirbright White; female)
Route of exposure: Dermal
Results: Not sensitizing

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Method: Equivalent or similar to EU Method B.13/14-in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test
Reliability: 2
Species: Rat
Route of exposure: Intraperitoneal
Results: Negative

METHYL ACETATE
Method: OECD 471-in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: OECD 474-in vivo test
Reliability: 1
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Inhalation
Results: Negative

ETHYL ACETATE
Method: Equivalent or similar to OECD 471-in vitro test
Reliability: 2
Species: S. typhimurium
Results: Negative with and without metabolic activation
Method: Equivalent or similar to OECD 474-in vivo test
Reliability: 2
Species: Chinese Hamster (male/female)
Route of exposure: Oral
Results: Negative

DICHLOROMETHANE
Method: Equivalent or similar to OECD 471-in vitro test
Reliability: 2
Species: S. typhimurium
Results: Positive with and without metabolic activation
Method: OECD 474-in vivo test
Reliability: 1
Species: Mouse (C57BL; male/female)
Route of exposure: Oral
Results: Negative

ETHANOL
Method: Equivalent or similar to OECD 478-in vivo test
Reliability: 2
Species: Mouse (CFLP and Alderley Park; male)

Route of exposure: Oral
Results: Negative

CYCLOHEXANE
Method: The procedure used was based on that reported by Clive and Spector (1975). L5178Y cells were exposed to the test chemical for 4 h in the presence and absence of rat S9 fraction and expression of the induced TK-/- phenotype determined-test in vitro
Reliability: 1
Species: Mouse lymphoma
Results: Negative with and without metabolic activation

Method: Equivalent or similar to OECD 475
Reliability: 1
Species: Rat (CRL:COBS CD(SD)BR; male/female)
Route of exposure: Inhalation (vapours)
Results: Negative

CARCINOGENICITY

Suspected of causing cancer

TOLUENE
Classified in group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) claims that "the data were found to be inadequate for an assessment of carcinogenic potential".

ACETONE
Method: Not indicated
Reliability: 2
Species: Mouse (ICR; female)
Route of exposure: Dermal
Results: Negative
Bibliographic reference: Mouse skin carcinogenicity tests of the flame retardants tris(2,3-dibromopropyl)phosphate, tetrakis(hydroxymethyl)phosphonium chloride, and polyvinyl bromide, Van Duuren BL, Loewengart G, Seldman I, Smith AC, Melchionne S (1974)

DICHLOROMETHANE
Classified in Group 2A (probable human carcinogen) by the International Agency for Research on Cancer (IARC).
Classified as "probable carcinogen" by the US National Toxicology Program (NTP) - (US DHHS, 2014).

REPRODUCTIVE TOXICITY

Suspected of damaging the unborn child

ETHYL ACETATE
Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Mouse (CD-1; male/female)
Route of exposure: Oral
Results: Negative
Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation
Results: Negative

Adverse effects on sexual function and fertility

TOLUENE
Method: Not indicated
Reliability: 2
Species: Rat (Sprague_Dawley; male/female)
Route of exposure: Inhalation (vapours)
Results: Negative, NOAEC (fertility)=600 ppm
Bibliographic reference: Reproductive and developmental toxicity studies of toluene II. Effects of inhalation exposure on fertility in rats, Ono A, Sekita K,

Ogawa Y, Hirose A, Suzuki S, Saito M, Naito K, Kaneko T, Furuya T, Kawashima K, Yasuhara K, Matsumoto K, Tanaka S, Inoue T and Kurokawa Y (1996)

DICHLOROMETHANE
Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (Fischer 344; male/female)
Route of exposure: Inhalation (vapours)
Results: Negative, NOAEC (fertility)>=1500 ppm

CYCLOHEXANE
Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (CRL:COBS CD(SD)BR; male/female)
Route of exposure: Inhalation (vapours)
Results: NOAEC (fertility) 500 - 2 000 ppm

Adverse effects on development of the offspring

TOLUENE
Method: Not indicated
Reliability: 2
Species: Rat (Wistar)
Route of exposure: Inhalation (vapours)
Results: Negative, NOAEC (development)=600 ppm
Bibliographic reference: Postnatal development and behavior of Wistar rats after prenatal toluene exposure, Thiel R and Chahoud I (1997)

ACETONE
Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapours)
Results: Negative, NOAEC (development)=2200 ppm

DICHLOROMETHANE
Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley) and mouse (Swiss-Webster)
Route of exposure: Inhalation (vapours)
Results: NOAEC (development)>=4300 mg/m3 air

ETHANOL
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley)
Route of exposure: Oral
Results: NOAEL (development) 5.2 g ethanol/kg bw/day
Bibliographic reference: Prenatal ethanol exposure has differential effects on fetal growth and skeletal ossification, Simpson ME, Duggal S, & Keiver K(2005)

CYCLOHEXANE
Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (CRL:COBS CD(SD)BR)
Route of exposure: Inhalation (vapours)
Results: NOAEC (development) 7 000 ppm

STOT - SINGLE EXPOSURE

May cause damage to organs

May cause drowsiness or dizziness

TOLUENE
On the basis of available data and expert judgement, the substance is classified in the toxicity class for target organisms for single exposure.

