

CLEANER FOR ELECTRIC CONTACTS 400 ml

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: VCLEANRE400
 Product name: DRY CLEANER FOR ELECTRIC CONTACTS 400 ml
 UFI: AR40-S0KN-T00J-1TR2

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

Intended use: Aerosol product for cleaning and maintenance of electric, electromagnetic and electronic contacts.

Identified Uses	Industrial	Professional	Consumer
Consumer	-	-	✓
Industrial Use	✓	-	-
Professional Use	-	✓	-

1.3. Details of the supplier of the safety data sheet

Name: Carima Srl
 Full address: Via dei Brughii 30/31
 District and Country: 20060 Gessate (MI)
 Italia
 Tel. +39 02 95384225
 Fax +39 02 70058164

e-mail address of the competent person

responsible for the Safety Data Sheet: carima@carima.biz

1.4. Emergency telephone number

For urgent inquiries refer to

IT - Centro Antiveneni di Milano - Ospedale Niguarda: Tel. 02 66101029 (Italy)
 AT - Vergiftungsinformationszentrale (VIZ): Tel. +43 01 406 4343 (Austria)
 BE - Belgisch Antigifcentrum: Tel. 070 245245 (Belgium)
 BG - НАЦИОНАЛЕН ЦЕНТЪР ПО ТОКСИКОЛОГИЯ: Tel. +359 2 9154 233 (Bulgaria)
 HR - Centar za kontrolu otrovanja: Tel. +385 1 2348342 (Croatia)
 CY - Τμήμα Επιθεώρησης Εργασίας (TEE): Tel. 1401 (Cyprus)
 CZ - Toxikologické informační středisko (TIS): Tel. +420 224 919 293 / +420 224 915 402 (Czech Republic)
 DK - Giftlinjen: Ring 82 12 12 12 (Denmark)
 EE - Mürgistusteabekeskus: Tel. 16662 (Estonia)
 FI - Myrkytystietokeskus: Tel. 0800 147 111 / 09 471 977 (Finland)
 FR - ORFILA (INRS): Tél. +33 (0) 1 45 42 59 59 (France)
 DE - Giftnotruf der Charité Universitätsmedizin Berlin: Tel. +49 030 19240 (Germany)
 GR - Κέντρο Δηλητηριάσεων: Τηλ. 210 7793777 (Greece)
 HU - Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ): Tel. +36 80 20 1199 (Hungary)
 IS - Eitrunarmiðstöð: Tel. 543 2222 (Iceland)
 IE - National Poisons Information Centre (NPIC): Tel. 01 8092566 / 01 8379964 (Republic of Ireland)
 LV - Latvian Poisons Information Centre: Tel. +371 67042473 (Latvia)
 LT - Apsinuodijimų Informacijos biuras: Tel. 8-5 236 2052 (Lithuania)
 LU - Giftinformationszentrum: Tel. +352 8002 5500 (Luxembourg)
 NL - Nationaal Vergiftigingen Informatie Centrum (NVIC): Tel. 030 274 88 88 (Netherlands)
 NO - Giftinformasjonen: Tel. 22 9 13 00 (Norway)
 PL - Pomorskie Centrum Toksykologii: Tel. +58 682 04 04 (Poland)
 PT - Centro de Informação Antivenenos (CIAV): Tel. 800 250 250 (Portugal)
 RO - Biroul RSI Si Informare Toxicologica: Tel. 021 318 36 06 (Romania)
 SK - Národné Toxikologické informačné centrum (NTIC): Tel. 02 5477 4166 (Slovakia)
 SI - Center za klinično toksikologijo in farmakologijo: Tel. 112 (Slovenia)
 ES - Servicio de Información Toxicológica (SIT) España: Tel. +34 91 562 04 20 (Spain)
 SE - Giftinformationscentralen: Tel. 112 (Sweden)
 CH - Schweizerisches Toxikologisches Informationszentrum (STIZ): Tel. +41 145 (Switzerland)

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GB - National Poisons Information Service (NPIS) Tel. 0344 892 0111 (United Kingdom)
Members of the Public: NHS 111 (England), NHS 24 (Scotland) or NHS Direct
(Wales)

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 2020/878. 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.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
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.

