

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 20860-6395
Product name: UNLOCKING FOR INJECTORS

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

Intended use: Spray for the removal of carbon residues

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

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 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements

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

UNLOCKING FOR INJECTORS

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H351	Suspected of causing cancer.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P202	Do not handle until all safety precautions have been read and understood.

Contains: DICHLOROMETHANE
ACETONE

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)
DICHLOROMETHANE		
CAS 75-09-2	40 ≤ x < 42,5	Carc. 2 H351
EC 200-838-9		
INDEX 602-004-00-3		
Reg. no. 01-2119480404-41-XXXX		
ACETONE		
CAS 67-64-1	20 ≤ x < 21,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC 200-662-2		
INDEX 606-001-00-8		
Reg. no. 01-2119471330-49-XXXX		

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PETROLEUM GAS, LIQUEFIED

CAS 68476-85-7

19,5 ≤ x < 21

Flam. Gas 1A H220, Press. Gas (Comp.) H280, Classification note according to Annex VI to the CLP Regulation: K

EC 270-704-2

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Reg. no. 01-2119485911-31-XXXX

DIMETHPYMETANE

CAS 109-87-5

19,5 ≤ x < 21

Flam. Liq. 2 H225, Acute Tox. 4 H302, Skin Sens. 1 H317, Aquatic Chronic 2 H411

EC 203-714-2

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Reg. no. 01-2119664781-31-XXXX

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

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 0,00 %

SECTION 4. First aid measures**4.1. Description of first aid measures**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless 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

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breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Information not available

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

Regulatory References:

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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

DICHLOROMETHANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	178	50	336	100	SKIN
WEL	GBR	353	100	706	200	SKIN
VLEP	ITA	353	100	706	200	SKIN
TLV	NOR	50	15	150	45	SKIN
VLE	PRT	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

DIMETHPYMETANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,005	mg/l
Normal value in fresh water	14,577	mg/l
Normal value in marine water	0,001	mg/l
Normal value in marine water	1,477	mg/l
Normal value for fresh water sediment	0,02	mg/kg
Normal value for fresh water sediment	13,135	mg/kg
Normal value for marine water sediment	0,002	mg/kg
Normal value for marine water sediment	1,313	mg/kg

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Normal value of STP microorganisms	2,6	mg/l
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	0,001	mg/kg
Normal value for the terrestrial compartment	4,654	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				18,1 mg/kg bw/d				
Inhalation				31,5 mg/m3				126,6 mg/m3
Skin				18,1 mg/kg bw/d				17,9 mg/kg bw/d

PETROLEUM GAS, LIQUEFIED								
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				0,066 mg/m3				2,21 mg/m3
Skin								23,4 mg/kg bw/d

ACETONE						
Threshold Limit Value						
Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	FRA	1210	500	2420	1000	
WEL	GBR	1210	500	3620	1500	
VLEP	ITA	1210	500			
TLV	NOR	295	125			
VLE	PRT	1210	500			
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

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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.

DICHLOROMETHANE

In case of intense contact, wear protective gloves (EN 374). Sufficient protection is provided by wearing appropriate protective gloves checked according to EN 374, in case of risk of contact with the skin of the product. Before use, the protective glove should be tested in any case for the specific suitability of the workstation (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 the operations in such a way as to avoid permanent use of protective gloves.

ACETONE

Protective gloves according to EN 374.

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

Breakthrough time: > 480 min.

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	colourless
Odour	solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	< 35 °C
Boiling range	35 °C
Flash point	< 0 °C
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
Vapour density	Not available
Relative density	0,98
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

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

DICHLOROMETHANE

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

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

DIMETHPYMETANE

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Sensitive to humidity.

ACETONE

Decomposes under the effect of heat.

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

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.

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.

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.

10.4. Conditions to avoid

Avoid overheating.

DICHLOROMETHANE

Avoid exposure to: naked flames,overheated surfaces.

DIMETHPYMETANE

Keep away from heat, sparks and open flame. Protect from light.
Protect from moisture and water.

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. It can produce, if mixed with chlorinated hydrocarbons and exposed to light, highly irritating chlorine acetone.

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10.5. Incompatible materials

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

DICHLOROMETHANE

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

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

DIMETHPYMETANE

Water, acids, alkalis.

ACETONE

Incompatible with: acids,oxidising substances.

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

10.6. Hazardous decomposition products**DICHLOROMETHANE**

May develop: dioxins,phosgenes,hydrochloric acid.

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

ACETONE

May develop: ketenes,irritant substances.

In case of fire the following can be released: carbon monoxide and carbon dioxide.