METHYL ACETATE
Based on available data and expert judgment, the substance is classified in the target organ toxicity class for single exposure.

ACETONE
Based on available data and expert judgment, the substance is classified in the single exposure target organ toxicity class.

ETHYL ACETATE
Based on available data and expert judgment, the substance is classified in the single exposure target organ toxicity class.

METHANOL
Based on available data and expert judgment, the substance is classified in the single exposure target organ toxicity class.

DICHLOROMETHANE
Based on available data and expert judgment, the substance is not classified in the single exposure target organ toxicity class.

ETHANOL
Based on available data and expert judgment, the substance is not classified in the single exposure target organ toxicity class.

CYCLOHEXANE
Based on available data and expert judgment, the substance is classified in the single exposure target organ toxicity class.

Target organs

TOLUENE
Central nervous system

METHYL ACETATE
Central nervous system

ACETONE
Narcotic effects

ETHYL ACETATE
Central nervous system.

METHANOL
Optic nerve (nervus opticus), central nervous system

CYCLOHEXANE
Central nervous system

Route of exposure

TOLUENE
Inhalation

ACETONE
Inhalation

ETHYL ACETATE
Inhalation.

CYCLOHEXANE

Inhalation

STOT - REPEATED EXPOSURE

May cause damage to organs

TOLUENE
Method: Equivalent or similar to EU Method B.26
Reliability: 1
Species: Rat (Fischer 344; male/female)
Route of exposure: Oral
Results: NOAEL=625 mg/kg bw/day
Method: EU Method B.29
Reliability: 1
Species: Rat (F344/N; male/female)
Route of exposure: Inhalation (vapours)
Results: NOAEC=625 ppm

METHYL ACETATE
Method: OECD 412
Reliability: 1
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Inhalation (aerosol)
Results: NOAEC=350 ppm

ACETONE
Method: Equivalent or similar to OECD 408
Reliability: 1
Species: Rat (Fischer 344; male/female)
Route of exposure: Oral
Results: Negative, NOAEL=10000 ppm
Method: Not indicated
Reliability: 2
Species: Rat (Sprague-Dawley; male)
Route of exposure: Inhalation
Results: Negative, NOAEC=19000 ppm
Bibliographic reference: Evaluation of toluene and acetone inhalant abuse. II. Model development and toxicology, Bruckner JV, Peterson RG (1981)
Method: Not indicated
Reliability: 2
Species: Not indicated
Route of exposure: Dermal
Results: Negative
Bibliographic reference: Pathology of aging female SENCAR mice used as controls in skin two-stage carcinogenesis studies, Ward J, Quander RD, Wenk M, Spangler E (1986)

ETHYL ACETATE
Method: Equivalent or similar to EPA OTS 795.2600
Reliability: 2
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Oral
Results: NOAEL 900 mg/kg bw/day
Method: EPA OTS 798.2450
Reliability: 1
Species: Rat (Crl:CD®BR; male/female)
Route of exposure: Inhalation
Results: LOEC 350 ppm

METHANOL
Based on available data and expert judgment, the substance is not classified in the target organ toxicity class for prolonged or repeated exposure.

DICHLOROMETHANE
Method: Equivalent or similar to OECD 453
Reliability: 2

Species: Rat (Fischer 344; male/female)
Route of exposure: Oral
Results: Negative, NOAEL=6 mg/kg bw/day
Method: Equivalent or similar to OECD 453
Reliability: 1
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Inhalation (vapours)
Results: Negative, NOAEC=200 ppm

ETHANOL
Method: Equivalent or similar to OECD 408
Reliability: 2
Species: Rat (Sprague-Dawley; male/female)
Route of exposure: Oral
Results: NOAEL 1 730 mg/kg bw/day

CYCLOHEXANE
Method: EPA OPPTS 870.3465
Reliability: 1
Species: Mouse (Crl:CD-1 BR; male/female)
Route of exposure: Inhalation (vapours)
Results: NOAEC 7000 ppm

Target organs

TOLUENE
Neurological

Route of exposure

TOLUENE
Inhalation

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 has negative effects on the aquatic environment.
12.1. Toxicity

TOLUENE	
LC50 - for Fish	5,5 mg/l/96h
EC50 - for Crustacea	3,78 mg/l/48h
EC50 - for Algae / Aquatic Plants	134 mg/l/72h
EC10 for Algae / Aquatic Plants	10 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	10 mg/l
CYCLOHEXANE	
LC50 - for Fish	4,53 mg/l/96h Pimephales promelas

EC50 - for Crustacea	3,89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	32,7 mg/l/72h Chlorella vulgaris

HEPTANE

LC50 - for Fish	375 mg/l/96h Tilapia mossambica
EC50 - for Crustacea	82,5 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	1,5 mg/l/72h Algae

DICHLOROMETHANE

EC10 for Algae / Aquatic Plants	550 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	550 mg/l

