

F71

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

Product name F71
UFI : FJE1-N04H-R00R-Y1HW

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

Intended use Professional cutting, milling and threading oil.

1.3. Details of the supplier of the safety data sheet

Name SK SOLKEM INDUSTRIES SRL A SOCIO UNICO
Full address Corso Europa 85/91
District and Country 20033 Solaro (Mi)
Italia
Tel. 0039 02 84505
Fax 0039 02 84505479

e-mail address of the competent person
responsible for the Safety Data Sheet regulatory@sksolkem.com

1.4. Emergency telephone number

For urgent inquiries refer to +39 0284505 (From Monday to Friday H. 8.00-17.00)

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 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Reproductive toxicity, effects on or via lactation	H362	May cause harm to breast-fed children.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 1	H410	Very toxic to aquatic life with long lasting effects.

F71**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.
H362	May cause harm to breast-fed children.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
EUH208	Contains: Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ... May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of the product and container in accordance with local and national regulations.
P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
P211	Do not spray on an open flame or other ignition source.

Contains: CHLORINATED PARAFFINS, C14-17
HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS
METHYL ACETATE

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Statements on the aspiration toxicity classification were not included in the label elements, based on section 1.3.3. of Annex I to CLP.

The product is classified both in acute and long-term aquatic hazard categories: it is possible to use only hazard statement H410 on the label.

2.3. Other hazards

vPvB substances contained:

CHLORINATED PARAFFINS, C14-17

PBT substances contained:

CHLORINATED PARAFFINS, C14-17

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS INDEX - EC 927-510-4 CAS 64742-49-0 REACH Reg. 01-2119475515-33-XXXX	$17,5 \leq x < 20$	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
PROPANE INDEX 601-003-00-5 EC 200-827-9 CAS 74-98-6 REACH Reg. 01-2119486944-21	$14 \leq x < 15,5$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
BUTANE INDEX 601-004-00-0 EC 203-448-7 CAS 106-97-8 REACH Reg. 01-2119474691-32-XXXX	$12,5 \leq x < 14$	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
CHLORINATED PARAFFINS, C14-17 INDEX 602-095-00-X EC 287-477-0 CAS 85535-85-9	$10,5 \leq x < 12$	Lact. H362, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=10, EUH066

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REACH Reg. 01-2119519269-33-XXXX

ISOBUTANE

INDEX 601-004-00-0 5 ≤ x < 6,5 Flam. Gas 1A H220, Press. Gas 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-XXXX

METHYL ACETATE

INDEX 607-021-00-X 2 ≤ x < 2,5 Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC 201-185-2

CAS 79-20-9

REACH Reg. 01-2119459211-47-XXXX

METHANOL

INDEX 603-001-00-X 0,5 ≤ x < 0,6 Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
STOT SE 2 H371: ≥ 3% - < 10%

EC 200-659-6

CAS 67-56-1

ATE Oral: 100 mg/kg, ATE Dermal: 300 mg/kg, ATE Inhalation mists/powders: 0,501 mg/l

REACH Reg. 01-2119433307-44-XXXX

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

INDEX - 0,1 ≤ x < 0,15 Skin Irrit. 2 H315, Skin Sens. 1B H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411

EC 939-700-4

CAS -

REACH Reg. 01-2119982395-25-XXXX

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: 33,00 %

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

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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: Get medical advice / attention.

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

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.

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 50°C / 122°F, away from any combustion sources.

Storage class TRGS 510 (Germany):
2B

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

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 France Décret 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

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HRV	Hrvatska	<p>2017/2398/EE, 2019/130/EE και 2019/983/EE «για την τροποποίηση της οδηγίας 2004/37/EK ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``» Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnimkemičkim na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021) Decreto Legislativo 9 Aprile 2008, n.81 Forskrift om endring i forskrift om tiltaksverdi og grenseverdi for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdi), 21. august 2018 nr. 1255 Arbeidsomstandighedsregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit 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 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 Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006 Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1) 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) EH40/2005 Workplace exposure limits (Fourth Edition 2020) 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. ACGIH 2023</p>
ITA	Italia	
NOR	Norge	
NLD	Nederland	
PRT	Portugal	
POL	Polska	
ROU	România	
SWE	Sverige	
SVN	Slovenija	
GBR	United Kingdom	
EU	OEL EU	
	TLV-ACGIH	

