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:	**U052100004**
Product name	**SPRAZINC R730**
UFI:	**7E50-U0AX-100H-A8EV**

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

Intended use	**Zinc protective.**
Uses advised against:	Different uses than those intented.

1.3. Details of the supplier of the safety data sheet

Name	**CENTRO DISTRIBUZIONE UTENSILI S.p.a**
Full address	**Via delle Gerole, 19**
District and Country	**20867 CAPONAGO (MB)** **ITALY**
	tel. +39 02 95746081
	fax. + 39 02 95745182
e-mail address of the competent person responsible for the Safety Data Sheet	**info@cdu.net**
Supplier:	**CENTRO DISTRIBUZIONE UTENSILI S.p.a**

1.4. Emergency telephone number

For urgent inquiries refer to	**CENTRO DISTRIBUZIONE UTENSILI S.p.a +39 02 95746081** **(Technical support - Office hour 8.30-12.30 - 13.30-17.30)**

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:

Aerosol, category 1	H222	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
Eye irritation, category 2	H319	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

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:

H222 Extremely flammable aerosol.

H229	Pressurised container: may burst if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / protective clothing / eye protection / face protection / hearing protection.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE / doctor if you feel unwell.
P337+P313	If eye irritation persists: get medical advice / attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents / container to in accordance with local and national regulations.

Contains: METHYL ACETATE;
ETHYL METHYL KETONE;
ETHYL ACETATE.

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)**
METHYL ACETATE		
INDEX 607-021-00-X	30 ≤ x < 40	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		
PROPANE		
INDEX 601-003-00-5	20 ≤ x < 25	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
CAS 74-98-6		
REACH Reg. 01-2119486944-21		
BUTANE		
INDEX 601-004-00-0	10 ≤ X < 12,5	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 203-448-7		
CAS 106-97-8		
REACH Reg. 01-2119474691-32		
ETHYL METHYL KETONE		
INDEX 606-002-00-3	5 ≤ X < 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		
XYLENE		
INDEX 601-022-00-9	4,6 ≤ x ≤ 5,6	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note according to Annex VI to the CLP Regulation: C STA Dermal: 1100 mg/kg, STA Inhalation mists/powders: 1,5 mg/l
EC 215-535-7		
CAS 1330-20-7		
REACH Reg. 01-2119488216-32		
ISOBUTANE		
INDEX 601-004-00-0	3 ≤ x < 5	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 200-857-2		
CAS 75-28-5		
REACH Reg. 01-2119485395-27		
ETHYL ACETATE		
INDEX 607-022-00-5	1 ≤ x < 2,5	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		

The full wording of hazard (H) phrases is given in section 16 of the sheet.
The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.
Percentage of propellants max: 42,20 %

SECTION 4. First aid measures

4.1. Description of first aid measures
EYES: remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed
Specific information on symptoms and effects caused by the product are unknown.

METHYL ACETATE
Irritation, dizziness, drowsiness, narcosis.

ETHYL METHYL KETONE
Eye irritation, headache. May cause drowsiness or dizziness.

XYLENE
Headache, dizziness, drowsiness, nausea and other central nervous system effects. Itching, pain, redness, skin swelling. Respiratory difficulties.

ETHYL ACETATE
Contact with eyes: mild irritation.
Contact with skin: LONG-TERM EXPOSURE/CONTACT: dry skin, cracked skin.
Inhalation: EXPOSURE TO HIGH CONCENTRATIONS: irritation of the respiratory tract, irritation of the nasal mucosa, central nervous system depression, dizziness, headache, narcosis, loss of consciousness.
Ingestion: nausea, vomiting, risk of chemical pneumonia. Central nervous system depression. Symptoms similar to those observed after inhalation.

4.3. Indication of any immediate medical attention and special treatment needed
In the event of an accident or feeling unwell, consult a doctor immediately (show the instructions for use or safety data sheet if possible).
Information for the doctor: symptomatically treatment.

SECTION 5. Firefighting measures

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

5.2. Special hazards arising from the substance or mixture
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products. Avoid breathing combustion products, carbon oxides, aromatic hydrocarbons, acetic acid vapours.

