

4110021285 - DECARBONIZING SPRAY 120ML

Safety Data Sheet

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

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

1.1. Product identifier

Code: **4110021285**
 Product name: **DECARBONIZING SPRAY 120ML**
 UFI: **F9H2-81DU-940Y-GYTM**

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

Intended use: **Diesel and petrol tank decarbonizer**

1.3. Details of the supplier of the safety data sheet

Name: **Meccanocar Italia S.r.l.**
 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**
 Supplier:

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 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Acute toxicity, category 4	H332	Harmful if inhaled.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory 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.

4110021285 - DECARBONIZING SPRAY 120ML**2.2. Label elements**

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

Hazard pictograms:



Signal words: Danger

Hazard statements:

H225 Highly flammable liquid and vapour.

H351 Suspected of causing cancer.

H332 Harmful if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing [dust / fume / gas / mist / vapours / spray].

P280 Wear protective gloves / eye protection / face protection.

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

P308+P311 IF exposed or concerned: call a POISON CENTER / doctor / . . .

P310 Immediately call a POISON CENTER/doctor.

Contains: DICHLOROMETHANE
 ISO-BUTANOL
 2-ETHYLHEXANOL

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ACETONE

2.3. Other hazards

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

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

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
2-ETHYLHEXANOL		
INDEX -	$37,5 \leq x < 40$	Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335
EC 203-234-3		ATE Inhalation vapours: 11 mg/l, ATE Inhalation mists/powders: 1,5 mg/l
CAS 104-76-7		
REACH Reg. 01-2119487289-20-XXXX		
ISO-BUTANOL		
INDEX 603-108-00-1	$35 \leq x < 37,5$	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
EC 201-148-0		
CAS 78-83-1		
REACH Reg. 01-2119484609-23-XXXX		
DICHLOROMETHANE		
INDEX 602-004-00-3	$12 \leq x < 13,5$	Carc. 2 H351
EC 200-838-9		
CAS 75-09-2		
REACH Reg. 01-2119480404-41-XXXX		
ACETONE		
INDEX 606-001-00-8	$12 \leq x < 13,5$	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2		
CAS 67-64-1		
REACH Reg. 01-2119471330-49-XXXX		
ISOTRIDECANOL, ETHOXYLATED		
INDEX -	$2 \leq x < 2,5$	Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412
EC 500-241-6		
CAS 69011-36-5		

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

SECTION 4. First aid measures

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In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention.

Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

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

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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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**

Evacuate area. Send away individuals who are not suitably equipped. Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Use breathing equipment if powders are released into the air.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water. Avoid the formation of powder and dispersion of the product in the air.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. Make sure the leakage site is well aired. It may be advisable to wash with water any surfaces contaminated with traces of dust, without contaminating waste water.

6.4. Reference to other sections

Notify the competent authorities if the product has reached waterways or if it has contaminated the ground or vegetation.

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection**8.1. Control parameters**

Regulatory references:

ESP España
FRA France

Límites de exposición profesional para agentes químicos en España 2023
Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021

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ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU	Lietuva	Jsakymas dėl lietuvos higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2023

2-ETHYLHEXANOL

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,017	mg/l
Normal value in marine water	0,002	mg/l
Normal value for fresh water sediment	0,284	mg/kg
Normal value for marine water sediment	0,028	mg/kg
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	55	mg/kg
Normal value for the terrestrial compartment	0,047	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,1 mg/kg bw/d				
Inhalation	26,6 mg/m3		26,6 mg/m3	2,3 mg/m3	53,2 mg/m3		53,2 mg/m3	12,8 mg/m3
Skin				11,4 mg/kg bw/d				23 mg/kg bw/d

ISO-BUTANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	154	50			
VLEP	FRA	150	50			
RD	LTU	10				SKIN
TLV	NOR	75	25			SKIN
NDS/NDSCh	POL	100		200		SKIN
WEL	GBR	154	50	231	75	
TLV-ACGIH		152	50			

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,4	mg/l
Normal value in marine water	0,04	mg/l
Normal value for fresh water sediment	1,56	mg/kg
Normal value for marine water sediment	0,156	mg/kg

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Normal value of STP microorganisms 10 mg/l

