



FLUX-OFF

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

1.1 - Product identifier

Trade name/designation FLUX-OFF
Chemical name
Product-type Mixture
Product code 705.400
UFI: PR10-90K8-Q00A-25WH

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

Relevant identified uses

- PC35: Washing and cleaning products (including solvent based products).
- Aerosols

1.3 - Details of the supplier of the safety data sheet

ECS Cleaning Solutions GmbH
Wolfener Str. 32-34
D-12681 Berlin Germany
Telephone : +49 (0)30 / 36 46 40 36
gunnar.kleinmann@ecsag.com

Distributor

ECS AG
Talstrasse 35-37
8808 Pfaffikon
Switzerland
gunnar.kleinmann@ecsag.com
+41 (0)44 / 787 53 53

1.4 - Emergency telephone number

Verwenden Sie Ihre nationale oder lokale Notrufnummer (Deutschland)
Tel. No.: +49(0)30-19240.
Schweizerisches Toxikologisches Informationszentrum (Schweiz)/ Centro svizzero di informazione tossicologica (Svizzera)/ Centre Suisse d'Information Toxicologique (Suisse)
Tel. No.: +41 44 251 51 51
Tox Info Suisse Notrufnummer: 145 (24 Stunden)/ Numero di emergenza Tox Info Suisse: 145 (24 ore)/ Tox Info Suisse Numéro d'urgence: 145 (24h/24)
Giftnotrufzentrale (Österreich)
Tel. No.: +43 1 406 4343

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Eye Irrit. 2	Eye irritation - Category 2
Asp. Tox. 1	Aspiration hazard - Category 1
Aerosol 1	Aerosol - Category 1
STOT SE 3	STOT-single exposure - Category 3 (H335)
STOT SE 3	STOT-single exposure - Category 3 (H336)
Aquatic Chronic 2	Hazardous to the aquatic environment - Aquatic Chronic 2

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2.2 - Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Contains: propan-2-ol, isopropyl alcohol, isopropanol | n-butyl acetate | 1-methoxy-2-propanol, monopropylene glycol methyl ether | Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Signal word : Danger

Hazard pictograms



Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
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.
P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of container/contents in accordance with international/local/national/regional regulation.

EUH-phrases

EUH066	Repeated exposure may cause skin dryness or cracking.
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Regulation (EC) No. 648/2004 (Detergents regulation)

Contains:

- 15% or more but less than 30%: aliphatic hydrocarbons

2.3 - Other hazards

PBT-substance.

- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

vPvB-substance.

- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Other hazards which do not result in classification

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



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SECTION 3: Composition / information on ingredients

3.1 - Substances

Not applicable

3.2 - Mixtures

Chemical name	No.	%	Class(es)	Specific concentration limit
propan-2-ol, isopropyl alcohol, isopropanol INCI: ISOPROPYL ALCOHOL	CAS No. : 67-63-0 Index No. : 603-117-00-0 EC No. : 200-661-7	>= 25 - < 30	Eye Irrit. 2 - H319 Flam. Liq. 2 - H225 STOT SE 3 - H336	Not applicable
Hydrocarbons, C6-C7, n- alkanes, isoalkanes, cyclics, <5% n-hexane	CAS No. : Index No. : EC No. : 921-024-6	>= 25 - < 30	Aquatic Chronic 2 - H411 Asp. Tox. 1 - H304 Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336	Not applicable
n-butyl acetate	CAS No. : 123-86-4 Index No. : 607-025-00-1 EC No. : 204-658-1	>= 15 - < 20	Flam. Liq. 3 - H226 STOT SE 3 - H336	Not applicable
1-methoxy-2-propanol, monopropylene glycol methyl ether INCI: METHOXYISOPROPA NOL	CAS No. : 107-98-2 Index No. : 603-064-00-3 EC No. : 203-539-1	>= 5 - < 10	Flam. Liq. 3 - H226 STOT SE 3 - H336	Not applicable
dimethoxymethane INCI: METHYLAL	CAS No. : 109-87-5 Index No. : EC No. : 203-714-2	>= 5 - < 10	Flam. Liq. 2 - H225	Not applicable
carbon dioxide INCI: CARBON DIOXIDE	CAS No. : 124-38-9 Index No. : EC No. : 204-696-9	>= 2.5 - < 5	Press. Gas (Comp.) - H280	Not applicable

