

# 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 14655-2743**  
Product name: **PERMANENT SPRAY ADHESIVE**

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

Intended use: **Multi-purpose aerosol adhesive**

### 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.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

### 2.2. Label elements

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

**PERMANENT SPRAY ADHESIVE**

Hazard pictograms:



Signal words: Danger

Hazard statements:

**H222** Extremely flammable aerosol.  
**H229** Pressurised container: may burst if heated.  
**H315** Causes skin irritation.  
**H336** May cause drowsiness or dizziness.  
**H411** Toxic 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.  
**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.

**Contains:** HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES  
 HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE  
 CYCLOHEXANE

**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)
<b>METHYL OXIDE DIMETHYLETER</b>		
CAS 115-10-6	62 ≤ x < 66	Flam. Gas 1A H220, Press. Gas H280
EC 204-065-8		
INDEX -		
Reg. no. 01-2119472128-37-XXXX		
<b>CYCLOHEXANE</b>		
CAS 110-82-7	20 ≤ x < 21,5	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 203-806-2		
INDEX 601-017-00-1		
Reg. no. 01-2119463273-41-XXXX		

## PERMANENT SPRAY ADHESIVE

**HYDROCARBONS, C6,  
ISOALKANS, <5% N-HEXANE**

CAS 64742-49-0

 $8 \leq x < 9$ 

Asp. Tox. 1 H304, EUH066

EC 931-254-9

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Reg. no. 01-2119484651-34-XXXX

**HYDROCARBONS, C7, N-  
ALCANS, ISOALKANS, CYCLES**

CAS

64742-49-0

 $7 \leq x < 8$ Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336,  
Aquatic Chronic 2 H411

EC 927-510-4

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Reg. no. 01-2119475515-33-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: 65,00 %

**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. 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

**PERMANENT SPRAY ADHESIVE**

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:

**PERMANENT SPRAY ADHESIVE**

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST) Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS EH40/2005 Workplace exposure limits (Third edition, published 2018) DIRETTIVA (UE) 2017/164 DELLA COMMISSIONE del 31 gennaio 2017 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 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 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. ACGIH 2019
FRA	France	
GBR	United Kingdom	
ITA	Italia	
NOR	Norge	
PRT	Portugal	
EU	OEL EU TLV-ACGIH	

**METHYL OXIDE DIMETHYLETER****Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLEP	ITA	983	400			INHAL
Predicted no-effect concentration - PNEC						
Normal value in fresh water				1,55		mg/l
Normal value in marine water				0,16		mg/l
Normal value for fresh water sediment				6,581		mg/kg
Normal value for marine water sediment				0,69		mg/kg
Normal value for water, intermittent release				1,549		mg/l
Normal value for the terrestrial compartment				0,45		mg/kg

**Health - Derived no-effect level - DNEL / DMEL**

Route of exposure	Effects on consumers			Effects on workers			Chronic local	Chronic systemic
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic		
Inhalation				471 mg/m3				1894 mg/m3

**CYCLOHEXANE****Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	700	200			
VLEP	FRA	700	200	1300	375	11
WEL	GBR	350	100	1050	300	
VLEP	ITA	350	100			
TLV	NOR	525	150			
VLE	PRT	700	200			
OEL	EU	700	200			
TLV-ACGIH		344	100			
Predicted no-effect concentration - PNEC						
Normal value in fresh water				0,207		mg/l
Normal value in marine water				0,207		mg/l
Normal value for fresh water sediment				16,68		mg/kg
Normal value for marine water sediment				16,68		mg/kg
Normal value of STP microorganisms				3,24		mg/l

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Normal value for the terrestrial compartment 3,38 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				59,4 mg/kg bw/d				
Inhalation	412 mg/m3	412 mg/m3	206 mg/m3	206 mg/m3	1400 mg/m3	1400 mg/m3	700 mg/m3	700 mg/m3
Skin				1186 mg/kg bw/d				2016 mg/kg bw/d

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
TLV-ACGIH		1441	400	

**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				1301 mg/kg bw/d				
Inhalation				1131 mg/m3				5306 mg/m3
Skin				1377 mg/kg bw/d				13964 mg/kg bw/d

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
OEL	EU	1400		

**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				149 mg/kg bw/d				
Inhalation				447 mg/m3				2085 mg/m3
Skin				149 mg/kg bw/d				300 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.

**PERMANENT SPRAY ADHESIVE****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, C6, ISOALKANS, <5% N-HEXANE**

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

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Chemical resistant gloves are recommended. If contact with forearms is likely, wear glove-style gloves. Nitrile, CEN EN 420 and EN 374 standards provide general requirements and lists of glove types.

**SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	aerosol
Colour	yellow
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
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

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Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,24
Solubility	partially soluble 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.

**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.

**METHYL OXIDE DIMETHYLETER**

Vapors can form an explosive mixture with air.

**CYCLOHEXANE**

May react violently with: strong oxidants, liquid nitric oxide. Forms explosive mixtures with: air.

**10.4. Conditions to avoid**

Avoid overheating.

**METHYL OXIDE DIMETHYLETER**

Temperature: > 52 ° C

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

Open flames and high energy ignition sources.



**PERMANENT SPRAY ADHESIVE**

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

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

**10.5. Incompatible materials**

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

METHYL OXIDE DIMETHYLETER

Oxygen, oxidizing agents, acid anhydrides, strong acids, carbon monoxide, acetic anhydride, powdered metals.

CYCLOHEXANE

Incompatible materials: natural rubbers, neoprene, polyvinyl chloride, polyethylene.

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Strong oxidants.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Strong oxidants.

**10.6. Hazardous decomposition products**

METHYL OXIDE DIMETHYLETER

Formaldehyde, carbon dioxide (CO<sub>2</sub>), carbon monoxide, methanol.

**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

CYCLOHEXANE

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

**PERMANENT SPRAY ADHESIVE****CYCLOHEXANE**

Irritating for the skin and mucous membranes, and may be absorbed by the skin; nerve damage can occur at high doses and is largely due to the cyclohexanone, its metabolite.

Interactive effects**CYCLOHEXANE**

The substance may enhance the effects of agents such as tri-ortho-cresyl phosphate (TOCP).

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:

Not classified (no significant component)

LD50 (Dermal) of the mixture:

Not classified (no significant component)

**CYCLOHEXANE**

LD50 (Oral) > 5000 mg/kg Rat

LD50 (Dermal) > 2000 mg/kg Rabbit

LC50 (Inhalation) 13,9 mg/l/4h Rat

**METHYL OXIDE DIMETHYLETER**

LC50 (Inhalation) 164000 ppm/4h rat

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

LD50 (Oral) > 25 mg/kg Rat

LD50 (Dermal) > 5 mg/kg Rabbit

LC50 (Inhalation) 73860 ppm/4h Rat

**METHYL OXIDE DIMETHYLETER**

Method: Not indicated

Reliability: 2

Species: Rat (albino ChR-CD; male)

Route of exposure: Inhalation (gas)

Results: LC50: 164 000 ppm

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

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Method: Equivalent or similar to OECD 401

Reliability: 1

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

Route of exposure: Oral

Results: LD50:> 5 000 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 / m<sup>3</sup> air

Method: Equivalent or similar to OECD 402

Reliability: 1

Species: Rat (Crj; CD (SD); male / female)

Route of exposure: Dermal

Results: LD50:> 2 000 mg / kg bw

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: standard acute oral test

Reliability: 2

Species: Rat (Charles River CD; male / female)

Route of exposure: Oral

Results: LD50> 8 mL / kg bw

Method: Equivalent or similar to OECD 403

Reliability: 2

Species: Rat (Wistar; male / female)

Route of exposure: Inhalation (vapors)

Results: LC50> 23.3 mg / L air

Method: The acute toxicity of SBP 100/140 was determined according to Noakes and Sanderson (1969): A method for determining the dermal toxicity of pesticides, Br. J. Industr Med 26: 59-64.

Reliability: 2

Species: Rat (Charles River CD; male / female)

Route of exposure: Dermal

Results: LD50> = 4 mL / kg bw

**SKIN CORROSION / IRRITATION**

Causes skin irritation

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

Method: OECD 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Irritating

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: Equivalent or similar to OECD 404

Reliability: 2

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Category 2, Irritating

**SERIOUS EYE DAMAGE / IRRITATION**

Does not meet the classification criteria for this hazard class

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

**PERMANENT SPRAY ADHESIVE**

Method: OECD 405  
Reliability: 1  
Species: Rabbit (New Zealand White)  
Route of exposure: Ocular  
Results: Not irritating

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Federal Register of the F.D.A. 28 (110), 6.6.1963, para. 191.12. Test for eye irritants  
Reliability: 2  
Species: Rabbit (New Zealand White)  
Route of exposure: Ocular  
Results: Not irritating

**RESPIRATORY OR SKIN SENSITISATION**

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 406  
Reliability: 2  
Species: guinea pig (Hartley; female)  
Route of exposure: Dermal  
Results: Not sensitizing

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD 406  
Reliability: 2  
Species: guinea pig (p-strain; male / female)  
Route of exposure: Dermal  
Results: Not sensitizing

