Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code:	**V406/OR**
Product name	**Removable spray film 400 ml**
Chemical name and synonym	**Spray paint**

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

Intended use **Removable film of paint.**

Identified Uses	Industrial	Professional	Consumer
Industrial Use	✔	-	-
Professional Use	-	✔	-

1.3. Details of the supplier of the safety data sheet

Name	**AMBRO-SOL S.R.L.**
Full address	**Via per Pavone del Mella n.21**
District and Country	**25020 Cigole (BS)** **Italia**
	Tel. +39 030 9959674
	Fax +39 030 959265
e-mail address of the competent person responsible for the Safety Data Sheet	**quality@ambro-sol.com**

1.4. Emergency telephone number

For urgent inquiries refer to

Centro Antiveleni di Pavia: 0382 24444 (IRCCS Fondazione Maugeri - Pavia)
Centro Antiveleni di Bergamo: 800 883300 (Ospedali Riuniti - Bergamo)
Centro Antiveleni di Firenze: 055 7947819 (Ospedale Careggi - Firenze)
Centro Antiveleni di Roma: 06 3054343 (Policlinico Gemelli - Roma)
Centro Antiveleni di Napoli: 081 7472870 (Ospedale Cardarelli - Napoli)
Centro de Información Toxicológica en España: 91 5620420 (Inst. Nacional de Toxicología y Ciencias Forenses)
Centre Antipoison en France: 01 40054848 (Centre Antipoison et de Toxicovigilance de Paris)
Pomorskie Centrum Toksykologii ul. Kartuska 4/6, 80-104 Gdańsk tel./fax: (58) 682 04 04
American Association of Poison Control Centers: +1 (800) 222-1222

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 2015/830.
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.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 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:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

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 dust / fume / gas / mist / vapours / spray.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.

Contains:	n-butyl acetate
	naphtha (petroleum), hydrodesulfurized light, dearomatized
	methyl acetate
	methyl amyl ketone

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

VOC (Directive 2004/42/EC) :

Special finishes.

VOC given in g/litre of product in a ready-to-use condition :	627,80
Limit value:	840,00

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
N-BUTYL ACETATE		
CAS 123-86-4	31 ≤ x < 35	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC 204-658-1		
INDEX 607-025-00-1		
Reg. no. 01-2119485493-29-XXXX		
PROPANE		
CAS 74-98-6	19 ≤ x < 23	Flam. Gas 1 H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		
INDEX 601-003-00-5		
Reg. no. 01-2119486944-21-0046		
Hydrocarbons C4		
CAS 87741-01-3	9 ≤ x < 11	Flam. Gas 1 H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: K U
EC 289-339-5		
INDEX 649-113-00-2		
Reg. no. 01-2119480480-41-XXXX		
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	7 ≤ x < 9	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-0037		
NAPHTHA (PETROLEUM), HYDRODESULFURIZED LIGHT, DEAROMATIZED		
CAS 92045-53-9	7 ≤ x < 9	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: P
EC 295-434-2		
INDEX 649-383-00-1		
Reg. no. 01-2119475515-33-XXXX		
XYLENE (MIXTURE OF ISOMERS)		
CAS 1330-20-7	3 ≤ x < 5	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Irrit. 2 H315, Classification note according to Annex VI to the CLP Regulation: C
EC 215-535-7		
INDEX 601-022-00-9		
Reg. no. 01-2119488216-32-XXXX		
Rame in polvere		
CAS 7440-50-8	2,5 ≤ x < 3	Acute Tox. 4 H302, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: L
EC 231-159-6		
INDEX -		
Reg. no. 01-2119480154-42-XXXX		
Methyl amyl ketone		