Hazard pictograms:



Signal words: Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H319	Causes serious eye irritation.
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.
P501	Dispose of contents/container in accordance with local regulations.

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- P211** Do not spray on an open flame or other ignition source.
- P271** Use only outdoors or in a well-ventilated area.
- P101** If medical advice is needed, have product container or label at hand.
- P102** Keep out of reach of children.

Contains: PROPAN-2-OL
Hydrocarbons, C6, isoalkanes, <5% n-hexane
ETHYL ACETATE

2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

Flammable product, do not use on live systems.

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
Hydrocarbons, C6, isoalkanes, <5% n-hexane INDEX 649-328-00-1	35 \leq x < 39	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411, Classification note according to Annex VI to the CLP Regulation: P
EC 265-151-9 CAS 64742-49-0 REACH Reg. 012119484651-34-XXXX		
PROPANE INDEX 601-003-00-5	23 \leq x < 27	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: U
EC 200-827-9 CAS 74-98-6 REACH Reg. 01-2119486944-21-0046		
PROPAN-2-OL INDEX 603-117-00-0	20 \leq x < 23	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336
EC 200-661-7 CAS 67-63-0 REACH Reg. 01-2119457558-25-XXXX		
BUTANE INDEX 601-004-00-0	11 \leq x < 15	Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C, U
EC 203-448-7 CAS 106-97-8		

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REACH Reg. 01-2119474691-32-XXXX

ETHYL ACETATE

INDEX 607-022-00-5 1 ≤ x < 3 Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC 205-500-4

CAS 141-78-6

REACH Reg. 01-2119475103-46-XXXX

Isobutane

INDEX 601-004-00-0 1 ≤ x < 3 Flam. Gas 1A H220, Press. Gas H280

EC 200-857-2

CAS 75-28-5

REACH Reg. 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: 39,20 %

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Hydrocarbons, C6, isoalkanes, <5% n-hexane: a complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C4 through C11 and boiling in the range of approximately minus 20Å ° C to 190Å ° C (-4Å ° F to 374Å ° F).

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

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breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

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

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

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

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

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

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

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

Regulatory references:

CZE	Česká Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021

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FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία»
GRC	Ελλάδα	
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénnym a mutagénnym faktorom pri práci v znení neskorších predpisov
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020) Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; 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 98/24/EC; Directive 91/322/EEC.
EU	OEL EU	
	TLV-ACGIH	ACGIH 2022

Hydrocarbons, C6, isoalkanes, <5% n-hexane Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
NDS/NDSch	POL	500		1500		

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1301 mg/kg bw/d				
Inhalation				1137 mg/m3				5306 mg/m3
Skin				1377 mg/kg bw/d				13964 mg/kg bw/d

PROPANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	1800	1000	7200	4000	
MAK	DEU	1800	1000	7200	4000	
VLA	ESP		1000			
TLV	GRC	1800	1000			
NDS/NDSch	POL	1800				

PROPAN-2-OL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	500	200	1000	400	
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	
VLA	ESP	500	200	1000	400	
VLEP	FRA			980	400	
TLV	GRC	500	200	1000	400	
AK	HUN	500		1000		SKIN
NDS/NDSch	POL	900		1200		SKIN

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NPEL	SVK	500	200	1000	400
WEL	GBR	999	400	1250	500
TLV-ACGIH		492	200	983	400
Predicted no-effect concentration - PNEC					
Normal value in fresh water				140,9	mg/l
Normal value in marine water				140,9	mg/l
Normal value for fresh water sediment				552	mg/kg/d
Normal value for marine water sediment				552	mg/kg/d
Normal value for water, intermittent release				140,9	mg/l
Normal value of STP microorganisms				2,251	g/l
Normal value for the food chain (secondary poisoning)				160	mg/kg
Normal value for the terrestrial compartment				28	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers			Chronic systemic	Effects on workers			
	Acute local	Acute systemic	Chronic local		Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	VND	VND	26 mg/kg bw/d	VND	VND	VND	VND
Inhalation	VND	VND	VND	89 mg/m3	VND	VND	VND	500 mg/m3
Skin	VND	VND	VND	319 mg/kg bw/d	VND	VND	VND	888 mg/kg

