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 19960-6318**

Product name **ALUMINUM GREASE SPRAY**

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

Intended use **Release lubricant with aluminum**

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 2	H223	Flammable aerosol.
	H229	Pressurised container: may burst if heated.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H223	Flammable aerosol.
H229	Pressurised container: may burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin 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.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P331	Do NOT induce vomiting.
P301+P310	IF SWALLOWED: immediately call a POISON CENTER / doctor.
Contains:	HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

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)**
PROPANE		
CAS 74-98-6 EC 200-827-9 INDEX 601-003-00-5 Reg. no. 01-2119486944-21-XXXX	24 ≤ x < 25	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES CAS 64742-49-0	24 ≤ x < 25	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

HYDROCARBONS C4

CAS 87741-01-3 | 18 ≤ x < 19,5 | Flam. Gas 1A H220, Press. Gas H280, Classification note according to Annex VI to the CLP Regulation: H K U

EC 289-339-5

INDEX 649-113-00-2

Reg. no. 01-2119475607-28-XXXX

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

CAS 64742-48-9 | 10,5 ≤ x < 12 | Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066

EC 919-857-5

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Reg. no. 01-2119463258-33-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: 24,00 %

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 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:

ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
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
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

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Threshold Limit Value

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

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				149 mg/kg bw/d				
Inhalation				447 mg/m3				2085 mg/m3
Skin				149 mg/kg bw/d				300 mg/kg bw/d

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP		1000			
TLV	NOR	900	500			
TLV-ACGIH			1000			

HYDROCARBONS C4

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			1000			

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				0,0664 mg/m3				2,21 mg/m3
Skin								23,4 mg/kg bw/d

Legend:

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

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

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION
None required.

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

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

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

ENVIRONMENTAL EXPOSURE CONTROLS

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

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

HYDROCARBONS, 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.

HYDROCARBONS C4

Wear insulating gloves if contact with liquid is possible. The gloves selected must meet the European standard EN 511 for protection from the cold.

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

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol

Colour	alluminio
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
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	>2
Relative density	0,732+/--0,05
Solubility	solubile in olio
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 175 °C
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.

HYDROCARBONS C4

Vapors can form an explosive mixture with air

10.4. Conditions to avoid

Avoid overheating.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

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

HYDROCARBONS C4

Heat, sparks, open flames, other sources of ignition and oxidizing conditions

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

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.

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Strong oxidants.

HYDROCARBONS C4

Strong oxidizing agents, halogenated hydrocarbons, nitrogen dioxide, fluorine compounds, halogens (bromine, chlorine, fluorine), metal catalysts

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

Strong oxidants

10.6. Hazardous decomposition products

HYDROCARBONS C4

Thermal decomposition can produce carbon oxides and other toxic gases and release heat and pressure

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

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)

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

PROPANE

Method: To study the concentrations at which the effects of the CNS occur following exposure by inhalation to propane by measuring LC50 (15 min) and EC50 (CNS) (10 min) in rats.
Reliability: 2
Species: Rat (Alderley Park (SPF); male / female)
Route of exposure: Inhalation
Results: LC50> 800 000 ppm

HYDROCARBONS C4

Method: Not indicated-Read across
Reliability: 2
Species: Rat (Alderley Park; male / female)
Route of exposure: Inhalation
Results: LC50 = 1443 mg / L air

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

Method: OECD 423
Reliability: 2
Species: Rat (Wistar; male / female)
Route of exposure: Oral
Results: LD50> 15 000 mg / kg bw
Method: Equivalent or similar to OECD 403
Reliability: 1
Species: Rat (Crj: CD (SD); male / female)
Route of exposure: Inhalation (vapors)
Results: LC50> 4 951 mg / m³ air
Method: Equivalent or similar to OECD 402
Reliability: 2
Species: Rabbit (New Zealand White; male / female)
Route of exposure: Dermal
Results: LD50> 5 000 mg / kg bw

SKIN CORROSION / IRRITATION

Causes skin irritation

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

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

Method: Equivalent or similar to OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Irritating

