

ELECTRO DEGREASER

Revision date: 14.06.2018

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

1.1. Product identifier

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

Use of the substance/mixture

Aerosol - Washing and cleaning products
Reserved for industrial and professional use.

1.3. Details of the supplier of the safety data sheet

Company name: ECS Cleaning Solutions GmbH
Street: Wolfener Str. 32-34
Place: D-12681 Berlin
Telephone: +49 (0) 30 36464036 Telefax: +49 (0) 30 36464034
e-mail: post@elixclean.de
Internet: www.elixclean.de / www.cleancardsystems.co.uk

1.4. Emergency telephone number: +49 (0) 30 36464036
Only available during office hours.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Aerosol: Aerosol 1
Aspiration hazard: Asp. Tox. 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

Pictograms:



Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.

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H315	Causes skin irritation.
H319	Causes serious eye 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P273	Avoid release to the environment.
P391	Collect spillage.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			55 - < 60 %
	921-024-6		01-2119475514-35	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411			
106-97-8	Butane			20 - < 25 %
	203-448-7		01-2119474691-32	
	Flam. Gas 1, Liquefied gas; H220 H280			
74-98-6	Propane			10 - < 12.5 %
	200-827-9		01-2119486944-21	
	Flam. Gas 1, Liquefied gas; H220 H280			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			5 - < 10 %
	200-661-7		01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			

Full text of H and EUH statements: see section 16.

Labelling for contents according to Regulation (EC) No 648/2004

>= 30 % aliphatic hydrocarbons.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

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After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Subsequent observance for pneumonia and lung oedema.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), Foam, Extinguishing powder.

Unsuitable extinguishing media

Water.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not pierce or burn, even after use. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

Further information on handling

Heating causes rise in pressure with risk of bursting.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Aerosol - Washing and cleaning products

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane			
	Worker DNEL, long-term	dermal	systemic	773 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	2035 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	699 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	608 mg/m ³
	Consumer DNEL, long-term	oral	systemic	699 mg/kg bw/day
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	500 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	89 mg/m ³
	Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day

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PNEC values

CAS No	Substance	
	Environmental compartment	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
	Freshwater	140,9 mg/l
	Freshwater (intermittent releases)	140,9 mg/l
	Marine water	140,9 mg/l
	Freshwater sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Secondary poisoning	160 mg/kg
	Micro-organisms in sewage treatment plants (STP)	2251 mg/l
	Soil	28 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Wear eye protection/face protection. Suitable eye protection: goggles. DIN EN 166

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

DIN EN 374 Suitable material: NBR (Nitrile rubber) (0,4 mm), FKM (fluoro rubber) (0,7 mm), Breakthrough time (maximum wearing time):>480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Combination filtering device (EN 14387) A-P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
 Colour: clear
 Odour: like: Gasoline
 pH-Value: not applicable

Changes in the physical state

Melting point: not applicable
 Initial boiling point and boiling range: < -20 °C
 Flash point: < -20 °C
 Sustaining combustion: No data available

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Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

In use, may form flammable/explosive vapour-air mixture.

Lower explosion limits: 0,6 vol. %
Upper explosion limits: 15 vol. %
Ignition temperature: > 200 °C

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not applicable

Oxidizing properties

Not oxidising.

Vapour pressure: not determined

Density (at 20 °C): 0,666 g/cm³

Water solubility: practically insoluble
(at 20 °C)

Solubility in other solvents

not determined

Partition coefficient: not applicable

Viscosity / kinematic: not applicable

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable, Ignition hazard.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 2800 - 3100 mg/kg	Rat	Study report (1977)	The acute toxicity of SBP 100/140 was de
	inhalation (4 h) vapour	LC50 > 25,2 mg/l	Rat	Study report (1988)	Group of rats were exposed to test subst
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 4570 mg/kg	Rat		
	dermal	LD50 13400 mg/kg	Rabbit		
	inhalation (4 h) vapour	LC50 30 mg/l	Rat		

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane)

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information**12.1. Toxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane					
	Acute fish toxicity	LC50	11,4 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	10 - 30	72 h	Pseudokirchneriella subcapitata	Study report (1995) OECD Guideline 201
	Acute crustacea toxicity	EC50	3 mg/l	48 h	Daphnia magna	OECD Guideline 202
	Fish toxicity	NOEC mg/l	2,045	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010) The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM OECD Guideline 211
106-97-8	Butane					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish, no other information	United States Environmental Protection A The Ecosar class program has been develo
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	Algae	USEPA OPPT Risk Assessment Division (200 Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200 Calculation using ECOSAR Program v1.00.
74-98-6	Propane					
	Acute fish toxicity	LC50 mg/l	147,54	96 h	Fish, no other information	United States Enviro The Ecosar class pro
	Acute algae toxicity	ErC50 mg/l	16,47	96 h	Green algae	United States Environmental Protection A Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50 mg/l	46,6	48 h	Daphnid no other information.	United States Environmental Protection A Calculation using ECOSAR Program v1.00
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 mg/l	13299	48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	(>100 mg/l)				

12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane				
	Biodegradation	81%		28	
	Readily biodegradable (according to OECD criteria).				
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	Biodegradation	95%		21	
	Readily biodegradable (according to OECD criteria).				

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
106-97-8	Butane	2,8
74-98-6	Propane	1,81
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1.	UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS	
14.3. Transport hazard class(es):	2	
14.4. Packing group:	-	
Hazard label:	2.1	

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Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2
14.4. Packing group: -
Hazard label: 2.1



Classification code: 5F
Special Provisions: 190 327 344 625
Limited quantity: 1 L
Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
Hazard label: 2.1



Special Provisions: 63, 190, 277, 327, 344, 959
Limited quantity: 1000 mL
Excepted quantity: E0
EmS: F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1950
14.2. UN proper shipping name: AEROSOLS, flammable
14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
Hazard label: 2.1



Special Provisions: A145 A167 A802
Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0

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IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: HYDROCARBONS, LIQUID, N.O.S.

14.6. Special precautions for user

Warning: Flammable gases.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

2010/75/EU (VOC):	100 % (666 g/l)
2004/42/EC (VOC):	100 % (666 g/l)
Subcategory according to Directive 2004/42/EC:	Preparatory and cleaning - Preparatory, VOC limit value: 850 g/l
Information according to 2012/18/EU (SEVESO III):	P3a FLAMMABLE AEROSOLS
Additional information:	E2

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC
Regulation (EC) No. 648/2004 (Detergents regulation)

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,9,15,16.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Bridging principle "Aerosols"
Eye Irrit. 2; H319	Bridging principle "Aerosols"
STOT SE 3; H336	Bridging principle "Aerosols"
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)