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 19340-5965**

Product name **GREASE SPRAY FOR FOOD INDUSTRY**

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

Intended use **Spray lubricant for food industry machines**

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	Extremely flammable aerosol.
	H229	Pressurised container: may burst if heated.
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:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P251	Do not pierce or burn, even after use.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
P211	Do not spray on an open flame or other ignition source.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe dust / fume / gas / mist / vapours / spray.
P501	Dispose of contents / container in accordance with local regulations.

2.3. Other hazards

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

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC CAS 246538-78-3 EC 920-901-0 INDEX - Reg. no. 01-2119456810-40-XXXX	18 ≤ x < 19,5	Asp. Tox. 1 H304, EUH066
PROPANE CAS 74-98-6 EC 200-827-9 INDEX 601-003-00-5 Reg. no. 01-2119486944-21-XXXX	18 ≤ x < 19,5	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
REPENT CAS 109-66-0	18 ≤ x < 19,5	Flam. Liq. 1 H224, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066

EC 203-692-4

INDEX -

Reg. no. 01-2119459286-30-XXXX

BUTANE

CAS 106-97-8 | 8 ≤ x < 9 | Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C U

EC 203-448-7

INDEX 601-004-00-0

Reg. no. 01-2119474691-32-XXXX

ISOBUTANE

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

EC 200-857-2

INDEX 601-004-00-0

Reg. no. 01-2119485395-27-XXXX

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: 34,00 %

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)
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)
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	TLV-ACGIH	ACGIH 2019
	RCP TLV	ACGIH TLVs and BEIs – Appendix H

REPENT

Predicted no-effect concentration - PNEC		
Normal value in fresh water	23	mg/l
Normal value in marine water	23	mg/l
Normal value for fresh water sediment	1,2	mg/kg
Normal value for marine water sediment	1,2	mg/kg
Normal value of STP microorganisms	360	mg/l
Normal value for the terrestrial compartment	0,55	mg/kg

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				214 mg/kg bw/d				
Inhalation				643 mg/m3				3000 mg/m3
Skin				214 mg/kg bw/d				432 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, C11-C13, ISOALKANS, <2% AROMATIC

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	1200	171			

ISOBUTANE

Threshold Limit Value

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

BUTANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP		1000			Gases
VLEP	FRA	1900	800			
WEL	GBR	1450	600	1810	750	
TLV	NOR	600	250			
TLV-ACGIH					1000	

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.

HAND PROTECTION
None required.

SKIN PROTECTION
Wear category I 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.

REPENT

Respiratory protection: If technical controls do not keep concentrations of contaminants in the air at an adequate level to protect workers' health, an approved respirator may be appropriate. The selection, use and maintenance of the respirator must comply with regulatory requirements, if applicable. The types of respirators to consider for this material include:
Respirator with half-face filter AX type filter material, the EN 136, 140 and 405 standards of the European Committee for Standardization (CEN) provide respiratory masks and EN 149 and 143 provide recommendations on filters.
Hand protection: any specific glove information provided is based on published literature and glove manufacturer data. The suitability of the gloves and breakthrough time will differ according to the specific conditions of use. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for conditions of use. Inspect and replace worn or damaged gloves. The types of gloves to consider for this material include:

Chemical resistant gloves are recommended. Nitrile, CEN EN 420 and EN 374 standards provide general requirements and lists of glove types.
Eye protection: if contact is possible, we recommend wearing safety glasses with side shields.
Skin and body protection: any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to consider for this material include:
Chemical / oil resistant clothing is recommended.

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

Respiratory protection: If technical controls do not keep concentrations of contaminants in the air at an adequate level to protect workers' health, an approved respirator may be appropriate. The selection, use and maintenance of the respirator must comply with regulatory requirements, if applicable. The types of respirators to consider for this material include:
Respirator with half-face filter The standards EN 136, 140 and 405 of the European Committee for Standardization (CEN) provide respirator masks and EN 149 and 143 provide recommendations on the filter., Type A filter material. For high concentrations in the air , use an approved compressed air respirator operated in positive pressure mode. Air-supplied respirators with an escape cylinder may be appropriate when oxygen levels are inadequate, gas / vapor warning properties are poor or if the capacity / value of the air purification filter can be exceeded .
Hand protection: any specific glove information provided is based on published literature and glove manufacturer data. The suitability of the gloves and breakthrough time will differ according to the specific conditions of use. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for conditions of use. Inspect and replace worn or damaged gloves. The types of gloves to consider for this material include:
If prolonged or repeated contact is likely, the use of chemical resistant gloves is 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.
Eye protection: if contact is possible, we recommend wearing safety glasses with side shields.
Skin and body protection: any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to consider for this material include:
If prolonged or repeated contact is likely, chemical and oil resistant clothing is recommended.

ISOBUTANE

Suitable glove material protective gloves, e.g. nitrile butadiene rubber gloves (NBR), leather gloves, heat insulating
Selection of protective gloves to meet specific workplace requirements.
Suitability for specific workplaces must be clarified with the manufacturers of protective gloves.
The information is based on our tests, references from literature and information from glove manufacturers or derived by analogy with similar materials.
Remember that the useful time per day of a chemical protection glove can be much shorter than the breakthrough time determined according to EN 374 due to the numerous influencing factors involved.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	aerosol
Colour	whitish
Odour	characteristic of solvent
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	0,6 % (V/V)
Upper inflammability limit	10,9 % (V/V)
Lower explosive limit	Not available
Upper explosive limit	Not available

Vapour pressure	3500 hPa
Vapour density	Not available
Relative density	Not available
Solubility	partially soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	> 200 °C
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	not explosive
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.

REPENT

The material is stable under normal conditions.

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

The material is stable under normal conditions.