SECTION 4: First aid measures

4.1 - Description of first aid measures

<u>Following inhalation</u>	- Provide fresh air. - If breathing is irregular or stopped, administer artificial respiration. - Call a physician in any case!
<u>Following skin contact</u>	- After contact with skin, wash immediately with plenty of water and soap. - Remove contaminated, saturated clothing immediately. - Wash contaminated clothing before reuse. - In case of skin irritation, consult a physician.
<u>After eye contact</u>	- In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
<u>After ingestion</u>	- Do NOT induce vomiting. - Observe risk of aspiration if vomiting occurs. - Never give anything by mouth to an unconscious person or a person with cramps. - Rinse mouth thoroughly with water. - When in doubt or if symptoms are observed, get medical advice.

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

<u>Symptoms and effects - Following inhalation</u>	- May cause drowsiness or dizziness. - Irritation to respiratory tract
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- Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

Symptoms and effects - Following skin contact

- Causes skin irritation.

Symptoms and effects - After eye contact

- Causes eye irritation.

Symptoms and effects - After ingestion

- No information available.

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

- Treat symptomatically.

- In case an intoxication is suspected, National Poisons Information Centre should be addressed immediately, number of Emergency telephone see in section 1.4.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

Suitable extinguishing media

- ABC-powder
- Carbon dioxide (CO₂)
- Foam
- Extinguishing powder

Unsuitable extinguishing media

- Full water jet

5.2 - Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture

- Extremely flammable aerosol. Pressurized container: May burst if heated.
- Vapours can form explosive mixtures with air.

Hazardous decomposition products

- No information available.

5.3 - Advice for firefighters

- Co-ordinate fire-fighting measures to the fire surroundings.
- Wear a self-contained breathing apparatus and chemical protective clothing.
- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
- Do not allow run-off from fire-fighting to enter drains or water courses.
- In case of fire and/or explosion do not breathe fumes.
- Suppress gases/vapours/mists with water spray jet.
- Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- Use personal protection equipment.
- Avoid breathing dust/fume/gas/mist/vapours/spray.
- Remove persons to safety.
- Ventilate affected area.



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- Provide adequate ventilation.
- Remove all sources of ignition.

For emergency responders - Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2 - Environmental precautions

- Do not allow uncontrolled discharge of product into the environment.
- Explosion risk.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment - No information available.

Methods and material for cleaning up - Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).
- Wash with plenty of water.

Inappropriate techniques - No information available.

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

Recommendation

- Do not breathe gas/fumes/vapour/spray.
- Do not pierce or burn, even after use.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Use only in well-ventilated areas.
- Do not spray on naked flames or any incandescent material.
- Keep away from sources of ignition - No smoking.
- Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- Take precautionary measures against static discharges.
- Vapours can form explosive mixtures with air.
- Heating causes rise in pressure with risk of bursting.

Advices on general occupational hygiene

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

7.2 - Conditions for safe storage, including any incompatibilities

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed in a cool, well-ventilated place.
- Provide adequate ventilation as well as local exhaust at critical locations.
- Keep locked up.