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	mg/m3
				ppm
TLV-ACGIH		2085	500	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			VND	447 mg/m3			VND	2085 mg/m3
Skin			VND	149 mg/kg/d				300 mg/kg bw/d

PROPANE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	mg/m3
				ppm
AGW	DEU	1800	1000	7200
MAK	DEU	1800	1000	7200
TLV	DNK	1800	1000	
VLA	ESP		1000	
HTP	FIN	1500	800	2000
TLV	GRC	1800	1000	
TLV	NOR	900	500	
NDS/NDSch	POL	1800		
TLV	ROU	1400	778	1800
MV	SVN	1800	1000	7200

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BUTANE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
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		
GVI/KGVI	HRV	1450	600	1810	750
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

CHLORINATED PARAFFINS, C14-17

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	6	0,3	48	2,4
AGW	DEU	6	0,3	48	2,4
Predicted no-effect concentration - PNEC					
Normal value in fresh water				0,001	mg/l
Normal value in marine water				0,0002	mg/l
Normal value for fresh water sediment				13	mg/kg/d
Normal value for marine water sediment				2,6	mg/kg/d
Normal value of STP microorganisms				80	mg/l
Normal value for the food chain (secondary poisoning)				10	mg/kg
Normal value for the terrestrial compartment				20	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,115 mg/kg bw/d				
Inhalation				0,4 mg/m3				1,6 mg/m3
Skin				5,75 mg/kg bw/d				11,5 mg/kg bw/d

ISOBUTANE

Threshold Limit Value

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Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
AGW	DEU	2400	1000	9600
HTP	FIN	1900	800	2400

METHYL ACETATE
Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
TLV	CZE	600	195	800
AGW	DEU	620	200	1240
MAK	DEU	310	100	1240
TLV	DNK	455	150	
VLA	ESP	616	200	770
VLEP	FRA	610	200	760
HTP	FIN	610	200	770
TLV	GRC	610	200	760
GVI/KGVI	HRV	616	200	770
TLV	NOR	305	100	
TGG	NLD	100		
NDS/NDSch	POL	250		600
TLV	ROU	200	63	600
NGV/KGV	SWE	450	150	900 (C)
MV	SVN	610	200	1240
WEL	GBR	616	200	770
TLV-ACGIH		606	200	757

Predicted no-effect concentration - PNEC

Normal value in fresh water	12	mg/l
Normal value in marine water	12	mg/l
Normal value for fresh water sediment	128	mg/kg
Normal value for marine water sediment	128	mg/kg
Normal value of STP microorganisms	600	mg/l
Normal value for the food chain (secondary poisoning)	204	mg/kg
Normal value for the terrestrial compartment	416	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	44 mg/kg/d				
Inhalation			152 mg/m3	131 mg/m3			305 mg/m3	610 mg/m3
Skin			VND	44 mg/kg/d			VND	88 mg/kg/d

METHANOL

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Threshold Limit Value

Type	Country	TWA/8h	STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	250	187,75	1000	751	SKIN
AGW	DEU	130	100	260	200	SKIN
MAK	DEU	130	100	260	200	SKIN
TLV	DNK	260	200			SKIN E
VLA	ESP	266	200			SKIN
VLEP	FRA	260	200	1300	1000	SKIN 11
HTP	FIN	270	200	330	250	SKIN
TLV	GRC	260	200	325	250	
GVI/KGVI	HRV	260	200			SKIN
VLEP	ITA	260	200			SKIN
TLV	NOR	130	100			SKIN
TGG	NLD	133				SKIN
VLE	PRT	260	200			SKIN
NDS/NDSch	POL	100		300		SKIN
TLV	ROU	260	200			SKIN
NGV/KGV	SWE	250	200	350 (C)	250 (C)	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

Predicted no-effect concentration - PNEC

Normal value in fresh water	154	mg/l
Normal value in marine water	154	mg/l
Normal value for fresh water sediment	570	mg/kg
Normal value of STP microorganisms	100	mg/l

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation		50 mg/kg				260 mg/m3		
Skin		8 mg/kg/d				40 mg/kg/d		

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,000976	mg/l
Normal value in marine water	0,000098	mg/l
Normal value for fresh water sediment	4,23	mg/kg
Normal value for marine water sediment	0,423	mg/kg
Normal value for water, intermittent release	0,00976	mg/l

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Normal value of STP microorganisms	0,69	mg/l		
Normal value for the terrestrial compartment	0,842	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
Oral	0,2 mg/kg/d			
Inhalation	0,3 mg/m ³		1,3 mg/m ³	
Skin	0,2 mg/kg/d		0,4 mg/kg/d	

Legend:

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

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

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

If contact with the product is expected, it is recommended to protect your hands with work gloves (see standard EN 374).