BUTANE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
VLA	ESP		1000			Gases
VLEP	FRA	1900	800			
TLV	GRC	2350	1000			
AK	HUN	2350		9400		
NDS/NDSch	POL	1900		3000		
WEL	GBR	1450	600	1810	750	
WEL	GBR		4			RESP
TLV-ACGIH					1000	

ETHYL ACETATE**Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV	CZE	700	191,1	900	245,7	
AGW	DEU	730	200	1460	400	
MAK	DEU	750	200	1500	400	
VLA	ESP	734	200	1468	400	
VLEP	FRA	734	200	1468	400	
TLV	GRC	734	200	1468	400	
AK	HUN	734		1468		
VLEP	ITA	734	200	1468	400	
VLE	PRT	734	200	1468	400	

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NDS/NDSch	POL	734		1468	
NPEL	SVK	734	200	1468	400
WEL	GBR	734	200	1468	400
OEL	EU	734	200	1468	400
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC		
Normal value in fresh water		240 µg/l
Normal value in marine water		24 µg/l
Normal value for fresh water sediment		1,15 µg/kg
Normal value for marine water sediment		115 µg/kg
Normal value for water, intermittent release		1,65 mg/l
Normal value of STP microorganisms		650 mg/l
Normal value for the food chain (secondary poisoning)		200 mg/kg
Normal value for the terrestrial compartment		148 µg/kg/d
Normal value for the atmosphere		NPI

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			VND	4,5 mg/kg				
Inhalation	734 mg/kg	734 mg/kg	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin			VND	37 mg/kg				63 mg/kg

Isobutane Threshold Limit Value					
Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH			800		

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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

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).

CLEANER FOR ELECTRIC CONTACTS 400 ml**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.

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

Properties	Value	Information
Appearance	aerosol	
Colour	colourless	
Odour	characteristic of solvent	
Melting point / freezing point	not available	
Initial boiling point	not available	
Flammability	flammable gas	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	< 0 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	Reason for missing data:substance/mixture is non-polar/aprotic (eg: an organic solvent mixture) Method:ASTM D 445
Kinematic viscosity	0,700 mm ² /s	
Solubility	insoluble in water	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	0,60 ÷ 0,64 kg/l	Temperature: 20 °C
Relative vapour density	not available	
Particle characteristics	not applicable	

9.2. Other information**9.2.1. Information with regard to physical hazard classes**

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	99,63 % - 617,69 g/litre
Explosive properties	not applicable
Oxidising properties	not applicable

SECTION 10. Stability and reactivity**10.1. Reactivity**

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

ETHYL ACETATE

It slowly decomposes into acetic acid and ethanol due to the action of light, air and water.

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.

ETHYL ACETATE

Risk of explosion on contact with: alkaline metals,hydrides,oleum.May react violently with: fluorine,strong oxidising agents,chlorosulphuric acid,potassium tert-butoxide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating.

ETHYL ACETATE

Avoid exposure to: light,sources of heat,naked flames.

10.5. Incompatible materials

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

ETHYL ACETATE

Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.

10.6. Hazardous decomposition products

Information not available

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 hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

CLEANER FOR ELECTRIC CONTACTS 400 mlInformation 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

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

Hydrocarbons, C6, isoalkanes, <5% n-hexane

LD50 (Dermal):	> 2000 mg/kg bw rabbit
LD50 (Oral):	> 2000 mg/kg bw rat
LC50 (Inhalation vapours):	> 25 mg/l/4h air (rat)

PROPANE

LC50 (Inhalation mists/powders):	800000 ppm 15 min
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PROPAN-2-OL

LD50 (Dermal):	16,4 ml/kg rabbit
LD50 (Oral):	5840 mg/kg bw Rat
LC50 (Inhalation vapours):	> 10000 ppm/6h Rat

BUTANE

LC50 (Inhalation mists/powders):	> 1442,738 mg/l/15min rat
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ETHYL ACETATE

LD50 (Dermal):	20000 mg/kg bw rabbit
LD50 (Oral):	11,3 mg/kg bw rat
LC50 (Inhalation mists/powders):	> 22,5 mg/l/6h rat