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- Store in a place accessible by authorized persons only.
- Keep away from: Food and feedingstuffs
- 10 -30°C
- Do not store together with: Oxidising agent
- Pyrophoric or self-heating substances

7.3 - Specific end use(s)

- Aerosols
- Washing and cleaning products

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

n-butyl acetate (123-86-4)

IOELV TWA mg/m ³ (UE)	241 mg/m ³
IOELV TWA ppm (UE)	50 ppm
IOELV STEL mg/m ³ (UE)	723 mg/m ³
IOELV STEL ppm (UE)	150 ppm

1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)

IOELV TWA mg/m ³ (UE)	375 mg/m ³
IOELV TWA ppm (UE)	100 ppm
IOELV STEL mg/m ³ (UE)	560 mg/m ³
IOELV STEL ppm (UE)	150 ppm

carbon dioxide (124-38-9)

IOELV TWA mg/m ³ (UE)	9150 mg/m ³
IOELV TWA ppm (UE)	5000 ppm
IOELV STEL mg/m ³ (UE)	27400 mg/m ³
IOELV STEL ppm (UE)	15000 ppm

DNEL / PNEC

propan-2-ol, isopropyl alcohol, isopropanol (67-63-0)

Type	Value	User	Effect
DNEL short-term oral (acute)	51 mg/kg	Consumers	Systemic
DNEL long-term oral (repeated)	26 mg/kg bw/day	Consumers	Systemic
DNEL acute inhalative	178 mg/m ³	Consumers	Systemic
DNEL acute inhalative	1000 mg/m ³	Workers	Systemic
DNEL long-term inhalative	500 mg/m ³	Workers	Systemic
DNEL long-term inhalative	89 mg/m ³	Consumers	Systemic
DNEL long-term dermal	319 mg/kg bw/day	Consumers	Systemic
DNEL long-term dermal	888 mg/kg bw/day	Workers	Systemic
PNEC aquatic, freshwater	140.9 mg/l		
PNEC aquatic, marine water	140.9 mg/l		
PNEC aquatic, intermittent release	140.9 mg/l		
PNEC sediment, freshwater	552 mg/kg		
PNEC sediment, marine water	552 mg/kg		
PNEC soil	28 mg/kg		
PNEC Secondary Poisoning	160 mg/kg		
PNEC sewage treatment plant (STP)	2251 mg/l		

n-butyl acetate (123-86-4)

Type	Value	User	Effect
DNEL short-term oral (acute)	2 mg/kg	Consumers	Systemic



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DNEL long-term oral (repeated)	2 mg/kg bw/day	Consumers	Systemic
DNEL acute inhalative	300 mg/m ³	Consumers	Local
DNEL acute inhalative	600 mg/m ³	Workers	Systemic
DNEL acute inhalative	600 mg/m ³	Workers	Local
DNEL acute inhalative	300 mg/m ³	Consumers	Systemic
DNEL long-term inhalative	35.7 mg/m ³	Consumers	Local
DNEL long-term inhalative	300 mg/m ³	Workers	Systemic
DNEL long-term inhalative	300 mg/m ³	Workers	Local
DNEL long-term inhalative	35.7 mg/m ³	Consumers	Systemic
DNEL acute dermal, short-term	6 mg/kg	Consumers	Systemic
DNEL acute dermal, short-term	11 mg/kg	Workers	Systemic
DNEL long-term dermal	11 mg/kg bw/day	Workers	Systemic
DNEL long-term dermal	6 mg/kg bw/day	Consumers	Systemic
PNEC aquatic, freshwater	0.18 mg/l		
PNEC aquatic, marine water	0.018 mg/l		
PNEC aquatic, intermittent release	0.36 mg/l		
PNEC sediment, freshwater	0.981 mg/kg		
PNEC sediment, marine water	0.098 mg/kg		
PNEC soil	0.09 mg/kg		
PNEC sewage treatment plant (STP)	35.6 mg/l		

1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)