10.3. Possibility of hazardous reactions

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

ISOBUTANE

Vapors can form an explosive mixture with air.

BUTANE

Vapors can form an explosive mixture with air.

10.4. Conditions to avoid

Avoid overheating.

REPENT

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

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

Open flames and high energy ignition sources.

ISOBUTANE

Keep away from heat and other causes of fire.

BUTANE

Avoid heat and sources of ignition.

10.5. Incompatible materials

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

REPENT

Strong oxidants.

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

Strong oxidants.

ISOBUTANE

Strong oxidizing agents, chlorine, oxygen.

BUTANE

Strong oxidizing agents, chlorine, oxygen.

10.6. Hazardous decomposition products

REPENT

The material does not decompose at room temperature.

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

The material does not decompose at room temperature.

ISOBUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO2).

BUTANE

In case of fire or production of thermal decomposition, for example, carbon monoxide, carbon dioxide (CO2).

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

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)

REPENT

Method: OECD 401
Reliability: 1
Species: Rat (Crl: CDBR; male / female)
Route of exposure: Oral

Results: LD50> 2000 mg / kg bw
Method: Not indicated
Reliability: 2
Species: Rat (Wistar; male), mouse (Albino; female)
Route of exposure: Inhalation (vapors)
Results: 21000 ppm (male), 23500 ppm (female)

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, C11-C13, ISOALKANS, <2% AROMATIC

Method: OECD 401
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: LD50> 5000 mg / kg bw / day
Method: Equivalent or similar to OECD 403
Reliability: 1
Species: Rat (Crj: CD (SD); male / female)
Route of exposure: Inhalation (vapors)
Results: LC50> 4951 mg / m3 air
Method: Equivalent or similar to OECD 402
Reliability: 1
Species: Rat (Crj: CD (SD); male / female)
Route of exposure: Dermal
Results: LD50> 2000 mg / kg bw / day

BUTANE

Method: Not indicated
Reliability: 2
Species: Rat (Alderley Park (SPF); male / female)
Route of exposure: Inhalation
Results: LC50: 1 443 mg / L air

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

REPENT

Method: Equivalent or similar to OECD 404
Reliability: 1
Species: Rabbit (New Zealand White)
Route of exposure: Dermal
Results: Not classified

HYDROCARBONS, C11-C13, ISOALKANS, <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

REPENT

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

HYDROCARBONS, C11-C13, ISOALKANS, <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

Skin sensitization
REPENT

Method: Equivalent or similar to OECD 406
Reliability: 1
Species: guinea pig (Hartley; female)
Route of exposure: Dermal
Results: Not sensitizing

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

Method: Equivalent or similar to 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

REPENT

Method: EU Method B.10-In vitro test
Reliability: 1
Species: Chinese hamster
Results: Negative with and without metabolic activation
Method: EU Method B.12-In vivo test
Reliability: 1
Species: Rat (Crl: CDBR; male / female)
Route of exposure: Inhalation (vapors)
Results: Negative

PROPANE

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

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

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

BUTANE

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

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C11-C13, ISOALKANS, <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

BUTANE

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

Adverse effects on sexual function and fertility

REPENT

Method: OECD 415-Read across
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL (fertility) = 300 mg / kg bw / day

PROPANE

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

HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC

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

Adverse effects on development of the offspring
REPENT

Method: OECD 414
Reliability: 1
Species: Rat (Crl: CD BR VAF / Plus)
Route of exposure: Oral
Results: NOAEL (development) = 1000 mg / kg bw / day

PROPANE

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

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

REPENT

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, C11-C13, ISOALKANS, <2% AROMATIC

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

ISOBUTANE

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

BUTANE

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

Target organ
REPENT

Narcosis

Route of exposure
REPENT

Inhalation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

REPENT

Method: OECD 413
Reliability: 1
Species: Rat (Crl: CDBR; male / female)
Route of exposure: Inhalation (gas)
Results: NOAEC = 20000 mg / m3 air

PROPANE

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

HYDROCARBONS, C11-C13, ISOALKANS, <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 bw / day
Method: Equivalent or similar to OECD 413
Reliability: 1
Species: Rat (albino; male / female)
Route of exposure: Inhalation (vapors)
Results: NOAEC> 10400 mg / m3 air

ISOBUTANE

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

BUTANE

Method: OECD 413

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

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

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

REPENT	
EC50 - for Crustacea	2,7 mg/l/48h

12.2. Persistence and degradability

REPENT
Easily degradable in water, 87% in 28 days.
HYDROCARBONS, C11-C13, ISOALKANS, <2% AROMATIC
Easily degradable in water, 68% in 28 days.
BUTANE
Quickly degradable in water.

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

12.3. Bioaccumulative potential

BUTANE	
Partition coefficient: n-octanol/water	1,09
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.

REPENT
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, C11-C13, ISOALKANS, <2% AROMATIC
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.

ISOBUTANE
Compliance with local regulations, e.g. incineration through flaring system.
No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.
The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

BUTANE
No waste key number according to the European list of waste types can be assigned to this product, since this classification is based on the use (not yet determined) for which the product is intended for the consumer.
The key number for the waste must be determined according to the European waste type list (decision on the EU waste type list 2000/532 / EC) in collaboration with the disposal company / producer / authority Official.

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: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special Provision: -		
IMDG:	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

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

Information not available

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. 1	Flammable liquid, category 1
Press. Gas	Pressurised gas
Press. Gas (Liq.)	Liquefied gas
Asp. Tox. 1	Aspiration hazard, 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
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H224	Extremely flammable liquid and vapour.
H280	Contains gas under pressure; may burst if heated.
H304	May be fatal if swallowed and enters airways.
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
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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
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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
- 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.