Normal value for the terrestrial compartment 0,076 mg/kg

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			55 mg/m3				310 mg/m3	

ACETONE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLEP	FRA	1210	500	2420 1000
VLEP	ITA	1210	500	
RD	LTU	1210	500	2420 1000
TLV	NOR	295	125	
VLE	PRT	1210	500	
NDS/NDSCh	POL	600		1800
WEL	GBR	1210	500	3620 1500
OEL	EU	1210	500	
TLV-ACGIH			250	500

Predicted no-effect concentration - PNEC

Normal value in fresh water 10,6 mg/l

Normal value in marine water 1,06 mg/l

Normal value for fresh water sediment 30,4 mg/kg

Normal value for marine water sediment 3,04 mg/kg

Normal value of STP microorganisms 100 mg/l

Normal value for the terrestrial compartment 29,5 mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				62 mg/kg bw/d				
Inhalation				200 mg/m3			2420 mg/m3	1210 mg/m3
Skin				62 mg/kg bw/d				186 mg/kg bw/d

DICHLOROMETHANE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
VLA	ESP	177	50	353 100 SKIN
VLEP	FRA	178	50	356 100 SKIN
VLEP	ITA	175	50	353 100 SKIN
RD	LTU	120	35	250 70 SKIN
TLV	NOR	50	15	150 45 SKIN

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VLE	PRT	353	100	706	200	SKIN
NDS/NDSCh	POL	88		353		SKIN
WEL	GBR	353	100	706	200	SKIN
OEL	EU	353	100	706	200	SKIN
TLV-ACGIH		174	50			

Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,31	mg/l	
Normal value in marine water				0,031	mg/l	
Normal value for fresh water sediment				2,57	mg/kg	
Normal value for marine water sediment				0,26	mg/kg	
Normal value of STP microorganisms				26	mg/l	
Normal value for the terrestrial compartment				0,33	mg/kg	

Health - Derived no-effect level - DNEL / DMEL								
Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,06 mg/kg bw/d				
Inhalation		353 mg/m3		88,3 mg/m3		706 mg/m3		353 mg/m3
Skin				5,82 mg/kg bw/d				12 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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

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Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

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

RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type AX filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

2-ETHYLHEXANOL

Tightly fitting safety glasses. In addition to glasses, wear a face shield if there is a reasonable possibility of splashes on your face.

The equipment must comply with EN 166.

Hand protection: suitable material nitrile rubber

Evaluation according to EN 374: level 6

Glove thickness approximately 0.55 mm

Breakthrough time > 480 min

Glove thickness approximately 0.8 mm

Breathing protection: filter respirator A. Full face mask with filter mentioned above according to manufacturers using requirements or self-contained breathing apparatus. Equipment must comply with EN 136 or EN 140 and EN 143.

ISO-BUTANOL

Suitable safety gloves resistant to chemicals (EN 374) even with prolonged direct contact (Recommended: protection index 6, corresponding to > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

The manufacturer's instructions for use must be observed due to the large variety of types.

Additional note: Specifications are based on tests, literature data and information from glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature), it must be considered that the practical use of a chemical protective glove in practice can be much shorter than the breakthrough time determined through testing.

ACETONE

Protective gloves according to EN 374.

Glove material: Butyl rubber (butyl rubber) - Layer thickness > = 0.5 mm.

Penetration time: > 480 min.

Observe the glove manufacturer's instructions regarding penetrability and breakthrough time.

DICHLOROMETHANE

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In case of intense contact, wear protective gloves (EN 374). Sufficient protection is provided by wearing suitable protective gloves checked according to EN 374, in case of risk of skin contact of the product. Before use, the protective glove should be tested in each case for workstation-specific suitability (i.e. mechanical strength, product compatibility and antistatic properties). Follow the manufacturer's instructions and information regarding the use, storage, care and replacement of protective gloves. Protective gloves must be replaced immediately if damaged or physically worn. Design operations in such a way as to avoid permanent use of protective gloves.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	yellow	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	> 35 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	< 23 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	5	
Kinematic viscosity	>20,5 mm ² /sec	Temperature: 40 °C
Solubility	not available	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,88	
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

ACETONE

Decomposes under the effect of heat.

Acetone reacts in the presence of bases. Vapor forms potentially explosive mixtures with air. Heavier than air, they ride at floor level and can flash a great distance when turned on. It can charge electrostatically.

DICHLOROMETHANE

Decomposes at temperatures above 120°C/248°F.