Type	Value	User	Effect
DNEL long-term oral (repeated)	33 mg/kg bw/day	Consumers	Systemic
DNEL acute inhalative	553.5 mg/m ³	Workers	Systemic
DNEL acute inhalative	553.5 mg/m ³	Workers	Local
DNEL long-term inhalative	43.9 mg/m ³	Consumers	Systemic
DNEL long-term inhalative	369 mg/m ³	Workers	Systemic
DNEL long-term dermal	78 mg/kg bw/day	Consumers	Systemic
DNEL long-term dermal	183 mg/kg bw/day	Workers	Systemic
PNEC aquatic, freshwater	10 mg/l		
PNEC aquatic, marine water	1 mg/l		
PNEC aquatic, intermittent release	100 mg/l		
PNEC sediment, freshwater	52.3 mg/kg		
PNEC sediment, marine water	5.2 mg/kg		
PNEC soil	4.59 mg/kg		
PNEC sewage treatment plant (STP)	100 mg/l		

dimethoxymethane (109-87-5)

Type	Value	User	Effect
DNEL long-term oral (repeated)	18.1 mg/kg bw/day	Consumers	Systemic
DNEL long-term inhalative	126.6 mg/m ³	Workers	Systemic
DNEL long-term inhalative	31.5 mg/m ³	Consumers	Systemic
DNEL long-term dermal	18.1 mg/kg bw/day	Consumers	Systemic
DNEL long-term dermal	17.9 mg/kg bw/day	Workers	Systemic
PNEC aquatic, freshwater	14.577 mg/l		
PNEC aquatic, marine water	1.477 mg/l		
PNEC sediment, freshwater	13.135 mg/kg		
PNEC sediment, marine water	1.313 mg/kg		
PNEC soil	4.654 mg/kg		
PNEC sewage treatment plant (STP)	10000 mg/l		

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Type	Value	User	Effect
DNEL long-term oral (repeated)	699 mg/kg bw/day	Consumers	Systemic
DNEL long-term inhalative	2035 mg/m ³	Workers	Systemic
DNEL long-term inhalative	608 mg/m ³	Consumers	Systemic
DNEL long-term dermal	699 mg/kg bw/day	Consumers	Systemic

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DNEL long-term dermal	773 mg/kg bw/day	Workers	Systemic
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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 dust/fume/gas/mist/vapours/spray.

- Suitable eye protection: Eye glasses with side protection



Individual protection measures, such as personal protective equipment

- BS EN ISO 16321-1:2022

- 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.

- EN ISO 374

- Suitable material: NBR (Nitrile rubber)

- Thickness of the glove material: $\geq 0,4$ mm

- Suitable material: Butyl caoutchouc (butyl rubber)

- Thickness of the glove material: $\geq 0,3$ mm

- Breakthrough 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.

- This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is

- Use only respiratory protection equipment with CE-symbol including four digit test number.

- Wear anti-static footwear and clothing

Environmental exposure controls

- No information available.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

<u>Physical state</u>	Liquid	<u>Appearance</u>	Aerosol
<u>Colour</u>	colourless	<u>Odour</u>	characteristic



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Odour threshold	No data available
pH	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	42.3 °C
Flash point	-19.5 °C
Evaporation rate	No data available
flammability	No data available
Lower explosion limit	0.8 % Vol.
Upper explosion limit	13.74 % Vol.
Vapour pressure	< 20 Pa
Vapour density	No data available
Relative density	No data available
Density	0.86 g/cm ³
Solubility (Water)	No data available
Solubility (Ethanol)	No data available
Solubility (Acetone)	No data available
Solubility (Organic solvents)	No data available
Log KOC	No data available
Auto-ignition temperature	260 °C
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available

Particle characteristics

Particle size	No data available
Dustiness	No data available
Specific surface area	No data available
Shape	No data available

9.2 - Other information

VOC content	836.78 g/l 97.3%
Minimum ignition energy	No data available
Conductivity	No data available
Refractive index	No data available
Solids content	No data available
Surface tension	No data available
Saturation concentration	No data available

SECTION 10: Stability and reactivity

10.1 - Reactivity

- Extremely flammable aerosol. Pressurized container: May burst if heated.

10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 - Possibility of hazardous reactions



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- No hazardous reaction when handled and stored according to provisions.

