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:
 411 00 00910-1851

 Product name
 IDROREP

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

Intended use Waterproof for electrical contacts

1.3. Details of the supplier of the safety data sheet

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

Italy

Tel. +39 0587 609433 Fax +39 0587 607145

e-mail address of the competent person

responsible for the Safety Data Sheet moreno.meini@meccanocar.it

1.4. Emergency telephone number

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

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 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.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity,	H412	Harmful to aquatic life with long lasting effects.
category 3		

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

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Hazard pictograms:







Signal words:

Danger

Hazard statements:

H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated.

H318 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

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 no expose to temperatures exceeding 50°C / 122°F.

P211 Do not spray on an open flame or other ignition source.

P331 Do NOT induce vomiting.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

Contains: HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

POLYOXYETHYLENE 10 TRIDECYL ETHER

(R)-P-MENTHA-1,8-DIENE ORANGE TERPENS

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

3.2. Mixtures

Contains:

Identification x = Conc. % Classification 1272/2008 (CLP)

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES,

<2% AROMATIC

CAS 64742-48-9 45 ≤ x < 47,5 Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066

EC 919-857-5 INDEX -

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Reg. no. 01-2119463258-33-XXXX

BUTANE

CAS 106-97-8 22,5 ≤ x < 24 Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to

Annex VI to the CLP Regulation: C U

EC 203-448-7

INDEX 601-004-00-0

Reg. no. 01-2119474691-32-XXXX

PROPANE

CAS 74-98-6 $8 \le x < 9$ Flam. Gas 1A 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-XXXX

1-METHOXY-2-PROPANOL

CAS 107-98-2 $8 \le x < 9$ Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-539-1

INDEX 603-064-00-3

Reg. no. 01-2119457435-35-XXXX

ISOBUTANE

CAS 75-28-5 8 ≤ x < 9 Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2

INDEX 601-004-00-0

Reg. no. 01-2119485395-27-XXXX

(R)-P-MENTHA-1,8-DIENE

CAS 5989-27-5 $2 \le x < 2,5$ Flam. Liq. 3 H226, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 1

H410 M=1, Classification note according to Annex VI to the CLP Regulation:

С

EC 227-813-5

INDEX 601-029-00-7

Reg. no. 01-2119529223-47-XXXX

ORANGE TERPENS

CAS 8028-48-6 2 ≤ x < 2,5 Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317,

Aquatic Chronic 2 H411

EC 232-433-8

INDEX -

Reg. no. 01-2119493353-35-XXXX

POLYOXYETHYLENE 10

TRIDECYL ETHER

CAS 24938-91-8 $2 \le x < 2,5$ Acute Tox. 4 H302, Eye Dam. 1 H318

EC INDEX -

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: 39,00 %

SECTION 4. First aid measures

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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

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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:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
ITA	Italia	DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017
NOR	Norge	Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om
		arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5
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 - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
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 2019

BUTANE							
Threshold Limit Value	е						
Туре	Country	TWA/8h		STEL/15min		Remarks /	
						Observations	
		mg/m3	ppm	mg/m3	ppm		
VLA	ESP		1000			Ga	ises
VLEP	FRA	1900	800				
WEL	GBR	1450	600	1810	750		
TLV	NOR	600	250				

TLV-ACGIH	1000

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						R	eplaced revision:1 (Date	ed: 13/03/2019)	
1-METHOXY-2-PROPANO	L								
Threshold Limit Value	Otime	T\A/A /OL		OTEL MEssis		D	1 /		
Туре	Country	TWA/8h		STEL/15min		Remar Observ			
		mg/m3	ppm	mg/m3	ppm				
VLA	ESP	375	100	568	150	SKIN			
VLEP	FRA	188	50	375	10	SKIN			
WEL	GBR	375	100	560	150	SKIN			
VLEP	ITA	375	100	568	150	SKIN			
TLV	NOR	180	50			SKIN			
VLE	PRT	375	100	568	150				
OEL	EU	375	100	568	150	SKIN			
TLV-ACGIH		184	50	368	100				
Predicted no-effect concentration	n - PNEC								
Normal value in fresh water				10	mg/l				
Normal value in marine water				1	mg/l				
Normal value for fresh water see	diment			52,3	mg/k	kg			
Normal value for marine water s	sediment			5,2	mg/k	·g			
Normal value of STP microorga	nisms			100	mg/l				
Normal value for the terrestrial of	compartment			4,59	mg/k	kg			
Health - Derived no-effect	·	OMEL							
	Effects on consumers				Effects on workers				
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic	
Oral				systemic 33 mg/kg		systemic		systemic	
Inhalation				bw/d 78 mg/m3	553,5 mg/m3	553,5 mg/	m3	369 mg/m3	
Skin				43,9 mg/kg				183 mg/kg	
				bw/d				bw/d	
PROPANE									
Threshold Limit Value		T 1414 (5)		OTEL ::- :					
Туре	Country	TWA/8h		STEL/15min		Remar Observ			
		mg/m3	ppm	mg/m3	ppm				
VLA	ESP		1000						
TLV	NOR	900	500						
TLV-ACGIH			1000						
00 ANOT									
ORANGE TERPENS Predicted no-effect concentration	on - PNEC								
Normal value in fresh water				0,54	mg/l				
Normal value in marine water				0,054	mg/l				
Normal value for fresh water sea	diment			1,3	mg/k				
Normal value for marine water set				0,13	mg/k				
Normal value of STP microorga	HISHIS			2,1	mg/l				