With water and alkalis it may form hydrochloric acid and attack aluminium, copper and alloys.

10.2. Chemical stability

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

2-ETHYLHEXANOL

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

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

ISO-BUTANOL

Reacts with strong oxidizing agents

ACETONE

Risk of explosion on contact with: bromine trifluoride,fluorine dioxide,hydrogen peroxide,nitrosyl chloride,2-methyl-1,3 butadiene,nitromethane,nitrosyl perchlorate.May react dangerously with: potassium tert-butoxide,alkaline hydroxides,bromine,bromoform,isoprene,sodium,sulphur dioxide,chromium trioxide,chromyl chloride,nitric acid,chloroform,peroxymonosulphuric acid,phosphoryl oxychloride,chromosulphuric acid,fluorine,strong oxidising agents,strong reducing agents.Develops flammable gas on contact with: nitrosyl perchlorate.

DICHLOROMETHANE

Risk of explosion on contact with: alkaline metals,nitric acid,aluminium powder,ethanediamine,aluminium chloride,perchloric acid,dinitrogen pentoxide,sodium nitride,n-nitroso n-methylurea,potassium hydroxide.May react dangerously with: alkaline earth metals,metal powders,sodium amides,potassium tert-butylate.May form explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

2-ETHYLHEXANOL

Avoid contact with heat, sparks, open flames and static discharge. Avoid any source of ignition.

ACETONE

Avoid exposure to: sources of heat, naked flames.

Highly flammable. Concentrated vapors are heavier than air. Forms explosive mixtures with air, even in empty and uncleaned containers. May produce, if mixed with chlorinated hydrocarbons and exposed to light, highly irritating chloric acetone.

DICHLOROMETHANE

Avoid exposure to: naked flames, overheated surfaces.

10.5. Incompatible materials

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

2-ETHYLHEXANOL

Oxidizing agents.

ISO-BUTANOL

Strong oxidizing agents

ACETONE

Incompatible with: acids, oxidising substances.

Attacks many plastics and rubbers. Condensation may form when in contact with barium hydroxide, sodium hydroxide and many other alkaline materials. Avoid contact with strong oxidizing agents, alkalis and amines.

DICHLOROMETHANE

Incompatible with: aluminium, magnesium, sodium, potassium, nitric acid, caustic substances, strong oxidants.

Reactions with alkali metals. Reactions with alkaline earth metals. Aluminum powder; Reactions with powdered metals. Reactions with alkali. Reactions with strong acids. Reactions with strong oxidizing agents. Zinc

10.6. Hazardous decomposition products

ACETONE

May develop: ketenes, irritant substances.

In the event of a fire, the following may be released: carbon monoxide and carbon dioxide.

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DICHLOROMETHANE

May develop: dioxins, phosgenes, hydrochloric acid.

Hydrochloric acid (HCl); Possible traces: carbon monoxide; Chlorine; Phosgene.

SECTION 11. Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

DICHLOROMETHANE

WORKERS: inhalation; contact with the skin.

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

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

DICHLOROMETHANE

The acute toxic effect on humans causes cognitive disorders, if inhaled in large doses. At 200-500 ppm, nausea, vomiting, dizziness, paresthesia, fatigue and headache appear. Skin contact causes pain, which soon disappears without leaving any burns. Prolonged contact may cause chemical burns. Contact with the eyes causes superficial lesions of the cornea. Cases of dermatosis may ensue from repeated contact.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture:	3,95 mg/l
ATE (Inhalation - vapours) of the mixture:	Acute Tox. 4
ATE (Inhalation - gas) of the mixture:	Acute Tox. 4
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

2-ETHYLHEXANOL

LD50 (Dermal):	> 3000 mg/kg Rat
LD50 (Oral):	2047 mg/kg Rat

DICHLOROMETHANE

LC50 (Inhalation vapours):	86 mg/l/4h Rat
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ISOTRIDECANOL, ETHOXYLATED

LD50 (Dermal):	5960 mg/kg Rabbit - New Zeland white
LD50 (Oral):	> 2000 mg/kg Rat - Wistar
LC50 (Inhalation vapours):	> 1,6 mg/l Rat - Sprague-Dawley

2-ETHYLHEXANOL

Method: Equivalent or similar to OECD 401

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Reliability: 2

Species: Rat (Wistar; male)

