

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 19520-6120
Product name: BLUE POLY BATTERY PROTECTIVE

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

Intended use: Protective spray for electrical contacts

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.

BLUE POLY BATTERY PROTECTIVE

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.
P331	Do NOT induce vomiting.
P301+P310	IF SWALLOWED: immediately call a POISON CENTER / doctor.

Contains:

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE
 HYDROCARBONS, C9-C11, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC
 HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE		
CAS -	35 ≤ x < 37,5	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
EC 921-024-6		
INDEX -		
Reg. no. 01-2119475514-35-XXXX		
PROPANE		
CAS 74-98-6	16,5 ≤ x < 18	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9		

BLUE POLY BATTERY PROTECTIVE

INDEX 601-003-00-5

Reg. no. 01-2119486944-21-XXXX

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

CAS 64742-48-9 16,5 ≤ x < 18 Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, EUH066

EC 919-857-5

INDEX -

Reg. no. 01-2119463258-33-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

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

CAS - 8 ≤ x < 9 Flam. Liq. 3 H226, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 3 H412, EUH066

EC 927-241-2

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Reg. no. 01-2119471843-32-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: 33,00 %

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

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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.

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

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

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				699 mg/kg bw/d				
Inhalation				608 mg/m3				2035 mg/m3
Skin				699 mg/kg bw/d				773 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, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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				46 mg/kg bw/d				
Inhalation				185 mg/m3				871 mg/m3
Skin				46 mg/kg bw/d				77 mg/kg bw/d

ISOBUTANE

Threshold Limit Value

BLUE POLY BATTERY PROTECTIVE

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

RCP TLV			1000	RESP
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BUTANE**Threshold Limit Value**

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

VLA	ESP		1000	Gases
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VLEP	FRA	1900	800	
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WEL	GBR	1450	600	1810 750
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TLV	NOR	600	250	
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TLV-ACGIH				1000
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Legend:

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

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

8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

None required.

SKIN PROTECTION

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

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

ENVIRONMENTAL EXPOSURE CONTROLS

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

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

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HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

The types of gloves to consider for this material include: chemical resistant gloves. In case of contact with the forearms, wear suitable protective gloves. Nitrile, standards CEN EN 420 and EN 374 provide general requirements and lists of types of gloves.

The types of respirators to be considered for this material include: half-face filter respirator with type A filter material, standards EN 136, 140 and 405 of the European Committee for Standardization (CEN) provide respiratory masks and EN 149 and 143 provide recommendations on the filters.

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.

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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 your 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.

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	blue
Odour	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

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Vapour density	Not available
Relative density	0,7 g/cm ³
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

Total solids (250°C / 482°F)	19,10 %
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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.

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.

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

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

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

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

BLUE POLY BATTERY PROTECTIVE

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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

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.

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Oxidizing agents.

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

Strong oxidants

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

strong oxidants

ISOBUTANE

Strong oxidizing agents, chlorine, oxygen.

BUTANE

Strong oxidizing agents, chlorine, oxygen.

10.6. Hazardous decomposition products

ISOBUTANE

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

BLUE POLY BATTERY PROTECTIVE

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)

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

LD50 (Oral) > 5840 mg/kg rat

LD50 (Dermal) > 2920 mg/kg rabbit

LC50 (Inhalation) > 25,2 mg/l/4h rat

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Method: The tests were not performed according to the OECD and GHS guidelines.

Reliability: 2

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

Route of exposure: Oral

Results: LD50 > 8

Method: The tests were not performed according to the OECD and GHS guidelines.

Reliability: 2

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Species: Rat (Wistar; male / female)
Route of exposure: Inhalation (vapors)
Results: LC50> 25.2

Method: The tests were not performed according to the OECD and GHS guidelines.

Reliability: 2

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

Route of exposure: Dermal

Results: LD50> = 4

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

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, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: Equivalent or similar to OECD Guideline 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 Guideline 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 Guideline 402

Reliability: 2

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

Route of exposure: Dermal

Results: LD50> 5 000 mg / kg bw

BUTANE

Method: Not indicated

Reliability: 2

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

Route of exposure: Inhalation

Results: LC50: 1 443 mg / L air

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

BLUE POLY BATTERY PROTECTIVE

Method: Section 772 .112-21 CFR 40

Reliability: 2

Species: Rat (Sherman-Wistar; male)

Route of exposure: Oral

Results: LD50> 16 000 mg / kg bw

Method: EPA OPP 81-3

Reliability: 1

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

Route of exposure: Inhalation (aerosol)

Results: LC50> 1.9 mg / L air

Method: Equivalent or similar to OECD Guideline 402

Reliability: 1

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, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Method: OECD 404

Reliability: 2

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

Route of exposure: dermal

Results: Irritant, category 2 according to OECD and GHS guidelines.

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

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: Equivalent or similar to OECD Guideline 404

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Irritating

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

Method: EPA OPPTS 870.2500

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Dermal

Results: Not irritating

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Method: The tests were not performed following the OECD and GHS guidelines.