0,261

mg/kg

Effects on workers

Normal value for the terrestrial compartment

Health - Derived no-effect level - DNEL / DMEL

Effects on consumers

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Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				4,44 mg/kg bw/d				<u> </u>
Inhalation				7,78 mg/m3				31,1 mg/m3
Skin			9,29 mg/kg bw/d	4,44 mg/kg bw/d			18,58 mg/kg bw/d	8,89 mg/kg bw/d

Туре	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	168	30			SKIN
TLV	NOR	140	25			
Predicted no-effect co	ncentration - PNEC					
Normal value in fresh	water			1,4		mg/l
Normal value in marin	e water			1,4		mg/l
Normal value for fresh	water sediment			3,85		mg/kg
Normal value for marii	ne water sediment			0,385		mg/kg
Normal value of STP r	microorganisms			1,8		mg/l
Normal value for the for	ood chain (secondary poise	oning)		133		mg/kg
Name al color for the 4	errestrial compartment			0,763		mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on				Effects on			
	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				4,8 mg/kg bw/d				
Inhalation				16,6 mg/m3				66,7 mg/m3
Skin				4,8 mg/kg bw/d				9,5 mg/kg bw/d

Legend:

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

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

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 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 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.

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Chemical resistant gloves are recommended. Nitrile, standards CEN EN 420 and EN 374 provide general requirements and lists of types of gloves.

ISOBUTANE

Suitable glove material protective gloves, e.g. nitrile butadiene rubber gloves (NBR), leather gloves, heat insulating

Selection of protective gloves to meet specific workplace requirements.

Suitability for specific workplaces must be clarified with the manufacturers of protective gloves.

The information is based on our tests, references from literature and information from glove manufacturers or derived by analogy with similar materials. Remember that the useful time per day of a chemical protection glove can be much shorter than the breakthrough time determined according to EN 374 due to the numerous influencing factors involved.

1-METHOXY-2-PROPANOL

Use chemical resistant gloves classified according to EN374: protective gloves against chemicals and microorganisms. Examples of preferred barrier material for gloves include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable barrier materials for gloves include: Natural rubber ("latex"). Neoprene. Nitrile / butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. In case of prolonged or frequently repeated contact, a glove with a protection class of 5 or higher is recommended (breakthrough time greater than 240 minutes according to EN 374). When only brief contact is expected, a glove with a protection class of 1 or more is recommended (breakthrough time greater than 10 minutes according to EN 374). NOTICE: selection of a specific glove for a particular application and duration of use in a work environment should also take into account all relevant factors in the workplace such as, but not limited to: Other chemicals that can be handled, physical requirements (cut / puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as instructions / specifications provided by the glove supplier.

ORANGE TERPENS

Hand protection:

Preventive skin protection through the use of protective agents is recommended.

Protective gloves

The glove material must be impermeable and resistant to the product / the substance / the preparation.

Selection of glove material in consideration of breakthrough times, diffusion rates and degradation

Glove material:

The choice of suitable gloves depends not only on the material, but also on additional quality brands and varies from manufacturer to manufacturer.

Penetration time of glove material> 480 minutes at a layer thickness of 0.425 mm (Sol-Vex 37-695 / Ansell).

The exact breakthrough time must be found out by the manufacturer of the protective gloves and must be respected.