Isobutane

LC50 (Inhalation mists/powders):	> 1442,738 mg/l/15min rat
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SKIN CORROSION / IRRITATION

CLEANER FOR ELECTRIC CONTACTS 400 ml

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Excluded because the aerosol does not allow the accumulation of a significant amount of product in the mouth

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

CLEANER FOR ELECTRIC CONTACTS 400 ml**SECTION 12. Ecological information**

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

12.1. Toxicity**BUTANE**

LC50 - for Fish > 24,11 mg/l/96h

PROPANE

LC50 - for Fish 85,82 mg/l/96h

EC50 - for Crustacea 41,82 mg/l/48h

PROPAN-2-OL

LC50 - for Fish 9,6 g/l/96h

ETHYL ACETATE

LC50 - for Fish 230 mg/l/96h

EC50 - for Algae / Aquatic Plants 100 mg/l/72h

Chronic NOEC for Fish 9,65 mg/l 32 days

Chronic NOEC for Crustacea 2,4 mg/l 21 days

Hydrocarbons, C6, isoalkanes, <5% n-hexane

LC50 - for Fish 8,41 mg/l/96h

EC50 - for Crustacea 4,7 mg/l/48h

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

Chronic NOEC for Algae / Aquatic Plants 6,47 mg/l

Isobutane

LC50 - for Fish > 24,11 mg/l/96h

12.2. Persistence and degradability**PROPANE**

Global Warming Potential (GWP): 3. Ozone Depletion Potential (ODP): 0.

BUTANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

PROPANE

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

PROPAN-2-OL

Rapidly degradable

Readily biodegradable (50%)

ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Rapidly degradable

Isobutane

Rapidly degradable

12.3. Bioaccumulative potential

CLEANER FOR ELECTRIC CONTACTS 400 ml**BUTANE**

Partition coefficient: n-octanol/water 1,09

PROPANE

Partition coefficient: n-octanol/water 1,09

PROPAN-2-OL

Partition coefficient: n-octanol/water 0,05

ETHYL ACETATE

Partition coefficient: n-octanol/water 0,68

BCF 30

12.4. Mobility in soil

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Partition coefficient: soil/water 1,78

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 \geq than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. 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.

Product residues are to be considered special hazardous waste.

Empty cans, even if completely emptied, must not be dispersed in the environment.

The aerosol container overheated to a temperature above 50 ° C may burst even if it contains a small residue of gas.

Disposal must take place in an authorized place and in compliance with the laws in force.

The transport of waste may be subject to ADR.

European waste catalog code (contaminated containers):

Aerosol as domestic waste is excluded from the application of the aforementioned rule.

The exhausted aerosol for professional / industrial use can be classified:

15.01.11 *: metallic packaging containing dangerous solid porous matrices, including empty pressure containers.

SECTION 14. Transport information**14.1. UN number or ID number**

CLEANER FOR ELECTRIC CONTACTS 400 ml

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: Environmentally Hazardous



IMDG: Marine Pollutant



IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID: HIN - Kemler: --

Limited
Quantities: 1
LTunnel
restriction
code: (D)

IMDG: Special provision: -

IMDG: EMS: F-D, S-U

Limited
Quantities: 1
L

IATA: Cargo:

Maximum
quantity: 150
KgPackaging
instructions:
203

Passengers:

Maximum
quantity: 75
KgPackaging
instructions:
203

Special provision:

A145, A167,
A802**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant

SECTION 15. Regulatory information

CLEANER FOR ELECTRIC CONTACTS 400 ml**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU: P3a-E2

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

Product
Point 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

15.2. Chemical safety assessment

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

SECTION 16. Other information

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

Flam. Gas 1A	Flammable gas, category 1A
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2

CLEANER FOR ELECTRIC CONTACTS 400 ml

Press. Gas (Liq.)	Liquefied gas
Press. Gas	Pressurised gas
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
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
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 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: 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: Regulation (EC) 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: Time-weighted average exposure limit
- TWA STEL: Short-term 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) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament

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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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- 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.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 08 / 09 / 11 / 14 / 15.