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

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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

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)

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 (vapors)

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

DIMETHPYMETANE

Method: Equivalent or similar to OECD Guideline 401

Reliability: 2

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

Route of exposure: Oral

Results: LD50 ca. 0.88 mL / kg bw

Method: Equivalent or similar to OECD Guideline 402

Reliability: 2

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

Route of exposure: Dermal

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Results: LD50 ca. 2.46 mL / kg bw

PETROLEUM GAS, LIQUEFIED

Method: Not indicated-Read across

Reliability: 2

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

Route of exposure: Inhalation

Results: Not classified, LC50 = 1443 mg / L air

ACETONE

Method: Not indicated

Reliability: 2

Species: Rat (Sprague-Dawley)

Route of exposure: Oral

Results: LD50 = 5800 mg / kg bw

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

SKIN CORROSION / IRRITATION

Causes skin irritation

DICHLOROMETHANE

Method: OECD 404

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Category 2 (irritant)

DIMETHPYMETANE

Method: OECD 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

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)

DIMETHPYMETANE

Method: Equivalent or similar to OECD 405

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Not indicated

UNLOCKING FOR INJECTORSRESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

DICHLOROMETHANE

Method: OECD 429

Reliability: 1

Species: Mouse (CBA; female)

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 MA, Kojima S, Tsuda M, Kurokawa Y (1994)

Skin sensitization

DIMETHPYMETANE

Method: OECD Guideline 406

Reliability: 1

Species: guinea pig (Dunkin-Hartley; male)

Route of exposure: Dermal

Results: Positive, category 1B

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

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-test in vivo

Reliability: 1

Species: Mouse (C57BL; male / female)

Route of exposure: Oral

Results: Negative

DIMETHPYMETANE

Method: OECD Guideline 471-in vitro test

Reliability: 1

Species: *S. typhimurium*

Results: Negative with or without metabolic activation

PETROLEUM GAS, LIQUEFIED

Method: OECD 471-in vitro test-Read across

Reliability: 1

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Species: *S. typhimurium*
Results: Negative with and without metabolic activation
Method: OECD 474-Read across
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: Negative

CARCINOGENICITY

Suspected of causing cancer

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).

PETROLEUM GAS, LIQUEFIED

Method: Equivalent or similar to EPA OPP 83-5-Read across
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: LOAEL = 25 mg / kg bw / day

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)

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

DICHLOROMETHANE

Method: Equivalent or similar to OECD 416
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (fertility) > = 1500 ppm

PETROLEUM GAS, LIQUEFIED

Method: OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation
Results: Negative, NOAEC (fertility) = 10000 ppm

Adverse effects on development of the offspring

DICHLOROMETHANE

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Method: Equivalent or similar to OECD 414
Reliability: 2
Species: Rat (Sprague-Dawley) and mouse (Swiss-Webster)
Route of exposure: Inhalation (vapors)
Results: NOAEC (development) > = 4300 mg / m3 air

DIMETHPYMETANE

Method: OECD 414
Reliability: 1
Species: Rat (CrI: CDRBRVAF / plus)
Route of exposure: Inhalation (vapors)
Results: NOEL (development) = 1954 ppm

PETROLEUM GAS, LIQUEFIED

Method: OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: Negative, NOAEC (development) = 10426 ppm

ACETONE

Method: Equivalent or similar to OECD 414
Reliability: 1
Species: Rat (Sprague-Dawley)
Route of exposure: Inhalation (vapors)
Results: Negative, NOAEC (development) = 2200 ppm

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

DICHLOROMETHANE

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

DIMETHPYMETANE

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

PETROLEUM GAS, LIQUEFIED

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

ACETONE

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

Target organ
ACETONE

Narcotic effects

Route of exposure
ACETONE

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Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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 (vapors)

Results: Negative, NOAEC = 200 ppm

DIMETHPYMETANE

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

PETROLEUM GAS, LIQUEFIED

Method: OECD 413

Reliability: 1

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

Route of exposure: Inhalation (gas)

Results: NOAEC = 10000 ppm

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

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)

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information**12.1. Toxicity**

DICHLOROMETHANE

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

Chronic NOEC for Algae / Aquatic Plants 550 mg/l

DIMETHPYMETANE

LC50 - for Fish 1 mg/l/96h

LC50 - for Fish 345 mg/l/96h

EC50 - for Crustacea 5,3 mg/l/48h

EC50 - for Crustacea 1200 mg/l/48h

EC50 - for Algae / Aquatic Plants 732 mg/l/72h

EC50 - for Algae / Aquatic Plants 874,12 mg/l/72h

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

EC10 for Algae / Aquatic Plants 145,77 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants 72 mg/l

Chronic NOEC for Algae / Aquatic Plants 145,77 mg/l

12.2. Persistence and degradability

DICHLOROMETHANE

ACETONE

Easily degradable in water, 90.9% in 28 days.

ACETONE

Rapidly degradable

DICHLOROMETHANE

Solubility in water 13200 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

ACETONE

Partition coefficient: n-octanol/water -0,23

BCF 3

DICHLOROMETHANE

Partition coefficient: n-octanol/water 1,25

BCF 2

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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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.

DICHLOROMETHANE

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

ACETONE

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

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**

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ADR / RID, IMDG, -
IATA:

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special Provision: - EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

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

Information not relevant

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

Seveso Category - Directive 2012/18/EC: P3a

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

Product

Point 40

Contained substance

Point 59 DICHLOROMETHAN
E Reg. no.: 01-
2119480404-41-
XXXX

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%.

UNLOCKING FOR INJECTORSSubstances 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

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 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Press. Gas (Comp.)	Compressed gas
Carc. 2	Carcinogenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H351	Suspected of causing cancer.
H302	Harmful if swallowed.

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H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

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

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
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 14. Regulation (EU) 2018/669 (XI Atp. CLP)
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 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

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- 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.