Respiratory sensitization  
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

Method: OECD 471 in vitro test  
Reliability: 1  
Species: S. typhimurium  
Results: Negative  
Method: Equivalent or similar to OECD 477 in vivo test  
Reliability: 2  
Species: Drosophila melanogaster (male)  
Route of exposure: Inhalation (gas)  
Results: Negative

CYCLOHEXANE

Method: The procedure used was based on that reported by Clive and Spector (1975). L5178Y cells were exposed to the chemical test for 4 h in the presence and absence of rat S9 fraction and expression of the induced TK - / - phenotype determined-test in vitro  
Reliability: 1

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Species: Lymphoma mouse  
Results: Negative with and without metabolic activation

Method: Equivalent or similar to OECD 475  
Reliability: 1  
Species: Rat (CRL: COBS CD (SD) BR; male / female)  
Route of exposure: Inhalation (vapors)  
Results: Negative

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

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: 1  
Species: Mouse (CD-1; male / female)  
Route of exposure: Oral  
Results: Negative

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

Method: Equivalent or similar to OECD 471  
Reliability: 1  
Species: S. typhimurium, E. Coli  
Results: Negative with or without metabolic activation  
Bibliographic reference: Brooks, T.M. et al., The genetic toxicology of some hydrocarbon and oxygenated solvents (1988)

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

**METHYL OXIDE DIMETHYLETER**

Method: Equivalent or similar to OECD 453  
Reliability: 1  
Species: Rat (CD (R) (SD) BR; male / female)  
Route of exposure: Inhalation (vapors)  
Results: Negative

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

Method: Equivalent or similar to OECD 403  
Reliability: 1  
Species: Rat (F344 / N; male / female)  
Route of exposure: Inhalation (vapors)  
Results: Negative. The NOAEC for rat females was determined to be 2200 mg / m3. The NOAEC for male rats was determined to be 138 mg / m3.

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class

**METHYL OXIDE DIMETHYLETER**

Method: Equivalent or similar to OECD 452  
Reliability: 1

**PERMANENT SPRAY ADHESIVE**

Species: Rat (CD (SD) BR; male / female)  
Route of exposure: Inhalation (vapors)  
Results: Negative

Adverse effects on sexual function and fertility  
CYCLOHEXANE

Method: Equivalent or similar to OECD 416  
Reliability: 1  
Species: Rat (CRL: COBS CD (SD) BR; male / female)  
Route of exposure: Inhalation (vapors)  
Results: NOAEC (fertility) 500 - 2 000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: OECD TG 413  
Reliability: 1  
Species: Rat (Fischer 344; male / female)  
Route of exposure: Inhalation (vapors)  
Results: Negative. NOAEC (fertility)  $\geq$  400 ppm

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Equivalent or similar to OECD 416  
Reliability: 1  
Species: Rat (Sprague-Dawley; male / female)  
Route of exposure: Inhalation (vapors)  
Results: NOAEL 9000 ppm

Adverse effects on development of the offspring  
CYCLOHEXANE

Method: Equivalent or similar to OECD 414  
Reliability: 1  
Species: Rat (CRL: COBS CD (SD) BR)  
Route of exposure: Inhalation (vapors)  
Results: NOAEC (development) 7 000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Guidelines for Reproduction Studies for Safety and Evaluation of Drugs for Human Use, Segment II (Teratology Study)  
Reliability: 1  
Species: Rat (Sprague-Dawley)  
Route of exposure: Inhalation (vapors)  
Results: Negative. NOAEC (development)  $\geq$  300 ppm

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Food and Drug Administration 1966 "Guidelines for Reproduction Studies for Safety Evaluation of Drugs for Human Use", Segment II  
Reliability: 2  
Species: Rat (CD (SD))  
Route of exposure: Inhalation (vapors)  
Results: NOAEC 1 200 ppm

**STOT - SINGLE EXPOSURE**

May cause drowsiness or dizziness

METHYL OXIDE DIMETHYLETER

**PERMANENT SPRAY ADHESIVE**

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

CYCLOHEXANE

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

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

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

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

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

Target organ  
CYCLOHEXANE

Central nervous system

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Central nervous system

Route of exposure  
CYCLOHEXANE

Inhalation

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

METHYL OXIDE DIMETHYLETER

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

CYCLOHEXANE

Method: EPA OPPTS 870.3465  
Reliability: 1  
Species: Mouse (CrI: CD-1 BR; male / female)  
Route of exposure: Inhalation (vapors)  
Results: NOAEC 7000 ppm

HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Method: Equivalent or similar to OECD 422  
Reliability: 1  
Species: Rat (Sprague-Dawley; male / female)  
Route of exposure: Oral