CAS 110-43-0	1 ≤ x < 3	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H332, STOT SE 3 H336
EC 203-767-1		
INDEX 606-024-00-3		
Reg. no. 01-2119902391-49-0000		
METHYL ACETATE		
CAS 79-20-9	1 ≤ x < 3	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 201-185-2		
INDEX 607-021-00-X		
Reg. no. 01-2119459211-47-XXXX		
Zinc powder (stabilised)		
CAS 7440-66-6	0,5 ≤ x < 1	Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1, Classification note according to Annex VI to the CLP Regulation: T
EC 231-175-3		
INDEX 030-001-01-9		
Reg. no. 01-2119467174-37-XXXX		
METHANOL		
CAS 67-56-1	0 ≤ x < 0,5	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
EC 200-659-6		
INDEX 603-001-00-X		
Reg. no. 01-2119433307-44-XXXX		
ETHYL ACETATE		
CAS 141-78-6	0 ≤ x < 0,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 205-500-4		
INDEX 607-022-00-5		
Reg. no. 01-2119475103-46-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: 30,50 %

* Naphtha (petroleum), hydrodesulfurized light, dearomatized: a complex combination of hydrocarbons obtained by distillation of hydrodesulfurized and dearomatized light petroleum fractions. It consists predominantly of C7 paraffins and cycloparaffins boiling in a range of approximately 90°C to 100°C (194°F to 212°F).

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.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
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.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	TRGS 900 (Fassung 31.1.2018 ber.) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 7 czerwca 2017 r
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diaro da Republica I 26; 2012-02-06
EU	OEL EU	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 91/322/EEC.
	TLV-ACGIH	ACGIH 2017

N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	300	62	600	124
VLA	ESP	724	150	965	200
VLEP	FRA	710	150	940	200
WEL	GBR	724	150	966	200
NDS	POL	200		950	
TLV-ACGIH			50		150

Predicted no-effect concentration - PNEC		
Normal value in fresh water	180	µg/l
Normal value in marine water	18	µg/l
Normal value for fresh water sediment	981	µg/kg/d
Normal value for marine water sediment	98,1	µg/kg/d
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	90,3	µg/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		2 mg/kg bw/d		2 mg/kg bw/d		2		2
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	12 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	48 mg/m3
Skin	NPI	6 mg/kg bw/d	NPI	3,4 mg/kg bw/d	NPI	11 mg/kg bw/d	NPI	7 mg/kg bw/d

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	1800	1000	7200	4000
MAK	DEU	1800	1000	7200	4000
NDS	POL	1800			
TLV-ACGIH			1000		

Hydrocarbons C4

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			918 mg/m3	66,4 µg/m3			1530 mg/m3	2,21 mg/m3
Skin								23,4 mg/kg bw/d

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	440	100	880	200	SKIN
MAK	DEU	440	100	880	200	SKIN
VLA	ESP	221	50	442	100	SKIN
VLEP	FRA	221	50	442	100	SKIN
WEL	GBR	220	50	441	100	
VLEP	ITA	221	50	442	100	SKIN
NDS	POL	100				
VLE	PRT	221	50	442	100	SKIN
OEL	EU	221	50	442	100	SKIN
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	327	µg/l
Normal value in marine water	327	µg/l
Normal value for fresh water sediment	12,46	mg/kg/d
Normal value for marine water sediment	12,46	mg/kg/d
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	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				1,6 mg/kg bw/d				
Inhalation				14,8 mg/m3			289 mg/m3	77 mg/m3
Skin				108 mg/kg bw/d				180 mg/kg bw/d

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		

		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	440	100	880	200	SKIN		
MAK	DEU	440	100	880	200	SKIN		
VLA	ESP	221	50	442	100	SKIN		
VLEP	FRA	221	50	442	100	SKIN		
WEL	GBR	220	50	441	100			
VLEP	ITA	221	50	442	100	SKIN		
NDS	POL	100						
VLE	PRT	221	50	442	100	SKIN		
OEL	EU	221	50	442	100	SKIN		
TLV-ACGIH		434	100	651	150			

Predicted no-effect concentration - PNEC		
Normal value in fresh water	327	µg/l
Normal value in marine water	327	µg/l
Normal value for fresh water sediment	12,46	mg/kg/d
Normal value for marine water sediment	12,46	mg/kg/d
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	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				1,6 mg/kg bw/d				
Inhalation				14,8 mg/m3			289 mg/m3	77 mg/m3
Skin				108 mg/kg bw/d				180 mg/kg bw/d