For permanent contact gloves made of the following materials are suitable: nitrile rubber, NBR

For example. next product: Ansell's Sol-Vex (37-695).

As protection from splashes, gloves made of the following materials are suitable: Nitrile rubber, NBR

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(R) -P-MENTHA-1,8-DIENE

Chemical resistant protective gloves (standard EN 374-1).

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

aerosol Appearance Colour colourless Odour characteristic Odour threshold Not available рΗ Not available Not available Melting point / freezing point Initial boiling point Not available Boiling range Not available < 0 °C Flash point Evaporation rate Not available Flammability (solid, gas) Not available Lower inflammability limit Not available Upper inflammability limit Not available Lower explosive limit Not available Upper explosive limit Not available Vapour pressure Not available

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 available

Oxidising properties Not available

9.2. Other information

Vapour density

Relative density

VOC (Directive 2010/75/EC): 41,76 % - 302,79 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

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

Not available 0.725

1-METHOXY-2-PROPANOL

Dissolves various plastic materials. Stable in normal conditions of use and storage.

Meccanocar Italia S.r.I. IDROREP Revision nr. 2 Dated 19/02/2020 Printed on 19/02/2020 Page n. 10/25 Replaced revision:1 (Dated: 13/03/2019) Absorbs and disolves in water and in organic solvents. With air it may slowly form explosive peroxides.

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.

BUTANE

Vapors can form an explosive mixture with air.

ISOBUTANE

Vapors can form an explosive mixture with air.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents, strong acids.

ORANGE TERPENS

Possible formation of explosive gas mixture with air. In the event of unfavorable storage conditions (introduction of air, accumulation of heat), self-ignition is possible for moistened solids (eg cloth, pulp, filter panel, binder). Reacts violently with oxidizing agents.

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Avoid heat, sparks, open flames and other sources of ignition.

BUTANE

Avoid heat and sources of ignition.

ISOBUTANE

Keep away from heat and other causes of fire.

1-METHOXY-2-PROPANOL

Avoid exposure to: air.

Do not distill to dryness. The product can oxidize at high temperatures. The generation of gas during decomposition can cause pressure in closed systems.

ORANGE TERPENS

Revision nr. 2 Meccanocar Italia S.r.l. Dated 19/02/2020 Printed on 19/02/2020 **IDROREP** Page n. 11/25 Replaced revision:1 (Dated: 13/03/2019) Heating causes vaporization and the formation of a flammable atmosphere is possible. (R) -P-MENTHA-1,8-DIENE Prolonged or excessive heat and / or exposure to air can cause non-hazardous decomposition and / or oxidation of the substance. Keep away from heat and other causes of fire. 10.5. Incompatible materials Strong reducing or oxidising agents, strong acids or alkalis, hot material. HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC Strong oxidants BUTANE Strong oxidizing agents, chlorine, oxygen. ISOBUTANE Strong oxidizing agents, chlorine, oxygen. 1-METHOXY-2-PROPANOL Incompatible with: oxidising substances, strong acids, alkaline metals. Avoid contact with: strong acids. Strong bases. Strong oxidants. (R) -P-MENTHA-1,8-DIENE Avoid contact with strong acids and strong oxidizing agents. 10.6. Hazardous decomposition products BUTANE In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO2). ISOBUTANE In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO2).

Decomposition products depend on temperature, air supply and the presence of other materials. Decomposition products can include and are not limited

1-METHOXY-2-PROPANOL

to: Aldehydes. Ketones. Organic acids.

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

1-METHOXY-2-PROPANOL

WORKERS: inhalation; contact with the skin.

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

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

1-METHOXY-2-PROPANOL

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product. Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported.

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:
Not classified (no significant component)
LD50 (Oral) of the mixture:
>2000 mg/kg
LD50 (Dermal) of the mixture:
Not classified (no significant component)

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD 423

Reliability: 2

Species: Rat (Wistar; male / female)

Route of exposure: Oral

Results: LD50> 15 000 mg / kg bw

Method: Equivalent or similar to OECD 403

Reliability: 1

Species: Rat (Crj: CD (SD); male / female) Route of exposure: Inhalation (vapors) Results: LC50> 4 951 mg / m³ air

Method: Equivalent or similar to OECD 402

Reliability: 2

Species: Rabbit (New Zealand White; male / female)

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Route of exposure: Dermal Results: LD50> 5 000 mg / kg bw