## PERMANENT SPRAY ADHESIVE

Results: Negative. 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: Negative. NOAEC = 10186 mg / m<sup>3</sup>

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Method: Not indicated

Reliability: 2

Species: Rat (Wistar; male)

Route of exposure: Inhalation (vapors)

Results: NOAEC 12 470 mg / m<sup>3</sup> air

Bibliographic reference: Takeuchi, Y. et al., A comparative study of the toxicity of n-pentane, n-hexane, and n-heptane to the peripheral nerve of the rat. (1981)

#### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

## SECTION 12. Ecological information

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

### 12.1. Toxicity

#### CYCLOHEXANE

LC50 - for Fish 4,53 mg/l/96h Pimephales promelas

EC50 - for Crustacea 3,89 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 32,7 mg/l/72h Chlorella vulgaris

#### METHYL OXIDE DIMETHYLETER

LC50 - for Fish 4100 mg/l/96h

EC50 - for Crustacea 4400 mg/l/48h

EC50 - for Algae / Aquatic Plants 154,917 mg/l/72h

Chronic NOEC for Fish 4100 mg/l

Chronic NOEC for Crustacea 4400 mg/l

#### HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

LC50 - for Fish 13,4 mg/l/96h

### 12.2. Persistence and degradability

#### CYCLOHEXANE

Rapidly degradable, 77% in 21 days.

#### HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE

Rapidly degradable in water, 80% in 28 days.

#### HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Quickly degradable in water, 98% in 28 days.

#### CYCLOHEXANE



**PERMANENT SPRAY ADHESIVE**

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

**METHYL OXIDE DIMETHYLETER**

Solubility in water 45600 mg/l

**12.3. Bioaccumulative potential****CYCLOHEXANE**

Partition coefficient: n-octanol/water 3,44

**METHYL OXIDE DIMETHYLETER**

Partition coefficient: n-octanol/water 0,07 Log Kow

**12.4. Mobility in soil****CYCLOHEXANE**

Partition coefficient: soil/water 2,89

**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.

**METHYL OXIDE DIMETHYLETER**

It can be used after reconditioning. In accordance with local and national regulations. It must be incinerated in a suitable incineration plant in possession of an authorization issued by the competent authorities.

**HYDROCARBONS, C6, ISOALKANS, <5% N-HEXANE**

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain debris and may be hazardous. Do not attempt to fill or clean containers without proper instructions. Empty drums must be completely drained and safely stored until they are properly reconditioned or disposed of. Empty containers must be recycled, recovered or disposed of through an appropriately qualified or authorized contractor and in accordance with government regulations. DO NOT PRESSURIZE, CUT, WELD, BRAZE, WELD, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER IGNITION SOURCES. MAY EXPLODE AND CAUSE INJURY OR DEATH.

**HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES**

The product is suitable for combustion in a closed controlled burner for the value or disposal of the fuel by supervised incineration at very high temperatures to prevent the formation of undesirable combustion products.

## PERMANENT SPRAY ADHESIVE

## 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 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

## PERMANENT SPRAY ADHESIVE

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-E2

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

Product

Point 40

Contained substance

Point	57	CYCLOHEXANE Reg. no.: 01- 2119463273-41- XXXX
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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

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

## SECTION 16. Other information

## PERMANENT SPRAY ADHESIVE

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

<b>Flam. Gas 1A</b>	Flammable gas, category 1A
<b>Aerosol 1</b>	Aerosol, category 1
<b>Aerosol 3</b>	Aerosol, category 3
<b>Flam. Liq. 2</b>	Flammable liquid, category 2
<b>Press. Gas</b>	Pressurised gas
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>Aquatic Acute 1</b>	Hazardous to the aquatic environment, acute toxicity, category 1
<b>Aquatic Chronic 1</b>	Hazardous to the aquatic environment, chronic toxicity, category 1
<b>Aquatic Chronic 2</b>	Hazardous to the aquatic environment, chronic toxicity, category 2
<b>H220</b>	Extremely flammable gas.
<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H225</b>	Highly flammable liquid and vapour.
<b>H280</b>	Contains gas under pressure; may burst if heated.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H315</b>	Causes skin irritation.
<b>H336</b>	May cause drowsiness or dizziness.
<b>H400</b>	Very toxic to aquatic life.
<b>H410</b>	Very toxic to aquatic life with long lasting effects.
<b>H411</b>	Toxic to aquatic life with long lasting effects.
<b>EUH066</b>	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

**PERMANENT SPRAY ADHESIVE**

- 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 (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)
  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:

01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.