Safety Data Sheet

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

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

1.1. Product identifier

Code: **1950.0005L.103**
Product name **Н.Ц. РАЗРЕДИТЕЛ - СТАНДАРТ**

UFI : **RS00-G0WP-R00N-MNGR**

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

Intended use **Thinner - solvent.us professional and industrial.**

1.3. Details of the supplier of the safety data sheet

Name **MULTICHIMICA SPA**
Full address **via G. Galilei, 39**
District and Country **35035 Mestrino (PD)**
Italia
Tel. 049 9048611
Fax 049 9001695

e-mail address of the competent person responsible for the Safety Data Sheet **lab@multichimica.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Marco Marano CAVp Osp. Pediatrico Bambino Gesù Roma Piazza Sant'Onofrio, 4 00165 Tel..06 68593726**
Anna Lepore Az. Osp. Univ. Foggia Foggia V.le Luigi Pinto, 1 71122 Tel.800183459
Gennaro Savoia Az. Osp. A. Cardarelli Napoli Via A. Cardarelli, 9 80131 Tel. 081 5453333
M. Caterina Grassi Cav.Policlinico Umberto I Roma V.le del Policlinico, 155 161 Tel.06 49978000
Alessandro Barelli CAV Policlinico A. Gemelli Roma Largo Agostino Gemelli, 8 168 Tel.06 3054343
Primo Botti Az. Osp. Careggi U.O. Tossicologia Medica Firenze Largo Brambilla, 3 50134 Tel. 055 7947819
Carlo Locatelli CAV Centro nazionale di Informazione Tossicologia Pavia Via Salvatore Maugeri ,10 27100 Tel.0382 24444
Franca Davanzo Osp. Niguarda Cà Granda Milano Piazza Ospedale Maggiore, 3 20162 Tel.02 66101029
M. Luisa Farina Azienda Osp. Papa Giovanni XXII Bergamo Piazza OMS, 1 24127 Tel. 800883300
Azienda Ospedaliera Integrata di Verona, Piazzale Aristide Stefani,1 37126 800011858

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.
Reproductive toxicity, category 2	H361d	Suspected of damaging the unborn child.
Acute toxicity, category 4	H302	Harmful if swallowed.
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.

SECTION 2. Hazards identification ... / >>

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.
H361d	Suspected of damaging the unborn child.
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.
H336	May cause drowsiness or dizziness.
H371	May cause damage to organs.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

P501	Dispose of contents / container in accordance with local/regional/national
P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
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.

Contains: Toulene
METHYL ACETATE
METHANOL
2-Metilpentano

VOC (Directive 2004/42/EC) :
Preparatory and cleaning - Preparatory .
VOC given in g/litre of product in a ready-to-use condition : 849,00
Limit value: 850,00

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

2-Metilpentano
Exemption from the obligation to register in accordance with article 2, paragraph 7, letter d of the EC regulation 1907/2006
Mixing of Esano isomers (like 2.3dimetilbutano)
Exemption from the obligation to register in accordance with article 2, paragraph 7, letter d of the EC regulation 1907/2006

3.1. Substances

2-Metilpentano
Exemption from the obligation to register in accordance with article 2, paragraph 7, letter d of the EC regulation 1907/2006

Mixing of Esano isomers (like 2.3dimetilbutano)
Exemption from the obligation to register in accordance with article 2, paragraph 7, letter d of the EC regulation 1907/2006

3.2. Mixtures

Contains:

Identification		x = Conc. %	Classification (EC) 1272/2008 (CLP)
METHYL ACETATE			
INDEX	*607-021-00-X*	28,5 ≤ x < 30	**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*		
Toulene			
INDEX	*601-021-00-3*	25,5 ≤ x < 27	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		
METHANOL			
INDEX	*603-001-00-X*	8 ≤ x < 9	**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.	*01-2119433307-44*		
2-Metilpentano			
INDEX	*601-007-00-7*	7 ≤ x < 8	**Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411**
EC	*203-523-4*		
CAS	*107-83-5*		
ACETONE			
INDEX	*606-001-00-8*	6 ≤ x < 7	**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*		
N-BUTYL ACETATE			
INDEX	*607-025-00-1*	4,5 ≤ x < 5	**Flam. Liq. 3 H226, STOT SE 3 H336, EUH066**
EC	*204-658-1*		
CAS	*123-86-4*		
REACH Reg.	*01-2119485493-29*		
HIDROCARBONS, C9, AROMATICS			
INDEX		3 ≤ x < 3,5	**Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H335, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066, Classification note according to Annex VI to the CLP Regulation: P**
EC	*918-668-5*		
CAS			
REACH Reg.	*01-2119455851-35*		
ETHYL ACETATE			
INDEX	*607-022-00-5*	2,5 ≤ x < 3	**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*		