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

- Carbon monoxide

SECTION 11: Toxicological information

11.1 - Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Toxicity : Mixture

LD50 oral (rat)	No data available
LD50 dermal (rat)	No data available
LD50 dermal (rabbit)	No data available
LC50 inhalation (rat)	No data available
LC50 inhalation dusts and mists (rat)	No data available
LC50 inhalation vapours (rat)	No data available

Toxicity : Substances

propan-2-ol, isopropyl alcohol, isopropanol (67-63-0)	
LD50 oral (rat)	5840 mg/kg
LD50 dermal (rabbit)	13900 mg/kg
LC50 inhalation vapours (rat)	5000 mg/l
n-butyl acetate (123-86-4)	
LD50 oral (rat)	14130 mg/kg
LD50 dermal (rabbit)	14112 mg/kg
LC50 inhalation vapours (rat)	> 6.6 mg/l
1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)	
LD50 oral (rat)	4277 mg/kg
LD50 dermal (rat)	11000 mg/kg
LC50 inhalation vapours (rat)	54.6 mg/l
dimethoxymethane (109-87-5)	
LD50 oral (rat)	6423 mg/kg
LD50 dermal (rat)	5000 mg/kg
LC50 inhalation (rat)	57000 ppmV
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane ()	
LD50 oral (rat)	> 5840 mg/kg
LD50 dermal (rat)	> 2920 mg/kg
LC50 inhalation vapours (rat)	> 25.2 mg/l

Skin corrosion/irritation - Based on available data, the classification criteria are not met.



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<u>Serious eye damage/eye irritation</u>	- Eye irritation - Category 2 - Causes serious eye irritation.
<u>Respiratory or skin sensitisation</u>	- Based on available data, the classification criteria are not met.
<u>Germ cell mutagenicity</u>	- Based on available data, the classification criteria are not met.
<u>Carcinogenicity</u>	- Based on available data, the classification criteria are not met.
<u>Reproductive toxicity</u>	- Based on available data, the classification criteria are not met.
<u>STOT-single exposure</u>	- STOT-single exposure - Category 3 (H335) - May cause respiratory irritation. - STOT-single exposure - Category 3 (H336) - May cause drowsiness or dizziness.
<u>STOT-repeated exposure</u>	- Based on available data, the classification criteria are not met.
<u>Aspiration hazard</u>	- Aspiration hazard - Category 1 - May be fatal if swallowed and enters airways.

11.2 - Information on other hazards

- This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 12: Ecological information

12.1 - Toxicity

Toxicity : Mixture

EC50 48 hr crustacea	No data available
LC50 96 hr fish	No data available
ErC50 algae	No data available
ErC50 other aquatic plants	No data available
NOEC chronic fish	No data available
NOEC chronic crustacea	No data available
NOEC chronic algae	No data available
NOEC chronic other aquatic plants	No data available

- Toxic to aquatic life with long lasting effects.

Toxicity : Substances

propan-2-ol, isopropyl alcohol, isopropanol (67-63-0)

EC50 48 hr crustacea	9714 mg/l Daphnia magna OECD 202
LC50 96 hr fish	9640 mg/l OECD 203
ErC50 algae	> 100 mg/l Scenedesmus subspicatus
NOEC chronic fish	> 1000 mg/l Danio rerio
NOEC chronic crustacea	> 1000 mg/l
NOEC chronic algae	1800 mg/l

n-butyl acetate (123-86-4)