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.
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
Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions
Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up
Use inert absorbent material to soak up leaked product. 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.

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 20°, away from any combustion sources.

Storage class TRGS 510 (Germany): 2B

7.3. Specific end use(s)
Zinc protective.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters
Regulatory references:

AUS	Österreich	Gesamte Rechtsvorschrift für Grenzwerteverordnung 2021 , Fassung vom 14.05.2023

BEL	Belgique	Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail
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.)
CHE	Suisse / Schweiz	Valeurs limites d`exposition aux postes de travail: VME/VLE (SUVA). Grenzwerte am Arbeitsplatz: MAK (SUVA)
CYP	Κύπρος	Οι περί Ασφάλειας και Υγείας στην Εργασία Νόμοι του 1996 έως 2020 Κανονισμοί δυνάμει του άρθρου 38
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
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2023
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
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``»
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
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
IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
LUX	Luxembourg	Règlement grand-ducal du 24 janvier 2020 modifiant le règlement grand-ducal du 14 novembre 2016 concernant la protection des salariés contre les risques liés à l`exposition à des agents cancérigènes ou mutagènes au travail
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“patvirtinimo
LVA	Latvija	Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības saskarē ar ķīmiskajām vielām darba vietās" (prot. Nr. 32 18. §; prot. Nr. 1 22. §)
MLT	Malta	PROTECTION OF THE HEALTH AND SAFETY OF WORKERS FROM THE RISKS RELATED TO CHEMICAL AGENTS AT WORK REGULATIONS (S.L.424.24). PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO CARCINOGENS OR MUTAGENS AT WORK REGULATIONS (S.L.424.22)
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
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
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)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Direttiva (UE) 2022/431; Direttiva (UE) 2019/1831; Direttiva (UE) 2019/130; Direttiva (UE) 2019/983; Direttiva (UE) 2017/2398; Direttiva (UE) 2017/164; Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE; Direttiva 98/24/CE; Direttiva 91/322/CEE.
	TLV-ACGIH	ACGIH 2023

XYLENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	221	50	442	100	Häufigkeit pro Schicht:4x
TRK	AUS	221	50	442	100	
VLEP	BEL	221	50	442	100	SKIN
TLV	BGR	221	50	442	100	SKIN

TLV	CYP	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	
TLV	DNK	109	25			SKIN	E
VLA	ESP	221	50	442	100	SKIN	
VLEP	FRA	221	50	442	100	SKIN	
HTP	FIN	220	50	440	100	SKIN	
TLV	GRC	435	100	650	150		
AK	HUN	221	50	442	100	SKIN	
GVI/KGVI	HRV	221	50	442	100	SKIN	
VLEP	ITA	221	50	442	100	SKIN	
OELV	IRL	221	50	442	100	SKIN	
VL	LUX	221	50	442	100	SKIN	
RD	LTU	221	50	442	100	SKIN	
RV	LVA	221	50	442	100	SKIN	
TLV	MLT	221	50	442	100	SKIN	
TLV	NOR	108	25			SKIN	
TGG	NLD	210		442		SKIN	
VLE	PRT	221	50	442	100	SKIN	
NDS/NDSCh	POL	100		200		SKIN	
TLV	ROU	221	50	442	100	SKIN	
NGV/KGV	SWE	221	50	442	100	SKIN	
NPEL	SVK	221	50	442	100	SKIN	
MV	SVN	221	50	442	100	SKIN	
ESD	TUR	221	50	442	100	SKIN	
WEL	GBR	220	50	441	100	SKIN	
OEL	EU	221	50	442	100	SKIN	
TLV-ACGIH			20				

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,32	mg/l
Normal value in marine water	0,32	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value for water, intermittent release	0,32	mg/l
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	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				12,5 mg/kg				221 mg/kg
Inhalation				65,3 mg/m3	442 mg/m3			
Skin				125 mg/kg				212 mg/kg

BUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1900	800	3800	1600	STEL:60(Mow),Häufigkeit/Sch:3x
TRK	AUS	1600	800	3800	1600	
VLEP	BEL			2370	980	
TLV	BGR	1900				
MAK	CHE	1900	800	7600	3200	
VME/VLE	CHE	1900	800	7600	3200	
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
TLV	DNK	1200	500			
VLA	ESP		1000			Gases
VLEP	FRA	1900	800			
HTP	FIN	1900	800	2400	1000	
TLV	GRC	2350	1000			
AK	HUN	2350		9400		
GVI/KGVI	HRV	1450	600	1810	750	
OELV	IRL				1000	All Isomers
RV	LVA	300				
TLV	NOR	600	250			
TGG	NLD	1430				
NDS/NDSCh	POL	1900		3000		
MV	SVN	2400	1000	9600	4000	
WEL	GBR	1450	600	1810	750	
WEL	GBR		4			RESP
TLV-ACGIH					1000	

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1800	1000	3600	2000	STEL:60(Mow),Häufigkeit/Sch:3x
TRK	AUS	1800	1000	3600	2000	
VLEP	BEL		1000			
TLV	BGR	1800				
MAK	CHE	1800	1000	7200	4000	
VME/VLE	CHE	1800	1000	7200	4000	
AGW	DEU	1800	1000	7200	4000	
MAK	DEU	1800	1000	7200	4000	
TLV	DNK	1800	1000			

VLA	ESP		1000				
HTP	FIN	1500	800	2000	1100		
TLV	GRC	1800	1000				
RV	LVA	1800	100				
TLV	NOR	900	500				
NDS/NDSCh	POL	1800					
TLV	ROU	1400	778	1800	1000		
MV	SVN	1800	1000	7200	4000		

ETHYL METHYL KETONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm		
MAK	AUS	295	100	590	200	SKIN	STEL:30', Häufigkeit/Sch:4x
VLEP	BEL	600	200	900	300		
TLV	BGR	590		885			
MAK	CHE	590	200	590	200	SKIN	
VME/VLE	CHE	590	200	590	200	SKIN	
TLV	CYP	600	200	900	300		
TLV	CZE	600	200,4	900	300,6		
AGW	DEU	600	200	600	200	SKIN	
MAK	DEU	600	200	600	200	SKIN	
TLV	DNK	145	50	900	300	SKIN	E
VLA	ESP	600	200	900	300		
VLEP	FRA	600	200	900	300	SKIN	
HTP	FIN	60	20	300	100	SKIN	
TLV	GRC	600	200	900	300		
AK	HUN	600	200	900	300	SKIN	
GVI/KGVI	HRV	600	200	900	300		
VLEP	ITA	600	200	900	300		
OELV	IRL	600	200	900	300	SKIN	
VL	LUX	600	200	900	300		
RD	LTU	600	200	900	300		
RV	LVA	200	67	900	300		
TLV	MLT	600	200	900	300		
TLV	NOR	220	75				
TGG	NLD	590		500		SKIN	
VLE	PRT	600	200	900	300		
NDS/NDSCh	POL	450		900		SKIN	
TLV	ROU	600	200	900	300		
NGV/KGV	SWE	150	50	900	300		
NPEL	SVK	600	200	900	300		
MV	SVN	600	200	900	300	SKIN	

ESD	TUR	600	200	900	300		
WEL	GBR	600	200	899	300	SKIN	
OEL	EU	600	200	900	300		
TLV-ACGIH		590	200	885	300		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value for marine water sediment	284,7	mg/kg
Normal value for water, intermittent release	55,8	mg/l
Normal value of STP microorganisms	709	mg/l
Normal value for the food chain (secondary poisoning)	1000	mg/kg
Normal value for the terrestrial compartment	22,5	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			VND	31 mg/kg bw/d				
Inhalation			VND	106 mg/m3			VND	600 mg/m3
Skin			VND	412 mg/kg bw/d			VND	1161 mg/kg bw/d

METHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	610	200	1220	400	STEL:5(Mow), Häufigkeit/Sch:8x
VLEP	BEL	615	200	768	250	
MAK	CHE	310	100	1240	400	
VME/VLE	CHE	310	100	1240	400	
TLV	CZE	600	195	800	260	
AGW	DEU	620	200	1240	400	
MAK	DEU	310	100	1240	400	
TLV	DNK	455	150			
VLA	ESP	616	200	770	250	
VLEP	FRA	610	200	760	250	SKIN
HTP	FIN	610	200	770	250	
TLV	GRC	610	200	760	250	
AK	HUN	310	200	1240	400	SKIN
GVI/KGVI	HRV	616	200	770	250	
RD	LTU	450	150	900	300	
RV	LVA	100				
TLV	NOR	305	100			
TGG	NLD	100				
NDS/NDSCh	POL	250		600		
TLV	ROU	200	63	600	188	

NGV/KGV	SWE	450	150	900 (C)	300 (C)		
NPEL	SVK	310	100	770	250		
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	
MAK	AUS	734	200	1468	400	Häufigkeit pro Schicht:4x
TRK	AUS	734	200	1460	400	
VLEP	BEL	734	200	1468	400	
TLV	BGR	734	200	1468	400	
MAK	CHE	730	200	1460	400	
VME/VLE	CHE	730	200	1460	400	
TLV	CYP	734	200	1468	400	
TLV	CZE	700	191,1	900	245,7	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
TLV	DNK	540	150	1468	400	E
VLA	ESP	734	200	1468	400	
VLEP	FRA	734	200	1468	400	
HTP	FIN	730	200	1470	400	
TLV	GRC	734	200	1468	400	
AK	HUN	734	200	1468	400	
GVI/KGVI	HRV	734	200	1468	400	
VLEP	ITA	734	200	1468	400	
OELV	IRL	734	200	1468	400	
VL	LUX	734	200	1468	400	
RD	LTU	500	150	1100 (C)	300 (C)	
RV	LVA	200	54	1468	400	
TLV	MLT	734	200	1468	400	
TLV	NOR	734	200			
TGG	NLD	734		1468		
VLE	PRT	734	200	1468	400	
NDS/NDSCh	POL	734		1468		
TLV	ROU	734	200	1468	400	
NGV/KGV	SWE	550	150	1100	300	
NPEL	SVK	734	200	1468	400	
MV	SVN	734	200	1468	400	
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	

TLV-ACGIH	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/d
Normal value for marine water sediment		0,115	mg/kg/d
Normal value for water, intermittent release		1,65	mg/l
Normal value of STP microorganisms		650	mg/l
Normal value for the food chain (secondary poisoning)		200	mg/kg
Normal value for the terrestrial compartment		0,148	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				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

ISOBUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	BEL			2370	980	
MAK	CHE	1900	800			
VME/VLE	CHE	1900	800			
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
HTP	FIN	1900	800	2400	1000	
OELV	IRL				1000	
TLV-ACGIH					1000	

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

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Use protective gloves that guarantee total protection for the skin, e.g. in cotton, rubber, pvc or nitron. (ref. standard EN 374)
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Use closed safety visors, do not use ocular lenses. (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 AX filter combined with a type P filter should be worn (see standard EN 14387).
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	aerosol	
Colour	metallic grey	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	not applicable	Reason for missing data: does not apply to aerosols and gases
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not applicable	Reason for missing data: insoluble in water
Kinematic viscosity	not available	
Solubility	in water: insoluble; in oil: soluble	Remark: refers to the liquid base of the spray
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	not available	
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Information not available.

9.2.2. Other safety characteristics

VOC (Directive 2004/42/EC) :	85,00 %
Propellant flammability	extremely flammable
Limit of propellant flammability	1,8-9,5%

SECTION 10. Stability and reactivity

10.1. Reactivity

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

ETHYL ACETATE
It slowly decomposes to acetic acid and ethanol by the action of light, air and water.

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

ETHYL ACETATE
Avoid exposure to: light, moisture, air.

10.3. Possibility of hazardous reactions
It can generate flammable gases in contact with elementary metals (alkalis and alkaline earths), nitrides.
It can ignite in contact with oxidizing mineral acids, strong oxidizing agents, strong reducing agents.