The following should be considered when choosing work glove material: 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.

Protect your hands with gloves of the following type:

Material: Natural rubber (NR) - latex

Thickness: 0,35 mm

Breakthrough time: 480 min

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.

EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type 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.

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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	Temperature: 20 °C
Colour	brown	Temperature: 20 °C
Odour	characteristic	
Odour threshold	not determined	
Melting point / freezing point	-185 °C	Remark:Propellant.
Initial boiling point	-161 °C	Remark:Propellant.
Flammability	flammable gas	
Lower explosive limit	1,8 % (v/v)	Remark:Propellente.
Upper explosive limit	9,5 % (v/v)	Remark:Propellente.
Flash point	-100 °C	Remark:Propellant.
Auto-ignition temperature	> 388 °C	Remark:Propellant.
Decomposition temperature	not determined	
pH	not applicable	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture)
Kinematic viscosity	not determined	
Solubility	insoluble in water	Temperature: 20 °C
Partition coefficient: n-octanol/water	not applicable	Reason for missing data:Not applicable to mixtures.
Vapour pressure	not available	
Density and/or relative density	0,73 kg/dm ³	Method:ASTM D 1298 Temperature: 20 °C
Relative vapour density	not determined	
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

Evaporation rate	not determined	
VOC (Directive 2010/75/EU)	55,28 % - 403,53	g/litre
VOC (volatile carbon)	40,24 % - 293,76	g/litre
Explosive properties	not explosive	
Oxidising properties	Not oxidizing	

SECTION 10. Stability and reactivity

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10.1. Reactivity

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

CHLORINATED PARAFFINS, C14-17

Stable in normal conditions of use and storage.

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Stable in normal conditions of use and storage.

10.2. Chemical stability

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

CHLORINATED PARAFFINS, C14-17

Stable in normal conditions of use and storage.

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

CHLORINATED PARAFFINS, C14-17

Stable in normal conditions of use and storage.

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Stable in normal conditions of use and storage.

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

Avoid exposure to: naked flames,electrostatic discharges.

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Avoid exposure to: heat,electrostatic discharges,naked flames.

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10.5. Incompatible materials

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

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

Incompatible with: oxidising agents.

CHLORINATED PARAFFINS, C14-17

Avoid contact with: metals.

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

Avoid contact with: strong acids, strong oxidising agents, strong bases.

10.6. Hazardous decomposition products

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

In decomposition develops: carbon oxides.

CHLORINATED PARAFFINS, C14-17

When heated to decomposition releases: hydrochloric acid.

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

METHANOL

WORKERS: inhalation; contact with the skin.

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

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

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).

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Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture: > 5 mg/l
ATE (Oral) of the mixture: >2000 mg/kg
ATE (Dermal) of the mixture: >2000 mg/kg

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

LD50 (Dermal): > 2920 mg/kg (Rabbit)
LD50 (Oral): > 8 mg/kg (Rat)
LC50 (Inhalation mists/powders): > 23,3 mg/l/4h (Rat)

CHLORINATED PARAFFINS, C14-17

LD50 (Dermal): 4000 mg/kg
LD50 (Oral): > 4000 mg/kg Rat - Wistar
LC50 (Inhalation vapours): > 48,17 mg/l/1h Rat

ISOBUTANE

LC50 (Inhalation vapours): 52000 ppm/2h (Rat)

METHYL ACETATE

LD50 (Dermal): > 2000 mg/kg (Rabbit)
LD50 (Oral): 6482 mg/kg (Rat)
LC50 (Inhalation mists/powders): 49,2 mg/l/4h (Rabbit)

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 mists/powders): 0,501 mg/l
(figure used for calculation of the acute toxicity estimate of the mixture)

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

LD50 (Dermal): > 2000 mg/kg (Rabbit)
LD50 (Oral): 3313 mg/kg (Rat)

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

GERM CELL MUTAGENICITY

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Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

May cause harm to breast-fed children.