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EC50 48 hr crustacea	44 mg/l Daphnia OECD 202
LC50 96 hr fish	18 mg/l OECD 203
ErC50 algae	648 mg/l Desmodesmus subspicatus
NOEC chronic crustacea	23.2 mg/l OECD 211
NOEC chronic algae	200 mg/l Desmodesmus subspicatus
1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)	
EC50 48 hr crustacea	> 500 mg/l Daphnia magna
LC50 96 hr fish	4600 mg/l < V < 10000 mg/l Leuciscus idus (golden orfe)
ErC50 algae	> 1000 mg/l Selenastrum capricornutum
carbon dioxide (124-38-9)	
EC50 48 hr crustacea	3.2 mg/l
LC50 96 hr fish	35 mg/l Oncorhynchus mykiss (Rainbow trout)
ErC50 algae	7.9 mg/l
dimethoxymethane (109-87-5)	
EC50 48 hr crustacea	> 1200 mg/l
LC50 96 hr fish	> 1000 mg/l Danio rerio OECD 203
ErC50 algae	9120 mg/l Raphidocelis subcapitata
NOEC chronic fish	450.128 mg/l
NOEC chronic crustacea	150.5 mg/l
NOEC chronic algae	145.77 mg/l

12.2 - Persistence and degradability

Mixture

Biochemical oxygen demand (BOD)	No data available
Chemical oxygen demand (COD)	No data available
% of biodegradation in 28 days	No data available

- No information available.

Substances

propan-2-ol, isopropyl alcohol, isopropanol (67-63-0)	
% of biodegradation in 28 days	95 %
n-butyl acetate (123-86-4)	
% of biodegradation in 28 days	83 %
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane ()	
% of biodegradation in 28 days	98 %



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12.3 - Bioaccumulative potential

Mixture

Bioconcentration factor (BCF)	No data available
Log KOC	No data available

- No indication of bioaccumulation potential.

Substances

propan-2-ol, isopropyl alcohol, isopropanol (67-63-0)	
Bioconcentration factor (BCF)	0.994
Log KOC	0.05
n-butyl acetate (123-86-4)	
Log KOC	200
1-methoxy-2-propanol, monopropylene glycol methyl ether (107-98-2)	
Bioconcentration factor (BCF)	< 100
Log KOC	-0.437
dimethoxymethane (109-87-5)	
Bioconcentration factor (BCF)	0.6
Log KOC	0

12.4 - Mobility in soil

- No information available.

12.5 - Results of PBT and vPvB assessment

- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
- This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 - Endocrine disrupting properties

- This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 - Other adverse effects

- No information available.

SECTION 13: Disposal considerations

13.1 - Waste treatment methods

<u>Waste treatment methods</u>	- Dispose of waste according to applicable legislation. - Handle contaminated packages in the same way as the substance itself. - This material and its container must be disposed of as hazardous waste. - Non-contaminated packages may be recycled. - Handle contaminated packages in the same way as the substance itself.
<u>Sewage disposal</u>	- No information available.
<u>Special precautions for waste treatment</u>	- No information available.
<u>Community or national or regional provisions</u>	- No information available.

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Waste codes / waste designations according to Regulation 2014/955/UE : 16 05 04* - gases in pressure containers (including halons) containing hazardous substances

SECTION 14: Transport information

14.1 - UN number or ID number

UN number (ADR) : UN1950
UN number (RID) : UN1950
UN number (ADN) : UN1950
UN number (IMDG) : UN1950
UN number (IATA) : UN1950

14.2 - UN proper shipping name

UN proper shipping name (ADR) : AEROSOLS
UN proper shipping name (RID) : AEROSOLS
UN proper shipping name (ADN) : AEROSOLS
UN proper shipping name (IMDG) : AEROSOLS
UN proper shipping name (IATA) : AEROSOLS, FLAMMABLE

14.3 - Transport hazard class(es)

ADR Transport hazard class(es) : 2
ADR Classification code: : 5F
Pictograms



Transport hazard class(es) (RID) : 2
Pictograms



Transport hazard class(es) (ADN) : 2
Pictograms



Transport hazard class(es) (IMDG) : 2

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Pictograms



Transport hazard class(es) : 2
(IATA)

Pictograms



14.4 - Packing group

Packing group :
Packing group (RID) :
Packing group (ADN) :
Packing group (IMDG) :
Packing group (IATA) :

14.5 - Environmental hazards

Environmental hazards : Yes.
Marine pollutant : Hazardous to the aquatic environment - Aquatic Chronic 2