Rame in polvere

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
MAK	DEU	0,1		0,2		INHAL		
VLA	ESP	0,2						
VLEP	FRA	0,2						
WEL	GBR	1		2				
NDS	POL	0,2						
TLV-ACGIH		0,2						

Predicted no-effect concentration - PNEC		
Normal value in fresh water	7,8	µg/l
Normal value in marine water	5,2	µg/l
Normal value for fresh water sediment	87	mg/kg/d
Normal value for marine water sediment	676	mg/kg/d
Normal value of STP microorganisms	230	µg/l
Normal value for the terrestrial compartment	65	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
Inhalation		20 mg/m3			NPI	20 mg/m3	NPI	
Skin	NPI	273 mg/kg bw/d	NPI	137 mg/kg bw/d	NPI	273 mg/kg bw/d	NPI	137 mg/kg bw/d

Methyl amyl ketone

Predicted no-effect concentration - PNEC		
Normal value in fresh water	98,2	µg/l
Normal value in marine water	9,82	µg/l
Normal value for fresh water sediment	1,89	mg/kg/d
Normal value for marine water sediment	189	µg/kg/d
Normal value for water, intermittent release	982	µg/l
Normal value of STP microorganisms	12,5	mg/l
Normal value for the terrestrial compartment	321	µg/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				23,32 mg/kg bw/d				
Inhalation				84,31 mg/m3		1516 mg/m3		394,25 mg/m3
Skin				23,32 mg/kg bw/d				54,27 mg/kg bw/d

METHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	620	200	1240	400	
MAK	DEU	310	100	1240	400	
VLA	ESP	616	200	770	250	
VLEP	FRA	610	200	760	250	SKIN
WEL	GBR	616	200	770	250	
NDS	POL	250		600		
TLV-ACGIH		606	200	757	250	

Predicted no-effect concentration - PNEC		
Normal value in fresh water	120	µg/l
Normal value in marine water	12	µg/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		NPI		44 mg/kg bw/d				
Inhalation	VND	VND	152 mg/m3		VND	VND	305 mg/m3	610 mg/m3
Skin			NPI	44 mg/kg bw/d	NPI	VND	NPI	88 mg/kg bw/d

Zinc powder (stabilised)

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min

		mg/m3	ppm	mg/m3	ppm			
MAK	DEU	0,1		0,4		RESP		
Predicted no-effect concentration - PNEC								
Normal value in fresh water				20,6	µg/l			
Normal value in marine water				6,1	µg/l			
Normal value for fresh water sediment				117,8	mg/kg/d			
Normal value for marine water sediment				56,5	mg/kg/d			
Normal value of STP microorganisms				100	µg/l			
Normal value for the terrestrial compartment				35,6	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		NPI		830 µg/kg bw/d				
Inhalation	NPI	NPI	NPI	2,5 mg/m3	NPI	NPI	NPI	5 mg/m3
Skin	NPI	NPI	NPI	83 mg/kg/d	NPI	NPI	NPI	83 mg/kg bw/d

METHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	270	200	1080	800	SKIN		
MAK	DEU	270	200	1080	800	SKIN		
VLA	ESP	266	200			SKIN		
VLEP	FRA	260	200	1300	1000	SKIN		
WEL	GBR	266	200	333	250	SKIN		
VLEP	ITA	260	200			SKIN		
NDS	POL	100		300				
VLE	PRT	260	200			SKIN		
OEL	EU	260	200			SKIN		
TLV-ACGIH		262	200	328	250			
Predicted no-effect concentration - PNEC								
Normal value in fresh water				20,8	mg/l			
Normal value in marine water				2,08	mg/l			
Normal value for fresh water sediment				77	mg/kg/d			
Normal value for marine water sediment				7,7	mg/kg/d			
Normal value for water, intermittent release				1,54	g/l			
Normal value of STP microorganisms				100	mg/l			
Normal value for the terrestrial compartment				100	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		8 mg/kg bw/d		8 mg/kg bw/d				
Inhalation	50 mg/m3	50 mg/m3	50 mg/m3	50 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3
Skin		8 mg/kg bw/d		8 mg/kg bw/d		40 mg/kg bw/d		40 mg/kg bw/d