BUTANE

Method: Not indicated

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation Results: LC50: 1 443 mg / L air

1-METHOXY-2-PROPANOL

Method: EU Method B.1

Reliability: 1

Species: Rat (Fischer 344; male / female) Route of exposure: Oral

Results: LD50 = 3739 mg / kg bw

Method: Equivalent or similar to OECD 403

Reliability: 1

Species: Rat (Fischer 344; male / female) Route of exposure: Inhalation (vapors)

Results: Not classified

Method: Equivalent or similar to EU Method B.3

Reliability: 1

Species: Rat (Fischer 344; male / female)

Route of exposure: Dermal Results: LD50> 2000 mg / kg bw

PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.

Reliability: 2

Species: Rat (Alderley Park (SPF); male / female)

Route of exposure: Inhalation Results: LC50> 800 000 ppm

ORANGE TERPENS

Method: Equivalent or similar to OECD 401

Reliability: 1

Species: Rat (Wistar; male) Route of exposure: Oral Results: LD50> 5 000 mg / kg bw

Method: Equivalent or similar to OECD 402

Reliability: 2

Species: Rabbit (New Zealand White; female)

Route of exposure: Dermal Results: LD50> 5 000 mg / kg bw

(R) -P-MENTHA-1,8-DIENE

Method: OECD 423

Reliability: 1

Species: Rat (Sprague-Dawley; female)

Route of exposure: Oral

Results: LD50> 2000 mg / kg bw

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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Replaced revision:1 (Dated: 13/03/2019)

Method: Equivalent or similar to OECD 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Irritating

1-METHOXY-2-PROPANOL

Method: Equivalent or similar to EU Method B.4

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal Results: Not irritating

(R) -P-MENTHA-1,8-DIENE

Method: OECD 404

Reliability: 2 Species: Rabbit (albino) Route of exposure: Dermal Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD 405 Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Ocular Results: Not irritating

1-METHOXY-2-PROPANOL

Method: Equivalent or similar to EU Method B.5

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Ocular Results: Not irritating

(R) -P-MENTHA-1,8-DIENE

Method: OECD 405

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Ocular Results: Not irritating

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

1-METHOXY-2-PROPANOL

Method: Equivalent or similar to EU Method B.6

Reliability: 1

Species: guinea pig (male / female)

Route of exposure: Dermal Results: Not sensitizing

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(R) -P-MENTHA-1,8-DIENE

Method: OECD 429 Reliability: 2

Species: Mouse (CBA / Ca; female)

Route of exposure: Dermal Results: Sensitizers

Skin sensitization HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD 406 Reliability: 2

Species: guinea pig (Hartley; female)

Route of exposure: Dermal Results: Not sensitizing

ORANGE TERPENS

Method: OECD Guideline 429

Reliability: 2

Species: Mouse (CBA / Ca; female) Route of exposure: Dermal Results: Sensitizer category 1

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD 471 in vitro test

Reliability: 1

Species: S. typhimurium

Results: Negative with or without metabolic activation Method: Equivalent or similar to OECD 474 in vivo test

Reliability: 1

Species: Mouse (CD-1; male / female)

Route of exposure: Oral Results: Negative

BUTANE

Method: OECD 471 in vitro test

Reliability: 1

Species: Salmonella strains, S. typhimurium Results: Negative without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

1-METHOXY-2-PROPANOL

Method: Equivalent or similar to OECD 471 in vitro test

Reliability: 1
Species: S. typhimurium

Results: Negative with and without metabolic activation Method: Equivalent or similar to OECD 474 in vivo test

Reliability: 2

Species: Mouse (CD-1; male / female)

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Route of exposure: Intraperitoneal

Results: Negative

PROPANE

Method: OECD 471 in vitro test

Reliability: 1
Species: Histidine Salmonella

Results: Negative with or without metabolic activation

Method: OECD 474-test in vivo

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation (gas)

Results: Negative

ORANGE TERPENS

Method: OECD Guideline 471-in vitro test

Reliability: 1

Species: S. typhimurium, E. Coli

Results: Negative with or without metabolic activation

(R) -P-MENTHA-1,8-DIENE

Method: OECD 471 in vitro test

Reliability: 1
Species: S. typhimurium

Results: Negative with and without metabolic activation

Bibliographic reference:

Method: Comet assay (Tice et al., 2000) - in vivo test

Reliability: 2

Species: Rat (OFA Sprague-Dawley; male)