14.6 - Special precautions for user

ADR

ADR Classification code: : 5F
ADR Special provisions : 190+327+344+625
ADR Limited quantity (LQ) : 1L
ADR Excepted quantities : E0
ADR Packing instructions :



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<u>ADR Special packing provisions</u>	:	
<u>ADR Mixed packing provisions</u>	:	
<u>Instructions for portable tanks and bulk containers</u>	:	
<u>Special provisions for portable tanks and bulk containers</u>	:	
<u>ADR tank code</u>	:	
<u>ADR tanks special provisions</u>	:	
<u>Vehicle for tank carriage</u>	:	
<u>ADR Transport category</u>	:	2
<u>ADR Tunnel restriction code</u>	:	D
<u>ADR Special provisions loading, unloading and handling</u>	:	
<u>Special provisions - Packages</u>	:	V14
<u>Special provisions - Bulk</u>	:	
<u>Special provisions - Operation</u>	:	S2
<u>ADR Hazard identification number (Kemler No.)</u>	:	

RID

<u>Special provisions</u>	:	190+327+344+625
<u>Limited quantity (LQ)</u>	:	1L
<u>Excepted quantities</u>	:	E0

ADN

<u>Special provisions</u>	:	190+327+344+625
<u>Limited quantity (LQ)</u>	:	1L
<u>Excepted quantities</u>	:	E0

IMDG

<u>Special provisions</u>	:	63 190 277 327 344 381 959
<u>Limited quantity (LQ)</u>	:	1000 mL
<u>Excepted quantities</u>	:	E0
<u>Packing instructions</u>	:	
<u>Special packing provisions</u>	:	
<u>IBC instruction(s)</u>	:	
<u>IBC provisions</u>	:	
<u>Instructions for portable tanks and bulk containers</u>	:	
<u>Special provisions for portable tanks and bulk containers</u>	:	
<u>EmS codes</u>	:	F-D, S-U
<u>Stowage and handling</u>	:	Category None SW1 SW22
<u>Segregation</u>	:	
<u>Properties and observations</u>	:	

IATA

<u>PCA - Excepted quantities</u>	:	E0
<u>PCA - Limited Quantity - Packing Instructions</u>	:	Y203
<u>PCA - Limited Quantity - Maximum Net Quantity per Package</u>	:	30kg
<u>PCA - Packing Instructions</u>	:	203
<u>PCA - Maximum Net Quantity per Package</u>	:	75kg



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<u>CAO - Packing Instructions</u>	:	203
<u>CAO - Maximum Net Quantity per Package</u>	:	150kg
<u>Special Provisions</u>	:	
<u>ERG Code</u>	:	

14.7 - Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

Substances REACH candidates None

Substances Annex XIV None

Substances Annex XVII None

VOC content 836.78 g/l

- -- COMMISSION REGULATION (EC) No 907/2006 of 20 June 2006 amending Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, in order to adapt Annexes III and VII thereto. The Regulation has been published in the Official Journal of the European Union No. L 168/5 on 21 June, 2006;

- -- COMMISSION REGULATION (EU) 2016/918 of 19 May 2016 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures. The Regulation has been published in the Official Journal of the European Union No. L 156, on 14 June, 2016;

- -- On 16 December 2008 the Regulation (EC) No. 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of chemical substances and mixtures was undersigned. The said Regulation amended and repealed the directives 67/548/EEC and 1999/45/EC and Regulation (EC) No. 1907/2006 (the REACH Regulation). The Regulation has been published in the Official Journal of the European Union No. L 353, volume 51 on 31 December, 2008;

- -- REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents (OJ L 104/1, 8.4.2004, p.001-0035);

- -- Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No.793/93, Commission Regulation (EC) No. 1488/94, Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union No. L 396, 30-12-2006, error correction – No. L 136/3, 2007-5-29);

- -- The European Agreement concerning International Carriage of Dangerous Goods by Road (ADR).