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

Mixing of Esano isomers (like 2.3dimetilbutano)

INDEX	*601-007-00-7*	2 ≤ x < 2,5	**Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411**
EC	*201-193-6*		
CAS	*79-29-8*		

ISO-BUTANOL

INDEX	*603-108-00-1*	1 ≤ x < 1,5	**Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336**
EC	*201-148-0*		
CAS	*78-83-1*		
REACH Reg.	*01-2119484609-23*		

PROPAN-2-OL

INDEX	*603-117-00-0*	1 ≤ x < 1,5	**Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336**
EC	*200-661-7*		
CAS	*67-63-0*		
REACH Reg.	*01-2119457558-25*		

INERT

INDEX		1 ≤ x < 1,5	
EC			
CAS			

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).

INDEX		0,9 ≤ x < 1	**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	*905-562-9*		**ATE Dermal: 1100 mg/kg, ATE Inhalation vapours: 11 mg/l**
CAS			
REACH Reg.	*01-2119555267-33*		

Methylformiato

INDEX	*607-014-00-1*	0,89 ≤ x < 1	**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, ATE Inhalation vapours: 3 mg/l**
CAS	*107-31-3*		
REACH Reg.	*01-2119487303-38*		

Methyl carbonate

INDEX	*607-013-00-6*	0,708 ≤ x < 0,808	**Flam. Liq. 2 H225**
EC	*210-478-4*		
CAS	*616-38-6*		
REACH Reg.	*01-2119548399-23*		

ETHYL METHYL KETONE

INDEX	*606-002-00-3*	0,6 ≤ x < 0,7	**Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066**
EC	*201-159-0*		
CAS	*78-93-3*		
REACH Reg.	*01-2119457290-43*		

ETHYL ALCOHOL

INDEX		0,5 ≤ x < 0,6	**Flam. Liq. 2 H225, Eye Irrit. 2 H319**
EC	*200-578-6*		
CAS	*64-17-5*		
REACH Reg.	*01-2119457610-43*		

N-HEXANE

INDEX		0,35 ≤ x < 0,4	**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*		**STOT RE 2 H373: ≥ 5%**
CAS			
REACH Reg.	*01-2119474209-33*		

HEPTANE

INDEX	*601-008-00-2*	0,31 ≤ x < 0,36	**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*		
REACH Reg.	*01-2119457603-38*		

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

1-Metil-2-Metoxythile acetate

INDEX	*607-195-00-7*	0,15 ≤ x < 0,2	**Flam. Liq. 3 H226, STOT SE 3 H336**
EC	*203-603-9*		
CAS	*108-65-6*		
REACH Reg.	*01-2119475791-29*		

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

1-Metil-2-Metoxythile acetate
2-Methoxy-1-MethyLethyl Acetate: Composition:
2-Metosspropile acetate: Content (W/W): <0.3 %
CAS number: 70657-70-4; CE number: 274-724-2; Index number: 607-251-00-0
Flam. Liq. 3 - Repr. 1b (fetus) - Stot SE 3 (irritation for app. Respiratory) H226, H335, H360D.

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 exposed or concerned: call a POISON CENTER / 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, 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.

SECTION 5. Firefighting measures ... / >>

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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

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 in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

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:

BGR	България	НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)
CZE	Česká Republika	NAŘÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
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''»
HRV	Hrvatska	Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
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
SVN	Slovenija	Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
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
	RCP TLV	ACGIH TLVs and BEIs – Appendix H

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-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
TLV	CZE	200	45,4	400	90,8	SKIN
AGW	DEU	220	50	440	100	SKIN
MAK	DEU	220	50	440	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
TLV	GRC	435	100	650	150	
GVI/KGVI	HRV	221	50	442	100	SKIN
VLEP	ITA	221	50	442	100	SKIN
TLV	ROU	221	50	442	100	SKIN
MV	SVN	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH			20			