Route of exposure: Oral

Results: LD50: approx. 2047 mg/kg bw

Method: Equivalent or similar to OECD 403

Reliability: 2

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

Route of exposure: Inhalation (vapour+aerosol)

Results: LC50: > 0.89 - <= 5.3 mg/L air

Method: OECD 402

Reliability: 1

Species: Rat (WISW (SPF TNO); male/female)

Route of exposure: Dermal

Results: not classified

ISO-BUTANOL

Method: OECD 401

Reliability: 1

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

Route of exposure: Oral

Results: LD50>2830 mg/kg bw

Method: OECD 402

Reliability: 1

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

Route of exposure: Inhalation

Results: LD50>2000 mg/kg bw

Method: OECD 402

Reliability: 1

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

Route of exposure: Dermal

Results: LD50>2000 mg/kg bw

ACETONE

Method: Not indicated

Reliability: 2

Species: Rat (Sprague-Dawley)

Route of exposure: Oral

Results: LD50=5800 mg/kg bw

Bibliographical reference: Acetone potentiation of acute acetonitrile toxicity, Freeman JJ, Hayes EP (1985)

DICHLOROMETHANE

Method: OECD 401

Reliability: 1

Species: Rat (Wistar; male/female)

Route of exposure: Oral

Results: LD50>2000 mg/kg bw

Method: Not indicated

Reliability: 2

Species: Mouse (Swiss-Webster)

Route of exposure: Inhalation (vapours)

Results: LC50=49000 mg/m3 air

Bibliographic reference:

The toxicity and narcotic action of mono-chloromono- bromo-methane with special reference to inorganic and volatile bromide in blood, urine and brain, Svrbely JL, Highman B, Alford WF, (1947)

Method: OECD 402

Reliability: 1

Species: Rat (Wistar; male/female)

Route of exposure: Dermal

Results: LD50>2000 mg/kg bw

SKIN CORROSION / IRRITATION

Causes skin irritation

4110021285 - DECARBONIZING SPRAY 120ML**2-ETHYLHEXANOL**

Method: OECD 404

Reliability: 1

Species: Rabbit (Small Russian)

Route of exposure: Dermal

Results: Highly irritating

DICHLOROMETHANE

Method: OECD 404

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Category 2 (irritant)

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

2-ETHYLHEXANOL

Method: OECD 405

Reliability: 1

Species: Rabbit (Small Russian)

Route of exposure: Ocular

Results: Category 2, eye irritant

ISO-BUTANOL

Method: OECD 405

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Corrosive

DICHLOROMETHANE

Method: Not indicated

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Category 2 (eye irritant)

Bibliographic reference: Ophthalmic toxicology of dichloromethane, Ballantyne B, Gazzard MF, Swanson DW (1976)

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

ISO-BUTANOL

Method: QSAR

Reliability: 1

Species: Not indicated

Route of exposure: Dermal

Results: Not classified

ACETONE

Method: Not indicated

Reliability: 2

Species: Guinea pig (Hartley; female)

Route of exposure: Dermal

Results: Not sensitizing

Bibliographic reference: A new protocol and criteria for quantitative determination of sensitization potencies of chemicals by guinea pig maximization test, Nakamura A, Momma J, Sekiguchi H, Noda T, Yamano T, Kaniwa M-A, Kojima S, Tsuda M, Kurokawa Y (1994)

DICHLOROMETHANE

Method: OECD 429

4110021285 - DECARBONIZING SPRAY 120ML

Reliability: 1
Species: Mouse (CBA; female)
Route of exposure: Dermal
Results: Not classified

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

2-ETHYLHEXANOL

Method: OECD 471-in vitro test

Reliability: 1

Species: *S. typhimurium*, *E. coli*

Results: Negative with and without metabolic activation

Method: Equivalent or similar to OECD 474-in vivo test

Reliability: 2

Species: Mouse (B6C3F1; male/female)

Route of exposure: Dermal

Results: Negative

ISO-BUTANOL

Method: Not indicated - in vitro test

Reliability: 2

Species: Chinese hamster

Results: Negative with and without metabolic activation

Bibliographic reference: Evaluation of the genotoxic potential of some microbial volatile organic compounds (MVOC) with the comet assay, the micronucleus assay and the HPRT gene mutation assay, Kreja L, Seidel H-J (2002)

Method: OECD 474-in vivo test

Reliability: 1

Species: Mouse (NMRI; male/female)