- -- COUNCIL DIRECTIVE of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers (75/324/EEC) (OJ L 147, 9.6.1975, p. 40)

- 850/2004/EC, 79/117/EEC, 689/2008/EC, 2008/47/EC

- Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

- Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

- Swiss Regulations: Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

- -- COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No. 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (OJ L 203, 26.6.2020, p. 28–58);

- Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

- E2 Hazardous to the aquatic environment in Category Chronic 2

- P3b Flammable aerosols



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- Use restriction according to REACH annex XVII, no.: 3, 40, 75, 77.

Regulation (EC) No. 648/2004 (Detergents regulation)

Contains:

- 15% or more but less than 30%: aliphatic hydrocarbons

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product

- For the following substances of this mixture a chemical safety assessment has been carried out: Propan-2-ol, Hydrocarbons, C9, aromatics, N-butyl acetate, Dimethoxymethane, 1-methoxypropan-2-ol

SECTION 16: Other information

SDS versions

Version	Issue date	Author	Description of the amendments
3	13/01/2025		
2	15/01/2024		
1	16/11/2022		

Indication of changes: Section: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16.

Abbreviations and acronyms

- ACGIH – Association advancing occupational and environmental health.
- ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
- ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.
- ADR: The Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute Toxicity Estimate.
- CAS – Chemical Abstracts Service number.
- CAS No.: Chemical Abstracts Service number.
- CEN – European Committee for Standardisation.
- DNEL: Derived no-effect level.
- EC No: European Community number
- EC50 – Effective concentration to 50% of a test population (half maximal effective concentration).
- EC50: Effective concentration of the substance that causes adverse effects in 50% of test animals.
- IATA: International Air Transport Association.
- IC50 – Inhibitory concentration to 50% of a test population (half maximal inhibitory concentration).
- ICAO: International Civil Aviation Organization
- IMDG – International Maritime Dangerous Goods.
- IMDG: International Maritime Dangerous Goods.
- IMO – International Maritime Organization.
- LC50 – Lethal Concentration to 50 % of a test population.
- LC50: Lethal Concentration to 50 % of a test animals.
- LD50 – Lethal Dose to 50% of a test population (Median Lethal Dose).
- LD50: Lethal Dose to 50% of a test animals.



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- LOEC: Lowest Observed Effect Concentration.
- LOEL: Lowest Observed Adverse Effect Level.
- MSDS – Material Safety Data Sheet.
- NIOSH – National Institute of Occupational Safety and Health.
- NOEC – No effect concentration.
- NOEC: No Observed Effect Concentration.
- NOEL: No observable effect level.
- OEL: Occupational exposure limit.
- PBT – Persistent, Bioaccumulative and Toxic substance.
- PBT: Persistent, Bioaccumulative and Toxic.
- PNEC(s) – Predicted No Effect Concentration(s).
- PNEC: Predicted no-effect concentration.
- RID – Regulations concerning the International Carriage of Dangerous Goods by Rail.
- RID: International Carriage of Dangerous Goods by Rail.
- STEL: Short-term exposure limit
- STOT – Specific Target Organ Toxicity.
- TWA: Time weighted average
- vPvB – Very Persistent and Very Bioaccumulative.
- vPvB: very Persistent and very Bioaccumulative.

Data sources:

European Chemicals Agency (ECHA)
European Chemicals Bureau (ECB)
International Laboratories Organization (ILO)

Texts of the regulatory sentences

Aerosol 1	Aerosol - Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Aquatic Chronic 2
Asp. Tox. 1	Aspiration hazard - Category 1
Eye Irrit. 2	Eye irritation - Category 2
Flam. Liq. 2	Flammable liquid and vapour. - Category 2
Flam. Liq. 3	Flammable liquid and vapour. - Category 3
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	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.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
Press. Gas (Comp.)	Compressed gas
Skin Irrit. 2	Irritation, Category 2
STOT SE 3	STOT-single exposure - Category 3 (H335)



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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.

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