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

11.2. Information on other hazards

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

SECTION 12. Ecological information

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

12.1. Toxicity

METHYL ACETATE

LC50 - for Fish	250 mg/l/96h (Brachydanio rerio)
EC50 - for Crustacea	1026 mg/l/48h (Daphnia magna)
EC50 - for Algae / Aquatic Plants	> 120 mg/l/72h (Scenedesmus subspicatus)

CHLORINATED PARAFFINS, C14-17

LC50 - for Fish	> 5000 mg/l/96h Alburnus alburnus
EC50 - for Crustacea	0,0077 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 3,2 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea	0,01 mg/l Daphnia magna

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

LC50 - for Fish	375 mg/l/96h (Tilapia mossambica)
EC50 - for Crustacea	3 mg/l/48h (Daphnia magna)
EC50 - for Algae / Aquatic Plants	1,5 mg/l/72h (Algae)

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Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methanamine, H-Benzotriazole-2-methanamine, ...

LC50 - for Fish	1,3 mg/l/96h (Brachydanio rerio)
EC50 - for Crustacea	2,05 mg/l/48h (Daphnia magna)
EC50 - for Algae / Aquatic Plants	0,976 mg/l/72h (Desmodesmus subspicatus)
EC10 for Algae / Aquatic Plants	0,658 mg/l/72h (Desmodesmus subspicatus)

12.2. Persistence and degradability

BUTANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable
PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable
METHANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable
METHYL ACETATE

Solubility in water 243500 mg/l

Rapidly degradable
CHLORINATED PARAFFINS, C14-17

Solubility in water < 0,1 mg/l

NOT rapidly degradable

HYDROCARBONS C7, N-ALCANES,
ISOALKANS, CYCLICS

Rapidly degradable

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methanamine, H-Benzotriazole-2-methanamine, ...

Solubility in water < 0,01 %

NOT rapidly degradable

12.3. Bioaccumulative potential

BUTANE

Partition coefficient: n-octanol/water < 2,8

PROPANE

Partition coefficient: n-octanol/water 1,09

METHANOL

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Partition coefficient: n-octanol/water -0,77

BCF 0,2

METHYL ACETATE

Partition coefficient: n-octanol/water 0,18

CHLORINATED PARAFFINS, C14-17

Partition coefficient: n-octanol/water 7,2

**HYDROCARBONS C7, N-ALCANES,
ISOALKANS, CYCLICS**

Partition coefficient: n-octanol/water 4,5

BCF 552

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

vPvB substances contained:

PBT substances contained:

CHLORINATED PARAFFINS, C14-17

CHLORINATED PARAFFINS, C14-17

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.

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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
 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: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO



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

14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

IMDG: EMS: F-D, S-U

IATA: Cargo:

Special provision: 190, 327, 344, 625

Passengers:

Limited Quantities: 1 lt

Limited Quantities: 1 lt
 Maximum quantity: 150 kg
 Maximum quantity: 75

Tunnel restriction code: (D)

Packaging instructions: 203
 Packaging instructions:

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Special provision:

kg
A145, A167,
A802

203

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-E1

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

Product

Point 40

Contained substance

Point 75

Point 69

METHANOL REACH Reg.: 01-
2119433307-44-XXXX

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

not applicable

Substances in Candidate List (Art. 59 REACH)

CHLORINATED PARAFFINS, C14-17

REACH Reg.: 01-2119519269-33-XXXX

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

HYDROCARBONS C7, N-ALCANES, ISOALKANS, CYCLICS

PROPANE

BUTANE

CHLORINATED PARAFFINS, C14-17

ISOBUTANE

Reaction 1H-Benzotriazole-1-methanamine, N,N-bis(2ethylhexyl)-6-methyl-, 2H-Benzotriazole-2-methanamine, N,N-bis(2ethylhexyl)-5-methyl-, N,N-bis(2ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine, H-Benzotriazole-2-methanamine, ...

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
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Lact.	Reproductive toxicity, effects on or via lactation
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1B	Skin sensitization, category 1B
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
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.

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H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H362	May cause harm to breast-fed children.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
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.
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

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 - ECHA website
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Note for users:

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

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

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

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

CALCULATION METHODS FOR CLASSIFICATION

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

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

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

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 11 / 12 / 13 / 14 / 16.