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

ISO-BUTANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	300	97,5	600	195	
AGW	DEU	310	100	310	100	
MAK	DEU	310	100	310	100	
VLEP	FRA	150	50			
TLV	GRC	300	100	300	100	
GVI/KGVI	HRV	154	50	231	75	SKIN
TLV	ROU	100	33	200	66	
MV	SVN	310	100	310	100	
WEL	GBR	154	50	231	75	
TLV-ACGIH		152	50			

HEPTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	1600				
TLV	CZE	1000	240	2000	480	
AGW	DEU	2100	500	2100	500	
MAK	DEU	2100	500	2100	500	
VLEP	FRA	1668	400	2085	500	
TLV	GRC	2000	500	2000	500	
GVI/KGVI	HRV	2085	500			SKIN
VLEP	ITA	2085	500			
TLV	ROU	2085	500			
MV	SVN	2085	500	2085	500	
WEL	GBR	2085	500			
OEL	EU	2085	500			
TLV-ACGIH		1639	400	2049	500	

Predicted no-effect concentration - PNEC

Normal value in fresh water	NPI
Normal value in marine water	NPI
Normal value for fresh water sediment	NPI
Normal value for marine water sediment	NPI
Normal value for water, intermittent release	NPI
Normal value for marine water, intermittent release	NPI
Normal value for fresh water, intermittent release	NPI
Normal value of STP microorganisms	NPI
Normal value for the food chain (secondary poisoning)	NPI
Normal value for the terrestrial compartment	NPI
Normal value for the atmosphere	NEA

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/d				
Inhalation				447 mg/m3				

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

N-HEXANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	72	20			
TLV	CZE	70	19,53	200	55,8	SKIN
AGW	DEU	180	50	1440	400	
MAK	DEU	180	50	1440	400	
VLEP	FRA	72	20			
TLV	GRC	72	20			
GVI/KGVI	HRV	72	20			SKIN
VLEP	ITA	72	20			
TLV	ROU	72	20			
MV	SVN	72	20	576	160	
WEL	GBR	72	20			
OEL	EU	72	20			
TLV-ACGIH		176	50			SKIN

METHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	260	200			SKIN
TLV	CZE	250	187,75	1000	751	SKIN
AGW	DEU	130	100	260	200	SKIN
MAK	DEU	130	100	260	200	SKIN
VLEP	FRA	260	200	1300	1000	SKIN 11
TLV	GRC	260	200	325	250	
GVI/KGVI	HRV	260	200			SKIN
VLEP	ITA	260	200			SKIN
TLV	ROU	260	200			SKIN
MV	SVN	260	200	1040	800	SKIN
WEL	GBR	266	200	333	250	SKIN
OEL	EU	260	200			
TLV-ACGIH		262	200	328	250	SKIN

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	980		1225		
TLV	CZE	500	200	1000	400	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
VLEP	FRA			980	400	
TLV	GRC	980	400	1225	500	
GVI/KGVI	HRV	999	400	1250	500	
TLV	ROU	200	81	500	203	
MV	SVN	500	200	1000	400	
WEL	GBR	999	400	1250	500	
TLV-ACGIH		492	200	983	400	

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

ACETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	600		1400		
TLV	CZE	800	331,2	1500	621	
AGW	DEU	1200	500	2400	1000	
MAK	DEU	1200	500	2400	1000	
VLEP	FRA	1210	500	2420	1000	
TLV	GRC	1780		3560		
GVI/KGVI	HRV	1210	500			
VLEP	ITA	1210	500			
TLV	ROU	1210	500			
MV	SVN	1210	500	2420	1000	
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/l
Normal value for marine water sediment	3,04	mg/l
Normal value for water, intermittent release	21	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	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				62			2420	62
Inhalation				200 mg/m3			2420 mg/m3	1210 mg/m3
Skin				62 mg/kg bw/d				186 mg/kg bw/d

ETHYL METHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	590		885		
TLV	CZE	600	200,4	900	300,6	
AGW	DEU	600	200	600	200	SKIN
MAK	DEU	600	200	600	200	SKIN
VLEP	FRA	600	200	900	300	SKIN
TLV	GRC	600	200	900	300	
GVI/KGVI	HRV	600	200	900	300	
VLEP	ITA	600	200	900	300	
TLV	ROU	600	200	900	300	
MV	SVN	600	200	900	300	SKIN
WEL	GBR	600	200	899	300	SKIN
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