METHANOL

LC50 - for Fish	15400 mg/l/96h
EC50 - for Algae / Aquatic Plants	22000 mg/l/72h

METHYL ACETATE

LC50 - for Fish	250 mg/l/96h
EC50 - for Crustacea	1026,7 mg/l/48h
EC50 - for Algae / Aquatic Plants	120 mg/l/72h
EC10 for Algae / Aquatic Plants	120 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	120 mg/l

12.2. Persistence and degradability

TOLUENE
Easily degradable in water.
METHYL ACETATE
Easily degradable in water, 70% in 28 days.
ACETONE
Easily degradable in water, 90.9% in 28 days.
ETHYL ACETATE
Rapidly degradable, 60% in 10 days.
2-Metilpentano
The paraffin hydroarbons present can be considered degradable in the water and air. They primarily distribute in the air. The little that distributes in water and does not biodegrade tends to accumulate in fish.
Mixture of isomers of Esano
The paraffin hydroarbons present can be considered degradable in the water and air. They primarily distribute in the air. The little that distributes in water and does not biodegrade tends to accumulate in fish.
METHANOL
Easily degradable in water, 95% in 20 days.
DICHLOROMETHANE
Easily degradable in water, 81% in 14 days.
ETHANOL
Rapidly biodegradable, 60% in 5 days.
CYCLOHEXANE
Rapidly degradable, 77% in 21 days.

ETHYL ACETATE

Solubility in water	> 10000 mg/l

Rapidly degradable

TOLUENE

Solubility in water	100 - 1000 mg/l

Rapidly degradable

CYCLOHEXANE

Solubility in water	0,1 - 100 mg/l
Rapidly degradable	
ACETONE	
Rapidly degradable	
HEPTANE	
Solubility in water	0,1 - 100 mg/l
Rapidly degradable	
DICHLOROMETHANE	
Solubility in water	13200 mg/l
Rapidly degradable	
METHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
ETHANOL	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	
TETRAHYDROFURAN	
Solubility in water	1000 - 10000 mg/l
NOT rapidly degradable	
METHYL ACETATE	
Solubility in water	243500 mg/l
Rapidly degradable	

12.3. Bioaccumulative potential

ETHYL ACETATE	
Partition coefficient: n-octanol/water	0,68
BCF	30
TOLUENE	
Partition coefficient: n-octanol/water	2,73
BCF	90
CYCLOHEXANE	
Partition coefficient: n-octanol/water	3,44
ACETONE	
Partition coefficient: n-octanol/water	-0,23
BCF	3
HEPTANE	
Partition coefficient: n-octanol/water	4,5
BCF	552
DICHLOROMETHANE	
Partition coefficient: n-octanol/water	1,25
BCF	2

METHANOL	
Partition coefficient: n-octanol/water	-0,77
BCF	0,2
ETHANOL	
Partition coefficient: n-octanol/water	-0,35
TETRAHYDROFURAN	
Partition coefficient: n-octanol/water	0,45
METHYL ACETATE	
Partition coefficient: n-octanol/water	0,18

12.4. Mobility in soil

Information not available

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.

METHYL ACETATE
Dispose of according to regulations by incineration in a special waste incinerator. Small quantities can be disposed of by incineration in an authorized facility. Comply with local/state/federal regulations.

ACETONE
Incinerate as hazardous waste in accordance with applicable local, state and federal regulations. Do not throw in household waste.

ETHYL ACETATE

Dispose of as hazardous waste. Recover or recycle if possible. Otherwise incineration. Dispose of according to local regulations.
Container disposal: empty the container completely. Empty containers may contain highly flammable residues. Do not cut, grind, puncture, weld or dispose of containers unless adequate precautions have been taken against this hazard. Do not remove container labels until cleaned. Send to drum salvage or metal salvage.

DICHLOROMETHANE
The assignment of a waste code number, according to the European Waste Catalogue, should be carried out in accordance with the regional waste disposal company. After use, this solvent must be taken to waste disposal or waste disposal, any mixture of foreign bodies or other solvents is prohibited after use.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 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: II

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	not marine pollutant
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33 Special provision: 163, 367, 640(C-D), 650	Limited Quantities: 5 lt	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 lt	

IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Passengers:	Maximum quantity: 5 L	Packaging instructions: 353
	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	
Point	69	METHANOL REACH Reg.: 01-2119392409-28-XXXX
Point	59	DICHLOROMETHANE REACH Reg.: 01-2119480404-41-XXXX
Point	57	CYCLOHEXANE REACH Reg.: 01-2119463273-41-XXXX
Point	48	TOLUENE REACH Reg.: 01-2119471310-51-XXXX

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

Regulated explosives precursor
The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.
All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

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. 1	Flammable liquid, category 1
Flam. Liq. 2	Flammable liquid, category 2
Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
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 Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
STOT SE 2	Specific target organ toxicity - single exposure, category 2
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
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H371	May cause damage to organs.
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.
EUH019	May form explosive peroxides.
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
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

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4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
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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.