ETHYL METHYL KETONE
Avoid contact with: oxidising agents.
ETHYL ACETATE
May react violently with: strong oxidising agents, acids.

10.4. Conditions to avoid
Avoid overheating.

XYLENE
Avoid exposure to: naked flames.
ETHYL METHYL KETONE
Avoid exposure to: sources of heat.
ETHYL ACETATE
Avoid exposure to: heat, naked flames, sparks, sources of ignition, electrostatic charges.

10.5. Incompatible materials
Strong reducing or oxidising agents, strong acids or alkalis, hot material.

XYLENE
Avoid contact with: acids, oxidising agents.
ETHYL METHYL KETONE
Incompatible with: strong oxidants, inorganic acids, ammonia, copper, chloroform.
ETHYL ACETATE
Incompatible with: acids, bases, strong oxidants, chlorosulphuric acid.

10.6. Hazardous decomposition products
XYLENE
When heated to decomposition releases: carbon oxides, aromatic hydrocarbons.
ETHYL METHYL KETONE
May develop: carbon oxides.
ETHYL ACETATE
In decomposition develops: carbon oxides, vapors of acetic acid, ethanol.

SECTION 11. Toxicological information

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

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

Metabolism, toxicokinetics, mechanism of action and other information
Information not available.

Information on likely routes of exposure
XYLENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
XYLENE
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

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

ACUTE TOXICITY

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

XYLENE

LD50 (Dermal):	> 5000 mg/kg Rabbit
STA (Dermal):	1100 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	5627 mg/kg Male mouse
LC50 (Inhalation vapours):	6700 mg/l/4h Male rat
STA (Inhalation mists/powders):	1,5 mg/l (figure used for calculation of the acute toxicity estimate of the mixture)

ETHYL METHYL KETONE

LD50 (Dermal):	6480 mg/kg Rabbit
LD50 (Oral):	2737 mg/kg Rat
LC50 (Inhalation vapours):	23,5 mg/l/8h Rat

ETHYL ACETATE

LD50 (Dermal):	> 20000 mg/kg bw Male rabbit
LD50 (Oral):	4934 mg/kg bw Rabbit (OECD 401)
LC50 (Inhalation vapours):	> 22,5 mg/l/6h Rat

SKIN CORROSION / IRRITATION
Repeated exposure may cause skin dryness or cracking.

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
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".

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE
May cause drowsiness or dizziness.

STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class.

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

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

ETHYL METHYL KETONE

LC50 - for Fish	2993 mg/l/96h Pimephales promelas
EC50 - for Crustacea	308 mg/l/48h Daphnia magna

ETHYL ACETATE

LC50 - for Fish	230 mg/l/96h Pimephales promelas
EC50 - for Crustacea	165 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	2,4 mg/l 21d - Daphnia magna

12.2. Persistence and degradability

XYLENE

Solubility in water	100 - 1000 mg/l
Rapidly degradable	

BUTANE
Rapidly degradable

PROPANE
Rapidly degradable

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	69% - 20d in water

12.3. Bioaccumulative potential

XYLENE

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

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 Log Kow 25° C
BCF	30 - 3d - Leuciscus idus

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.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1950

14.2. UN proper shipping name

ADR / RID:	AEROSOLS, FLAMMABLE
IMDG:	AEROSOLS
IATA:	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.1
IMDG:	Class: 2	Label: 2.1
IATA:	Class: 2	Label: 2.1

14.4. Packing group

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special provision: 190, 327, 344, 625		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Passengers:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special provision:	A145, A167, A802	

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: P3a.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 40

Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable.

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None.

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

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

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)
WGK 2: hazard to waters.

15.2. Chemical safety assessment
A chemical safety assessment has not been performed for the mixture.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas (Liq.)	Liquefied gas
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
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
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.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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

Classification and procedure used to derive it in accordance with Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Aerosol, 1 H222+H229	Calculation method and on the basis of experimental data
Eye Irrit. 2 H319	Calculation method
STOT SE 3 H336	Calculation method

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
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16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)

17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
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- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
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- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.
CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.