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

METHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	600	195	800	260	
AGW	DEU	620	200	1240	400	
MAK	DEU	310	100	1240	400	
VLEP	FRA	610	200	760	250	SKIN
TLV	GRC	610	200	760	250	
GVI/KGVI	HRV	616	200	770	250	
TLV	ROU	200	63	600	188	
MV	SVN	610	200	1240	400	
WEL	GBR	616	200	770	250	
TLV-ACGIH		606	200	757	250	

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	734	200	1468	400	
TLV	CZE	700	191,1	900	245,7	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
VLEP	FRA	734	200	1468	400	
TLV	GRC	734	200	1468	400	
GVI/KGVI	HRV	734	200	1468	400	
VLEP	ITA	734	200	1468	400	
TLV	ROU	734	200	1468	400	
MV	SVN	734	200	1468	400	
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	
TLV-ACGIH		1441	400			

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	710		950		
TLV	CZE	241		723		
AGW	DEU	300	62	600	124	
MAK	DEU	480	100	960	200	
VLEP	FRA	241	50	723	150	
TLV	GRC	710	150	950	200	
GVI/KGVI	HRV	241	50	723	150	
VLEP	ITA	241	50	723	150	
TLV	ROU	241	50	723	150	
MV	SVN	300	62	600	124	
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	
TLV-ACGIH			50		150	

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

Toulene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	200		500		SKIN
AGW	DEU	190	50	760	200	SKIN
MAK	DEU	190	50	760	200	SKIN
VLEP	FRA	76,8	20	384	100	SKIN
GVI/KGVI	HRV	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH		75,4	20			
TLV-ACGIH		75,4			20	SKIN

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 for water, intermittent release	0,68	mg/l
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/d				
Inhalation	226 mg/m3	226 mg/m3		56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin				226 mg/kg/d				384 mg/kg/d

1-Metil-2-Metoxythile acetate

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	270		550		SKIN
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
VLEP	FRA	275	50	550	100	SKIN
VLEP	ITA	275	50	550	100	SKIN
WEL	GBR	274	50	548	100	
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	0,0636	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value of STP microorganisms	100	mg/l

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

Methyl carbonate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,5	mg/l
Normal value in marine water	0,05	mg/l
Normal value for fresh water sediment	0,573	mg/kg
Normal value for marine water sediment	0,05	bw/day mg/kg
Normal value of STP microorganisms	188	bw/day 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		50 mg/kg bw/d		2,5 mg/kg bw/d				
Inhalation	42,5 mg/m3	42,5 mg/m3		8,7 mg/m3	57 mg/m3	57 mg/m3		17,6 mg/m3
Skin	8,9 mg/cm2	33,3 mg/m3		2,5 mg/kg bw/d	17,7 mg/cm2	66,7 mg/kg bw/d		5 mg/kg bw/d

ETHYL ALCOHOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	BGR	1000				
TLV	CZE	1000				
AGW	DEU	380				
MAK	DEU	380				
VLEP	FRA	1900		9500	1000	
TLV	GRC	1900				
GVI/KGVI	HRV	1900				
TLV	ROU	1900		9500		
MV	SVN	960	500	1920		
WEL	GBR	1920	1000			
TLV-ACGIH			1000	1884		
RCP TLV				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)	720	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
Inhalation								950 mg/kg
Skin								343 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.

Aromatic hydrocarbon, C9 hydrocarbons, aromatics
Twin/8h 100mg/m3 19 ppm stel/15min

1-Metil-2-Metoxythile acetate
Effects on Oral Consumers Crocnic Crocnic Vnd Chronic Sitemic 1.67 mg/kg Chronic local inhalation VNTEMIC SITEMICS 33 mg/m3 Dermica chronic rooms chronic sites 54.8 mg/kg effects on chronic local inhalation workers chronic systemic vnds 275 mg/m3 Dermica chronic premises chronic sites 153.5mg/kg.