Route of exposure: Oral Results: Negative

carcinogenicity

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: Equivalent or similar to OECD 453

Reliability: 1

Species: Rat (F344 / N; male / female) Route of exposure: Inhalation (vapors) Results: NOAEC 138 mg / m³ air

1-METHOXY-2-PROPANOL

Method: OECD 453

Reliability: 1

Species: Rat (Fischer 344; male / female) Route of exposure: Inhalation (vapors)

Results: Negative

ORANGE TERPENS

Method: Equivalent or similar to OECD 452

Reliability: 2

Species: Mouse (B6C3F1; male / female)

Route of exposure: Oral

Results: LD50> = 250 - <= 500 mg / kg bw / day

(R) -P-MENTHA-1,8-DIENE

Method: Equivalent or similar to OECD 451

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Reliability: 2

Species: Mouse (B6C3F1; male / female)

Route of exposure: Oral Results: Negative

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

BUTANE

Method: OECD 413 Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation Results: NOAEC 10000 ppm

Adverse effects on sexual function and fertility

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD TG 413

Reliability: 1

Species: Rat (Fischer 344; male / female) Route of exposure: Inhalation (vapors)

Results: NOAEC> = 400 ppm

1-METHOXY-2-PROPANOL

Method: OECD 416

Reliability: 1

Species: Rat (Sprague-Dawley; male / female) Route of exposure: Inhalation (vapors) Results: Negative, NOAEL (fertility) = 300 ppm

PROPANE

Method: OECD 413

Reliability: 1

Species: Rat (Sprague-Dawley CD; male / female)

Route of exposure: Inhalation Results: NOAEC (fertility) 10 000 ppm

(R) -P-MENTHA-1,8-DIENE

Method: Equivalent or similar to OECD 408

Reliability: 2

Species: Mouse (B6C3F1; male / female)

Route of exposure: Oral

Results: Negative. NOAEL (fertility) = 500 mg / kg bw / day.

Adverse effects on development of the offspring

1-METHOXY-2-PROPANOL

Method: Equivalent or similar to OECD 414

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Inhalation

Results: Negative, NOAEL (development) = 3000 ppm

PROPANE

Method: EPA OPPTS 870.3700

Reliability: 1

Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) Crl: CD® IGS BR)

Route of exposure: Inhalation (gas)

Results: NOAEC (development) 10 426 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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

BUTANE

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

ISOBUTANE

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

1-METHOXY-2-PROPANOL

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

PROPANE

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

ORANGE TERPENS

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

(R) -P-MENTHA-1,8-DIENE

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

Target organ

1-METHÖXY-2-PROPANOL

Central nervous system

Route of exposure

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Dermal and inhalation

1-METHOXY-2-PROPANOL

inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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Method: Equivalent or similar to OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Oral

Results: NOAEL> = 1000 mg / kg / day Method: Equivalent or similar to OECD 413

Reliability: 1

Species: Rat (Albino; male / female) Route of exposure: Inhalation (vapors) Results: NOAEC 10186 mg / m3

BUTANE

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

ISOBUTANE

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

1-METHOXY-2-PROPANOL

Method: OECD 453

Reliability: 1

Species: Rat (Fischer 344: male / female) Route of exposure: Inhalation (vapors) Results: Negative, NOAEL = 300 ppm Method: Equivalent or similar to OECD 410

Reliability: 1

Species: Rabbit (New Zealand White; male / female)

Route of exposure: Dermal

Results: Negative, NOAEL> 1000 mg / kg bw / day

PROPANE

Method: OECD 422

Reliability: 1

Species: Rat (Sprague-Dawley; male / female)

Route of exposure: Inhalation (gas) Results: NOAEC 16 000 ppm

TERPENI D'ARANCIO

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

(R) -P-MENTHA-1,8-DIENE

Method: Equivalent or similar to OECD 409

Reliability: 2

Species: Dog (Beagle; male / female)

Route of exposure: Oral

Results: Negative. NOAEL = 100 mg / kg bw / day

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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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

(R)-P-MENTHA-1,8-DIENE

LC50 - for Fish 35 mg/l/96h Oncorhynchus mykiss EC50 - for Crustacea 69,6 mg/l/48h Daphnia pulex

1-METHOXY-2-PROPANOL

LC50 - for Fish 6812 mg/l/96h EC50 - for Crustacea 23300 mg/l/48h

TERPENI D'ARANCIO

EC50 - for Crustacea 16 mg/l/48h 15 mg/l/72h EC50 - for Algae / Aquatic Plants

12.2. Persistence and degradability

BUTANE

Quickly degradable in water. 1-METHOXY-2-PROPANOL Easily degradable in water, 4% in 28 days.