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	1500	400	3000	800
MAK	DEU	1500	400	3000	800
VLA	ESP	1460	400		
VLEP	FRA	1400	400		
WEL	GBR		200		400
NDS	POL	734		1468	
OEL	EU	734	200	1468	400
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC		
Normal value in fresh water	240	µg/l
Normal value in marine water	24	µg/l
Normal value for fresh water sediment	1,15	µg/kg
Normal value for marine water sediment	115	µg/kg
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	148	µg/kg/d
Normal value for the atmosphere	NPI	

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	4,5 mg/kg				
Inhalation	734 mg/kg	734 mg/kg	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin			VND	37 mg/kg				63 mg/kg

trans-1,3,3,3-Tetrafluoroprop-1-ene

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	4700	1000	9400	2000

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,1	mg/l
Normal value for water, intermittent release	1	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			VND	3902 mg/m3			VND	830 mg/m3

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.

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
None required.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

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

Appearance	aerosol
Colour	gold
Odour	characteristic of solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	30 °C
Boiling range	Not available
Flash point	< 0 °C
Evaporation Rate	Not available
Flammability of solids and gases	flammable gas
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	20°C 0,71 ÷ 0,75 g/ml g/ml
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	not applicable

Oxidising properties	not applicable

9.2. Other information

Total solids (250°C / 482°F)	3,14 %
VOC (Directive 2004/42/EC) :	86,00 % - 627,80 g/litre
Viscosity	> 20,5 mm2/sec (40°C) base

SECTION 10. Stability and reactivity

10.1. Reactivity

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

N-BUTYL ACETATE
Decomposes on contact with: water.

ETHYL ACETATE
Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

10.2. Chemical stability

The product is 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.

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.

XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.

XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants,strong acids,nitric acid,perchlorates.May form explosive mixtures with: air.

Zinc powder (stabilised)
Risk of explosion on contact with: ammonium nitrate,ammonium sulphide,barium peroxide,lead nitride,chlorates,chromium trioxide,sodium hydroxide,oxidising agents,performic acid,acids,tetrachloromethane,water.May react dangerously with: alkaline hydroxides,bromine pentafluoride,calcium chloride,fluorine,hexachloroethane,nitrobenzene,potassium dioxide,carbon disulphide,silver.Reacts with: strong acids,strong alkalis.May develop: hydrogen.

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.

10.4. Conditions to avoid

Avoid overheating.

N-BUTYL ACETATE
Avoid exposure to: moisture,sources of heat,naked flames.

Zinc powder (stabilised)

Avoid exposure to: heat,moisture.

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

10.5. Incompatible materials

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

N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

Zinc powder (stabilised)
Incompatible with: water,acids,strong alkalis.

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

10.6. Hazardous decomposition products

Information not available

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 toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

XYLENE (MIXTURE OF ISOMERS)

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

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; 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 (MIXTURE OF ISOMERS)

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

XYLENE (MIXTURE OF ISOMERS)

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

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 (MIXTURE OF ISOMERS)

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.

XYLENE (MIXTURE OF ISOMERS)

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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

LC50 (Inhalation) of the mixture:
> 20 mg/l
LD50 (Oral) of the mixture:
>2000 mg/kg
LD50 (Dermal) of the mixture:
>2000 mg/kg

Zinc powder (stabilised)