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

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).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value		Information
Appearance		liquid		
Colour		colourless		
Odour		characteristic of solvent		
Melting point / freezing point		not available		
Initial boiling point	>	65	°C	
Boiling range		60-110°C	°C	
Flammability		not available		
Lower explosive limit		not available		
Upper explosive limit		not available		
Flash point		-5	°C	
Auto-ignition temperature		not available		
Decomposition temperature		not available		
pH		non polare		
Kinematic viscosity		not available		
Solubility		not available		
Partition coefficient: n-octanol/water		not available		
Vapour pressure		not available		
Density and/or relative density		0,85		
Relative vapour density		not available		
Particle characteristics		not applicable		

9.2. Other information

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

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	100,00 %	-	849,00	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.

ACETONE
Decomposes under the effect of heat.
ETHYL METHYL KETONE
Reacts with: light metals,strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat.
ETHYL ACETATE
Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

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 (Reactive mixture of ethylbenzene, m-xylene and p-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.
ETHYL METHYL KETONE
May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide,nitric acid,sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.
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.
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.
ETHYL METHYL KETONE
Avoid exposure to: sources of heat.
ETHYL ACETATE
Avoid exposure to: light,sources of heat,naked flames.
N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

10.5. Incompatible materials

ACETONE
Incompatible with: acids,oxidising substances.
ETHYL METHYL KETONE
Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.
ETHYL ACETATE

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

Incompatible with: acids,bases,strong oxidants,chlorosulphuric acid.

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.

SECTION 11. Toxicological information

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

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

Methylformiato
Irritation
Evaluation of the irritating effect:
Not irritating for the skin. Irritating for the eyes.
Experimental/calculated data:
Corrosion/irritation of the rabbit skin: not irritating. (draiize test)
Serious eye damage/eye rabbit eye irritation: irritating. (draiize test)
Avocative of the respiratory tract/of the skin
Evaluation of the sensitizing effect:
Animal tests have not shown sensitizing action. The product has not been tested. The
Indications are derived from substances/composition or similar structure products.
Experimental/calculated data:
Buehler Test Porcellino d'Ondia: non -sensitizing (Oecd - Guidelines 406)
The product has not been tested. The indications are derived from composition substances/products or
Similar structure.
Guinea Pig Maximation Test Porcellino d'India: non -sensitizing
The product has not been tested. The indications are derived from composition substances/products or
Similar structure.
Mutagenicity on germ cells
Mutgenicity evaluation: no mutagenic effect has been found in various experiments on bacteria and mammals. The product
It has not been completely tested. The statements were derived in part from products of
structure or similar composition
Carcinogenicity
Carcinogenicity evaluation:
No data available.
reproductive toxicity
Evaluation of toxicity for reproduction:
The results of animal studies do not highlight effects of damage to fertility. The product is not
been tested. The indications are derived from substances/composition or similar structure products.
Toxic for development.
Evaluation of teratogenicity:
Animal tests have not highlighted fetal damage. The product has not been tested. The
Indications are derived from substances/composition or similar structure products.
Specific toxicity for target organs (single exposure)
Single Stot evaluation:
It can irritate the respiratory tract. A single exposure can have relevant toxic effects on organs.
Targe organ: central nervous system; optical nerve
Repeated dose toxicity and specific toxicity for target organs (repeated exposure)
Assessment of toxicity following repeated administration:
After repeated administrations, the main effect is local irritation. The substance can damage
In case of repeated inhalation, the primary respiratory tract, as shown by animal tests.
Danger in case of aspiration
No aspiration risk is expected.
Other indications on toxicity
The product/substance, after taking the body, is quickly degraded with
consequent formation of methanol. The toxicity of the
methanol.

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

SECTION 11. Toxicological information ... / >>

Information on likely routes of exposure

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

N-HEXANE
WORKERS: inhalation; contact with the skin.
POPULATION: inhalation of ambient air.

METHANOL
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 (Reactive mixture of ethylbenzene, m-xylene and p-xylene).
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

N-HEXANE
The chronic toxic effect concerns the central and peripheral nervous system; this is also affected by an acute effect. The irritating action affects the respiratory tract, conjunctiva and skin.

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).

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 (Reactive mixture of ethylbenzene, m-xylene and p-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-HEXANE
Simultaneous exposure to toluene or methyl ethyl ketone inhibits the metabolism of the substance and the formation of 2,5-hexanedione (INRS, 2008).

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:	1000,00 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).