Route of exposure: Oral

Results: Negative

DICHLOROMETHANE

Method: Equivalent or similar to OECD 471-in vitro test

Reliability: 2

Species: *S. typhimurium*

Results: Positive with and without metabolic activation

Method: OECD 474-in vivo test

Reliability: 1

Species: Mouse (C57BL; male/female)

Route of exposure: Oral

Results: Negative

CARCINOGENICITY

Suspected of causing cancer

2-ETHYLHEXANOL

Method: Equivalent or similar to OECD 451

Reliability: 1

Species: Rat (Fischer 344; male/female)

Route of exposure: Oral

Results: Negative

ACETONE

Method: Not indicated

Reliability: 2

Species: Mouse (ICR; female)

Route of exposure: Dermal

Results: Negative

Bibliographic reference: Mouse skin carcinogenicity tests of the flame retardants tris(2,3-dibromopropyl)phosphate, tetrakis(hydroxymethyl)phosphonium chloride, and polyvinyl bromide, Van Duuren BL, Loewengart G, Seldman I, Smith AC, Melchionne S (1974)

4110021285 - DECARBONIZING SPRAY 120ML**DICHLOROMETHANE**

Classified in Group 2A (probable human carcinogen) by the International Agency for Research on Cancer (IARC).
Classified as "probable carcinogen" by the US National Toxicology Program (NTP) - (US DHHS, 2014).

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

2-ETHYLHEXANOL

Method: OECD 416

Reliability: 2

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

Route of exposure: Oral

Results: Negative. NOAEL=3000 ppm

Adverse effects on sexual function and fertility**ISO-BUTANOL**

Method: EPA OPPTS 870.3800

Reliability: 1

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

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEL (fertility) \geq 7.5 mg/L air

DICHLOROMETHANE

Method: Equivalent or similar to OECD 416

Reliability: 1

Species: Rat (Fischer 344; male/female)

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEC (fertility) \geq 1500 ppm

Adverse effects on development of the offspring**ISO-BUTANOL**

Method: OECD 414

Reliability: 1

Species: Rat (Wistar)

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEL (development)=10 mg/L air

ACETONE

Method: Equivalent or similar to OECD 414

Reliability: 1

Species: Rat (Sprague-Dawley)

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEC (development)=2200 ppm

DICHLOROMETHANE

Method: Equivalent or similar to OECD 414

Reliability: 2

Species: Rat (Sprague-Dawley) and mouse (Swiss-Webster)

Route of exposure: Inhalation (vapours)

Results: NOAEC (development) \geq 4300 mg/m³ air

STOT - SINGLE EXPOSURE

May cause respiratory irritation

May cause drowsiness or dizziness

4110021285 - DECARBONIZING SPRAY 120ML**2-ETHYLHEXANOL**

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

ISO-BUTANOL

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

ACETONE

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

DICHLOROMETHANE

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

Target organs**2-ETHYLHEXANOL**

Respiratory tract

ISO-BUTANOL

Respiratory tract

ACETONE

Narcotic effects

Route of exposure**2-ETHYLHEXANOL**

Inhalation

ACETONE

Inhalation

STOT - REPEATED EXPOSURE

May cause damage to organs

2-ETHYLHEXANOL

Based on available data and expert judgement, the substance is not classified in the repeated exposure target organ toxicity class.

ISO-BUTANOL

Method: OECD 408

Reliability: 1

Species: Rat (Wistar; male/female)

Route of exposure: Oral

Results: Negative, NOAEL>1450 mg/kg bw/day

Method: EPA OPPTS 870.3800

Reliability: 1

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

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEL=7.5 mg/L air

ACETONE

Method: Equivalent or similar to OECD 408

Reliability: 1

Species: Rat (Fischer 344; male/female)

Route of exposure: Oral

Results: Negative, NOAEL=10000 ppm

Method: Not indicated

Reliability: 2

4110021285 - DECARBONIZING SPRAY 120ML

Species: Rat (Sprague-Dawley; male)

Route of exposure: Inhalation

Results: Negative, NOAEC=19000 ppm

Bibliographic reference: Evaluation of toluene and acetone inhalant abuse. II. Model development and toxicology, Bruckner JV, Peterson RG (1981)