BLUE POLY BATTERY PROTECTIVE

Reliability: 2

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

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

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD Guideline 405

Reliability: 1

Species: Rabbit (New Zealand White)

Route of exposure: Ocular

Results: Not irritating

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

Method: EPA OPPTS 870.2400

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, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: Equivalent or similar to OECD Guideline 406

Reliability: 2

Species: guinea pig (Hartley; female)

Route of exposure: Dermal

Results: Sensitizing

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

Method: Buehler, E. V., Arch Dermatol, 91: 171, 1965

Reliability: 1

Species: guinea pig (Hartley; male / female)

Route of exposure: Dermal

Results: Sensitizing

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

BLUE POLY BATTERY PROTECTIVE

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

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

Reliability: 1

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

Results: Negative and without metabolic activation.

Bibliographic reference: Brooks, T.M. et al. The genetic toxicology of some hydrocarbon and oxygenated solvents (1988).

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

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, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: OECD Guideline 471-in vitro test

Reliability: 1

Species: *S. typhimurium*

Results: Negative

Method: Equivalent or similar to OECD Guideline 478-test in vivo

Reliability: 1

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

Route of exposure: Inhalation (vapors)

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

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

BLUE POLY BATTERY PROTECTIVE

Method: OECD Guideline 471-in vitro test

Reliability: 1

Species: *S. typhimurium*

Results: Negative

Method: The study was conducted in compliance with the Good Laboratory Practices (GLP) regulations of the U.S. Environmental Protection Agency (EPA), (40 CFR, Part 792) and according to the protocol and standard operating procedures.-test in vivo

Reliability: 2

Species: Mouse (B6C3F1; male / female)

Route of exposure: Oral

Results: Negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

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

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Method: Equivalent or similar to OECD 416

Reliability: 1

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

Route of exposure: Inhalation (vapors)

Results: NOAEL (reproduction) = 9000 ppm

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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

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

PROPANE

Method: OECD 413

Reliability: 1

BLUE POLY BATTERY PROTECTIVE

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

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <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 > = 400 ppm

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

Method: OECD Guideline 415
Reliability: 1
Species: Rat (Sprague-Dawley; male / female)
Route of exposure: Oral
Results: NOAEL > 500 mg / kg bw / day

Adverse effects on development of the offspring
PROPANE

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

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Method: Equivalent or similar to OECD Guideline 414
Reliability: 2
Species: Rat (Crj: CD (SD))
Route of exposure: Oral
Results: NOAEL 500 mg / kg bw / day

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Sulla base dei dati disponibili e a mezzo del giudizio di esperti, la sostanza è classificata nella classe di tossicità per organi bersaglio per esposizione singola.

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.

PROPANE

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

HYDROCARBONS, C9-C10, 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.

BLUE POLY BATTERY PROTECTIVE**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.

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

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

Target organ

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Central nervous system

Route of exposure

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, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Method: Not indicated

Reliability: 1

Species: Rat (WAG / RijCrIBR; male)

Route of exposure: Inhalation (vapors)

Results: Positive, NOAEC = 14000 mg / m³ air

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

PROPANE

Method: OECD 422

Reliability: 1

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

Route of exposure: Inhalation (gas)

Results: NOAEC 16 000 ppm

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

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

BLUE POLY BATTERY PROTECTIVE

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

SULPHONIC ACIDS, PETROLEUM, CALCIUM SALTS

Method: OECD Guideline 407

Reliability: 1

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

Route of exposure: Oral

Results: NOAEL 1 000 mg / kg bw / day

Method: OECD Guideline 412

Reliability: 1

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

Route of exposure: Inhalation (aerosol)

Results: NOAEL 50 mg / m³ air

Target organ

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Central nervous system

Route of exposure

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Inhalation

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Dryness

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

HYDROCARBONS, C6-C7, N-ALCANS,
ISOALKANS, CYCLES, <5% N-HEXANE

LC50 - for Fish

11,4 mg/l/96h fish

EC50 - for Crustacea

3 mg/l/48h daphnia magna

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EC50 - for Algae / Aquatic Plants > 30 mg/l/72h algae

**SULPHONIC ACIDS, PETROLEUM,
CALCIUM SALTS**

EC50 - for Crustacea 1000 mg/l/48h

EC50 - for Algae / Aquatic Plants 1000 mg/l/72h

EC10 for Algae / Aquatic Plants 1000 mg/l/72h

Chronic NOEC for Algae / Aquatic Plants 1000 mg/l

12.2. Persistence and degradability

HYDROCARBONS, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

Easily degradable in water, 98% in 28 days (OECD 301)

HYDROCARBONS, C9-C10, N-ALCANS, ISOALKANS, CYCLES, <2% AROMATIC

Quickly biodegradable, 80% 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

BLUE POLY BATTERY PROTECTIVE

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, C6-C7, N-ALCANS, ISOALKANS, CYCLES, <5% N-HEXANE

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.

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, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY OR OTHER IGNITION SOURCES. MAY EXPLODE AND CAUSE INJURY OR DEATH.**

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: -

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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-E2

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:

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None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

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

SECTION 16. Other information

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

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas	Pressurised gas
Press. Gas (Liq.)	Liquefied 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.
H222	Extremely 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

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- 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
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- 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:

BLUE POLY BATTERY PROTECTIVE

02 / 03 / 08 / 09.