LD50 (Dermal):	4350 mg/kg Rabbit
ATE (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	3523 mg/kg Rat

SECTION 11. Toxicological information ... / >>

LC50 (Inhalation vapours):	26 mg/l/4h Rat
ISO-BUTANOL	
LD50 (Dermal):	2460 mg/kg Rabbit
LD50 (Oral):	2460 mg/kg Rat
LC50 (Inhalation vapours):	19,2 mg/l/4h Rat
N-HEXANE	
LD50 (Dermal):	3000 mg/kg Rabbit
LD50 (Oral):	5000 mg/kg 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)
PROPAN-2-OL	
LD50 (Dermal):	12800 mg/kg Rat
LD50 (Oral):	4710 mg/kg Rat
LC50 (Inhalation vapours):	72,6 mg/l/4h Rat
ACETONE	
LD50 (Dermal):	7400 mg/kg rabbit
LD50 (Oral):	5800 mg/kg 24 h rat
LC50 (Inhalation vapours):	76 mg/l/4h rat
ETHYL METHYL KETONE	
LD50 (Dermal):	6480 mg/kg Rabbit
LD50 (Oral):	2737 mg/kg Rat
LC50 (Inhalation vapours):	23,5 mg/l/8h Rat
METHYL ACETATE	
LD50 (Dermal):	> 2000 mg/kg ratto
LD50 (Oral):	> 6482 mg/kg ratto
LC50 (Inhalation vapours):	> 49,2 mg/l 4 h ratto
N-BUTYL ACETATE	
LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 6400 mg/kg Rat
LC50 (Inhalation vapours):	21,1 mg/l/4h Rat
Toulene	
LD50 (Dermal):	12267 mg/kg rabbit
LD50 (Oral):	5000 mg/kg 24h rat
LC50 (Inhalation vapours):	25,7 mg/l/4h rat
1-Metil-2-Metoxythile acetate	
LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	8530 mg/kg
Methyl carbonate	
LD50 (Dermal):	> 5,36 mg/m3 ratto
LD50 (Oral):	> 5000 mg/kg
LC50 (Inhalation vapours):	500 mg/kg bw/day ratto 4 h
Methylformiato	
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 RATTO (TEST BASF)
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)

SECTION 11. Toxicological information ... / >>

ETHYL ALCOHOL
LD50 (Dermal): 15800 mg/kg rat
LD50 (Oral): 10470 mg/kg rat
LC50 (Inhalation vapours): 30000 mg/l/4h (inalatoria ratto)

Aromatic hydrocarbon, C9 hydrocarbons, aromatics
Hydrocarbons, aromatic c9 oral LD50 3492 mg/kg/rat ld50cuanea <3160 mg/kg rabbit lc50 inhalation> 6193 mg/m3rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

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 (Reactive mixture of ethylbenzene, m-xylene and p-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".

N-HEXANE
The US Environmental Protection Agency (EPA) affirms that "the data was inadequate for an assessment of the carcinogenic potential"- (US EPA file on-line 2015).

REPRODUCTIVE TOXICITY

Suspected of damaging the unborn child

STOT - SINGLE EXPOSURE

May cause damage to organs
May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

May cause damage to organs

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

Aromatic hydrocarbon, C9 hydrocarbons, aromatics
LC50 Pisces 9.2 mg/96h EC50 Crustacean fish 3.2 mg/l48h El50 Daphnia Magna Ec50 Algae/Aquatic plants 2.9 mg/l/72h
El50Pseudokirkinchneriella subcapitated

SECTION 12. Ecological information ... / >>

HEPTANE

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

Toulene

LC50 - for Fish	5,5 mg/l/96h Oncorhynchus kisutch
EC50 - for Crustacea	3,78 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants	134 mg/l/72h Chlamydomonas angulosa
Chronic NOEC for Fish	1,39 mg/l 40 giorni - Oncorhynchus kisutch
Chronic NOEC for Crustacea	0,74 mg/l 7 giorni - Ceriodaphnia dubia
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72 ore - Skeletonema costatum

Methyl carbonate

EC50 - for Crustacea	> 100 mg/l/48h OECD 202 DAPHNIA MAGNA
EC50 - for Algae / Aquatic Plants	> 100 mg/l OECD 201 SELENASTRUM CAPRICORNUTUM
Chronic NOEC for Algae / Aquatic Plants	25 mg/l TEMPO DI ESPOSIZIONE 21 GG OECD 211