Method: Not indicated

Reliability: 2

Species: Not indicated

Route of exposure: Dermal

Results: Negative

Bibliographic reference: Pathology of aging female SENCAR mice used as controls in skin two-stage carcinogenesis studies, Ward J, Quander RD, Wenk M, Spangler E (1986)

DICHLOROMETHANE

Method: Equivalent or similar to OECD 453

Reliability: 2

Species: Rat (Fischer 344; male/female)

Route of exposure: Oral

Results: Negative, NOAEL=6 mg/kg bw/day

Method: Equivalent or similar to OECD 453

Reliability: 1

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

Route of exposure: Inhalation (vapours)

Results: Negative, NOAEC=200 ppm

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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

SECTION 12. Ecological information

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

12.1. Toxicity**DICHLOROMETHANE**

EC10 for Algae / Aquatic Plants 550 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants 550 mg/l

ISOTRIDECANOL, ETHOXYLATED

LC50 - for Fish 2,5 mg/l/96h Danio rerio

EC50 - for Crustacea 1,5 mg/l/48h Daphnia magna

2-ETHYLHEXANOL

LC50 - for Fish 17,1 mg/l/96h

EC50 - for Crustacea 39 mg/l/48h

EC50 - for Algae / Aquatic Plants 16,6 mg/l/72h

EC10 for Algae / Aquatic Plants 5,3 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants 5,3 mg/l

12.2. Persistence and degradability**2-ETHYLHEXANOL**

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Rapidly degradable, 96% in 9 days (OECD TG 301 C)

ISO-BUTANOL

Easily degradable in water, 70-80% in 28 days.

ACETONE

Easily degradable in water, 90.9% in 28 days.

DICHLOROMETHANE

Easily degradable in water, 81% in 14 days.

ACETONE

Rapidly degradable

ISO-BUTANOL

Solubility in water

1000 - 10000 mg/l

Rapidly degradable

DICHLOROMETHANE

Solubility in water

13200 mg/l

Rapidly degradable

ISOTRIDECANOL, ETHOXYLATED

Solubility in water

20 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

ACETONE

Partition coefficient: n-octanol/water

-0,23

BCF

3

ISO-BUTANOL

Partition coefficient: n-octanol/water

1

DICHLOROMETHANE

Partition coefficient: n-octanol/water

1,25

BCF

2

ISOTRIDECANOL, ETHOXYLATED

Partition coefficient: n-octanol/water

6,4

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 \geq than 0,1%.

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

2-ETHYLHEXANOL

Product Information: Disposal required in accordance with all state and local waste management regulations. The choice of

The appropriate disposal method depends on the composition of the product based on the disposal time and location status and possibility of disposal.

Hazardous waste according to the European Waste Catalog (CAE)

ISO-BUTANOL

They must be disposed of or incinerated in accordance with local regulations.

ACETONE

Incinerate as hazardous waste in accordance with applicable local, state and federal regulations. Do not throw in household waste.

DICHLOROMETHANE

The assignment of a waste code number, according to the European Waste Catalogue, should be carried out in accordance with the regional waste disposal company. After use, this solvent must be taken to waste disposal or waste disposal, any mixture of foreign bodies or other solvents is prohibited after use.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1993

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, N.O.S.

IMDG: FLAMMABLE LIQUID, N.O.S.

IATA: FLAMMABLE LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



14.4. Packing group

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ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO
 IMDG: not marine pollutant
 IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 lt	Tunnel restriction code: (D/E)
	Special provision: 274, 601, 640(C-D)		
IMDG:	EMS: F-E, <u>S-E</u>	Limited Quantities: 1 lt	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Passengers:	Maximum quantity: 5 L	Packaging instructions: 353
	Special provision:	A3	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU: P5c

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

Point 3 - 40

Contained substance

Point 75

Point 59 DICHLOROMETHANE REACH Reg.:
01-2119480404-41-XXXX

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

Regulated explosives precursor

The acquisition, introduction, possession or use of that regulated explosives precursor by members of the general public is subject to reporting obligations as set out in Article 9.

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All suspicious transactions and significant disappearances and thefts must be reported to the relevant national contact point.

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

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. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H351	Suspected of causing cancer.

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H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)

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- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- 23. Delegated Regulation (UE) 2023/707
- 24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
- 24. Delegated Regulation (UE) 2023/1435 (XX 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.

CALCULATION METHODS FOR CLASSIFICATION

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

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

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