TERPENI D'ARANCIO

Rapidly biodegradable, 72% in 14 days.

(R) -P-MENTHA-1,8-DIENE

Rapidly degradable in water, 71.4% in 28 days.

BUTANE

0,1 - 100 mg/l Solubility in water

Rapidly degradable

(R)-P-MENTHA-1,8-DIENE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

PROPANE

0,1 - 100 mg/l Solubility in water

Rapidly degradable

1-METHOXY-2-PROPANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

BUTANE

Partition coefficient: n-octanol/water 1,09

(R)-P-MENTHA-1,8-DIENE

Partition coefficient: n-octanol/water 4,38 BCF 1022

PROPANE

Partition coefficient: n-octanol/water 1.09

1-METHOXY-2-PROPANOL

Partition coefficient: n-octanol/water < 1

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 greater than 0,1%.

12.6. 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.

BUTANE

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

ISOBUTANE

Compliance with local regulations, e.g. incineration through flaring system.

No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.

The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

1-METHOXY-2-PROPANOL

This product, when disposed of in its unused and uncontaminated state, must be treated as a hazardous waste according to EC Directive 91/689 / EEC. Disposal practices must comply with all national and provincial laws and local or local laws governing hazardous waste. Further evaluation may be required for used, contaminated and residual materials. Do not discharge into sewers, onto the ground or into any body of water.

ORANGE TERPENS

Recycling is preferable to disposal or burning. Disposal must be carried out according to official regulations. They must not be disposed of with household

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waste. Do not allow the product to reach the sewage system. European waste catalog: e.g. 02 03 03 wastes from solvent extraction.

Uncleaned packaging:

Recommendation: empty contaminated packaging carefully. They can be recycled after careful and correct cleaning. Packaging that cannot be cleaned is disposed of in the same way as the product.

Contaminated solids:

Recommendation: wet solids (eg cloth, pulp, filter panels, binder) can be burned after consulting the operator of the waste disposal facility and the competent authorities and adhering to the necessary technical standards. European waste catalog: e.g. 15 02 02 Filtering and absorption materials contaminated by dangerous agents.

(R) -P-MENTHA-1,8-DIENE

After a preliminary treatment, the product can be disposed of in a special waste incinerator in accordance with the rules relating to the disposal of special waste. Disposal must be carried out in accordance with local and national regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, 1950

IATA:

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 Tunnel Quantities: 1

Special Provision: -

restriction code: (D)

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IMDG:	EMS: F-D, S-U	Limited			
		Quantities: 1 L			
IATA:	Cargo:	Maximum	Packaging		
		quantity: 150	instructions:		
	D	Kg	203		
	Pass.:	Maximum	Packaging		
		quantity: 75	instructions:		

quantity: 75

Kg A145, A167,

A802

203

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

Special Instructions:

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 authorisation (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.

15.2. Chemical safety assessment

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A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Flam. Gas 1A Flammable gas, category 1A

Aerosol 1 Aerosol, category 1
Aerosol, category 3

Flam. Liq. 3 Flammable liquid, category 3

Press. Gas (Liq.) Liquefied gas
Press. Gas Pressurised gas

Acute Tox. 4 Acute toxicity, category 4

Asp. Tox. 1 Aspiration hazard, category 1

Eye Dam. 1 Serious eye damage, category 1

Skin Irrit. 2 Skin irritation, category 2
Skin Sens. 1 Skin sensitization, category 1

STOT SE 3 Specific target organ toxicity - single exposure, category 3

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.

H226 Flammable liquid and vapour.

H280 Contains gas under pressure; may burst if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.H336 May cause drowsiness or dizziness.

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%

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- 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
- PFI: 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).

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) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

- 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- 10. Regulation (EÚ) 2015/1221 (VII Atp. CLP) of the European Parliament
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- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP) 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- 16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. 10th Edition
- Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

Note for users:

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

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

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

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

Product's classification is based on the calculation methods set out in Annex I of the CLP Regulation, unless otherwise indicated in sections 11 and 12. The data for evaluation of chemical-physical properties are reported in section 9.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 15 / 16.