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

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

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

Method: OECD 405

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

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

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

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

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

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

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)

PROPANE

Method: OECD 471 in vitro test
Reliability: 1
Species: Histidine Salmonella
Results: Negative with or without metabolic activation
Method: OECD 474-test in vivo
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)
Route of exposure: Inhalation (gas)
Results: Negative

HYDROCARBONS C4

Method: OECD 471-in vitro test-Read across
Reliability: 1
Species: S. typhimurium

Results: Negative with and without metabolic activation
Method: Not indicated - in vivo test - Read across
Reliability: 2
Species: Rat (Fischer 344; male)
Route of exposure: Inhalation (gas)
Results: Negative

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

Method: OECD 471 in vitro test
Reliability: 1
Species: S. typhimurium
Results: Negative with or without metabolic activation
Method: Equivalent or similar to OECD 474 in vivo test
Reliability: 1
Species: Mouse (CD-1; male / female)
Route of exposure: Oral
Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS C4

Method: Equivalent or similar to EPA OPP 83-5-Read across
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Oral
Results: Negative

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

Method: Equivalent or similar to OECD 453
Reliability: 1
Species: Rat (F344 / N; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 138 mg / m³ air

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility
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

PROPANE

Method: OECD 413
Reliability: 1
Species: Rat (Sprague-Dawley CD; male / female)
Route of exposure: Inhalation
Results: NOAEC (fertility) 10 000 ppm

HYDROCARBONS C4

Method: OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: Negative, NOAEC (fertility) = 16000 ppm

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

Method: OECD TG 413
Reliability: 1
Species: Rat (Fischer 344; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC> = 400 ppm

Adverse effects on development of the offspring
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

PROPANE

Method: EPA OPPTS 870.3700
Reliability: 1
Species: Rat (VAF / Plus®, Sprague-Dawley Derived (CD®) Crl: CD® IGS BR)
Route of exposure: Inhalation (gas)
Results: NOAEC (development) 10 426 ppm

HYDROCARBONS C4

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

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

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.

PROPANE

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

HYDROCARBONS C4

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

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

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

Target organ
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Central nervous system

Route of exposure
HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES

Inhalation

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

Dermal and inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

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 / m³ 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)

PROPANE

Method: OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Inhalation (gas)
Results: NOAEC 16 000 ppm

HYDROCARBONS C4

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

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

Method: Equivalent or similar to OECD 422
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL> = 1000 mg / kg / day
Method: Equivalent or similar to OECD 413
Reliability: 1
Species: Rat (Albino; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC 10186 mg / m3

ASPIRATION HAZARD

Toxic for aspiration

SECTION 12. Ecological information

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

12.1. Toxicity

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES	
LC50 - for Fish	13,4 mg/l/96h

12.2. Persistence and degradability

HYDROCARBONS, C7, N-ALCANS, ISOALKANS, CYCLES
Quickly degradable in water, 98% in 28 days.

PROPANE	
Solubility in water	0,1 - 100 mg/l
Rapidly degradable	

12.3. Bioaccumulative potential

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

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

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.

HYDROCARBONS C4
- Comply with applicable local, state or international regulations regarding the disposal of solid or hazardous waste and / or disposal of containers.
- Contaminated product, soil, water, container residues and spill cleaning materials can be hazardous waste.
- The contaminated product, soil or water must be considered dangerous due to the potential evolution of flammable vapor.
- Follow appropriate grounding procedures to avoid static electricity.
- The product must not be allowed to enter drains, water courses or the soil.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA:	1950

14.2. UN proper shipping name

ADR / RID:	AEROSOLS
IMDG:	AEROSOLS
IATA:	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.1
IMDG:	Class: 2	Label: 2.1
IATA:	Class: 2	Label: 2.1

14.4. Packing group

ADR / RID, IMDG, IATA:	-

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: -- Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum	Packaging

Pass.:	quantity: 150 Kg Maximum quantity: 75 Kg	instructions: 203 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

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

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

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 2	Aerosol, category 2
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Asp. Tox. 1	Aspiration hazard, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H223	Flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

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
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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.