LD50 (Oral) > 2000 mg/kg bw rat

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral) > 3000 mg/kg rat

LD50 (Dermal) > 1700 mg/kg rabbit

LC50 (Inhalation) 5000 ppm/4h rat

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral) 3523 mg/kg Rabbit

LD50 (Dermal) 4350 mg/kg Rabbit

LC50 (Inhalation) 26 mg/l/4h Rat

NAPHTHA (PETROLEUM), HYDRODESULFURIZED LIGHT, DEAROMATIZED

LD50 (Oral) > 5000 mg/kg Rat

LD50 (Dermal) > 2000 mg/kg Rabbit

PROPANE

LC50 (Inhalation) 800000 ppm 15 min

METHANOL

LD50 (Oral) 1978 mg/kg bw rat

LC50 (Inhalation) 123,3 mg/l/4h rat

METHYL ACETATE

LD50 (Oral) 6482 mg/kg rat

LD50 (Dermal) 2000 mg/kg bw rat

LC50 (Inhalation) 49,2 mg/l/4h rabbit

ETHYL ACETATE

LD50 (Oral) 11,3 mg/kg bw rat

LD50 (Dermal) 20000 mg/kg bw rabbit

N-BUTYL ACETATE

LD50 (Oral) > 10000 mg/kg Rat

LD50 (Dermal) > 5000 mg/kg rabbit

LC50 (Inhalation) 0,74 mg/l/4h Rat

Rame in polvere

LD50 (Oral) > 300 mg/kg bw rat

LD50 (Dermal) 2000 mg/kg bw rat

LC50 (Inhalation) 5,11 mg/l/4h rat

Hydrocarbons C4

LC50 (Inhalation) 1442,738 mg/l 15 min rat

Methyl amyl ketone

LD50 (Oral) > 1600 mg/kg rat

LD50 (Dermal) 2000 mg/kg rat

LC50 (Inhalation) > 16 mg/l/4h rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

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".

XYLENE (MIXTURE OF ISOMERS)

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

Toxic for aspiration

SECTION 12. Ecological information

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

12.1. Toxicity

Zinc powder (stabilised)	
LC50 - for Fish	112 µg/l/96h
EC50 - for Crustacea	155 µg/l/48h
Chronic NOEC for Fish	720 µg/l 84 days
Chronic NOEC for Crustacea	300 µg/l 3 months
Chronic NOEC for Algae / Aquatic Plants	20 µg/l 4 days

XYLENE (MIXTURE OF ISOMERS)	
LC50 - for Fish	2,6 mg/l/96h
EC50 - for Algae / Aquatic Plants	4,6 mg/l/72h
EC10 for Crustacea	1,9 mg/l/21d
Chronic NOEC for Fish	1,3 mg/l 56 days
Chronic NOEC for Crustacea	960 µg/l 7 days
Chronic NOEC for Algae / Aquatic Plants	440 µg/l 73 h

XYLENE (MIXTURE OF ISOMERS)	
LC50 - for Fish	2,6 mg/l/96h
Chronic NOEC for Fish	1,3 mg/l 56 days
Chronic NOEC for Crustacea	1065 µg/l 7 days

Chronic NOEC for Algae / Aquatic Plants	440 µg/l 73 h

NAPHTHA (PETROLEUM), HYDRODESULFURIZED LIGHT, DEAROMATIZED

LC50 - for Fish	8,2 mg/l/96h Pimephales promelas
EC50 - for Crustacea	4,5 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	3,1 mg/l/72h Pseudokirchnerella subcapitata

PROPANE

LC50 - for Fish	85,82 mg/l/96h
EC50 - for Crustacea	41,82 mg/l/48h

METHANOL

LC50 - for Fish	15,4 g/l/96h
Chronic NOEC for Fish	446,7 mg/l 28 days
Chronic NOEC for Crustacea	208 mg/l 21 days

METHYL ACETATE

LC50 - for Fish	300 mg/l/96h
EC50 - for Crustacea	1,027 g/l
EC50 - for Algae / Aquatic Plants	120 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	120 mg/l 72 h

ETHYL ACETATE

LC50 - for Fish	230 mg/l/96h
EC50 - for Algae / Aquatic Plants	100 mg/l/72h
Chronic NOEC for Fish	9,65 mg/l 32 days
Chronic NOEC for Crustacea	2,4 mg/l 21 days