Methylformiato

LC50 - for Fish	120 mg/l/96h leucisco dorato
EC50 - for Crustacea	> 500 mg/l/48h daphnia magna

12.2. Persistence and degradability

Methyl carbonate
86% Test Duration Degradation percentage: 28D OECD 301C Method

Methylformiato
Evaluation of biodegradability and elimination (H2O):
Easily biodegradable (according to Oecd criteria).
Considerations on disposal:
90 - 100 % CO2 formation of the theoretical value (28 D) (ISO 14593) (aerobic, active mud, domestic, not adapted)
Evaluation of stability in water:
In contact with water, the substance slowly hydrolyes.
Stability data in water (hydrolysis):
T1/2 28.6 h, (Oecd 111 guideline, h 7)
T1/2 259 h, (OECD 111 guideline, Ph 4)
T1/2 0.7 h, (OECD 111 guideline, Ph 9)

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).

Solubility in water	100 - 1000 mg/l

Rapidly degradable

ISO-BUTANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

HEPTANE

Solubility in water	0,1 - 100 mg/l

Rapidly degradable

N-HEXANE

Solubility in water	0,1 - 100 mg/l

Rapidly degradable

METHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

PROPAN-2-OL
Rapidly degradable

ACETONE
Rapidly degradable

SECTION 12. Ecological information ... / >>

ETHYL METHYL KETONE
Solubility in water > 10000 mg/l
Rapidly degradable

METHYL ACETATE
Solubility in water 243500 mg/l
Rapidly degradable

ETHYL ACETATE
Solubility in water > 10000 mg/l
Rapidly degradable

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

Toulene
Rapidly degradable Rapidamente Biodegradabile

12.3. Bioaccumulative potential

Methyl carbonate
Little bioaccumulable

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).
Partition coefficient: n-octanol/water 3,12
BCF 25,9

ISO-BUTANOL
Partition coefficient: n-octanol/water 1

HEPTANE
Partition coefficient: n-octanol/water 4,5
BCF 552

N-HEXANE
Partition coefficient: n-octanol/water 4
BCF 501,187

METHANOL
Partition coefficient: n-octanol/water -0,77
BCF 0,2

PROPAN-2-OL
Partition coefficient: n-octanol/water 0,05

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

ETHYL METHYL KETONE
Partition coefficient: n-octanol/water 0,3

METHYL ACETATE
Partition coefficient: n-octanol/water 0,18

ETHYL ACETATE
Partition coefficient: n-octanol/water 0,68
BCF 30

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

Toulene
BCF 90

12.4. Mobility in soil

SECTION 12. Ecological information ... / >>

Methyl carbonate
Evaporate quickly

XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).

Partition coefficient: soil/water	2,73
ISO-BUTANOL	
Partition coefficient: soil/water	0,31
HEPTANE	
Partition coefficient: soil/water	2,38
N-HEXANE	
Partition coefficient: soil/water	3,34
METHYL ACETATE	
Partition coefficient: soil/water	0,18
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.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1263

14.2. UN proper shipping name

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

SECTION 14. Transport information ... / >>

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	Limited Quantities: 5 lt	Tunnel restriction code: (D/E)
	Special provision: 163, 367, 640D, 650		
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.: 01-2119433307-44
Point	48	Toulene REACH Reg.: 01-2119471310-51

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

SECTION 15. Regulatory information ... / >>

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.

VOC (Directive 2004/42/EC) :
Preparatory and cleaning - Preparatory .

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances
XYLENE (Reactive mixture of ethylbenzene, m-xylene and p-xylene).
ISO-BUTANOL
ETHYL METHYL KETONE
ETHYL ACETATE
N-BUTYL ACETATE
Toulene
1-Metil-2-Metoxythile acetate

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
Flam. Liq. 3	Flammable liquid, category 3
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 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
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.
H226	Flammable liquid and vapour.
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.
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.
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.

SECTION 16. Other information ... / >>

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).

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
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14. Regulation (EU) 2018/669 (XI Atp. CLP)
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16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
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21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
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- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology

SECTION 16. Other information ... / >>

- 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.

Changes to previous review:
The following sections were modified:
02 / 03 / 04 / 08 / 11 / 12 / 13 / 14 / 15.