N-BUTYL ACETATE

LC50 - for Fish	18 mg/l/96h
EC50 - for Crustacea	32 mg/l/48h
EC50 - for Algae / Aquatic Plants	246 mg/l/72h
Chronic NOEC for Crustacea	23,2 mg/l 21 days
Chronic NOEC for Algae / Aquatic Plants	105 mg/l 72 h

Rame in polvere

LC50 - for Fish	> 2,8 µg/l
EC50 - for Crustacea	> 1 µg/l
EC50 - for Algae / Aquatic Plants	> 16,5 µg/l
Chronic NOEC for Fish	9,5 µg/l 6,3 months
Chronic NOEC for Crustacea	9,9 µg/l 46 days
Chronic NOEC for Algae / Aquatic Plants	30 µg/l 7 days

Hydrocarbons C4

LC50 - for Fish	19 mg/l/96h
EC50 - for Crustacea	11 mg/l/48h

Methyl amyl ketone

LC50 - for Fish	131 mg/l/96h
EC50 - for Crustacea	90,1 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 75 mg/l/72h
Chronic NOEC for Fish	104 mg/l 4 days
Chronic NOEC for Crustacea	90,1 mg/l 48 h
Chronic NOEC for Algae / Aquatic Plants	42,68 mg/l 72 h

12.2. Persistence and degradability

PROPANE
Global Warming Potential (GWP): 3. Ozone Depletion Potential (ODP): 0.

Zinc powder (stabilised)

Solubility in water	0,1 - 100 mg/l

Degradability: information not available

XYLENE (MIXTURE OF ISOMERS)

Solubility in water	146 - 208 mg/L @ 25 °C and pH 7 mg/l

Rapidly degradable

XYLENE (MIXTURE OF ISOMERS)

Solubility in water	100 - 1000 mg/l

Rapidly degradable
Readily biodegradable (100%)

NAPHTHA (PETROLEUM), HYDRODESULFURIZED LIGHT, DEAROMATIZED
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

ETHYL ACETATE

Solubility in water	> 10000 mg/l

Rapidly degradable

N-BUTYL ACETATE
Solubility in water 5,3 g/l
Rapidly degradable

Rame in polvere
Solubility in water < 0,1 mg/l
Degradability: information not available

Hydrocarbons C4
Rapidly degradable

Methyl amyl ketone
Solubility in water 4,21 g/l 20 ° pH 7
Rapidly degradable

12.3. Bioaccumulative potential

XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: n-octanol/water 3,12
BCF 25,9

XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: n-octanol/water 3,12
BCF 25,9

PROPANE
Partition coefficient: n-octanol/water 1,09

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

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

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: soil/water 2,73

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: soil/water	2,73
NAPHTHA (PETROLEUM), HYDRODESULFURIZED LIGHT, DEAROMATIZED	
Partition coefficient: soil/water	2
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 greater than 0,1%.

12.6. Other adverse effects

Hydrocarbons C4
German Water Hazard Class (WGK): 1.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Product residues are considered hazardous special waste. Do not dispose of in wastewater.
Empty cylinders, although completely emptied, should not be dispersed in the environment.
The overheated aerosol container at a temperature above 50 °C may burst even if it contains a small gas residue.
Waste transport may be subject to ADR.
Refer to applicable regulations.

European Waste Catalog (contaminated containers):
Aerosol as a household waste is excluded from the application of the above standard.
The exhausted commercial / industrial aerosol can be classified as: 15.01.10 *: packaging containing residues of dangerous or contaminated substances.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA:	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:	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: -		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 200 Kg	Packaging instructions: 677
	Pass.:	Maximum quantity: 100 Kg	Packaging instructions: 670
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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/EC: P3a

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

Product Point 40

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 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.

VOC (Directive 2004/42/EC) :

Special finishes.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

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

Flam. Gas 1	Flammable gas, category 1
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
Press. Gas	Pressurised gas
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
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 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
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 burst if heated.
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.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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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.