

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

B-CLEAN

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

1.1. Product identifier

Product name : B-CLEAN
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Detergent according to Regulation (EC) No 648/2004
Air conditioning cleansing product

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
☎ +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
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info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Aerosol	category 1	H222: Extremely flammable aerosol.
Aerosol	category 1	H229: Pressurised container: May burst if heated.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	category 3	H336: May cause drowsiness or dizziness.

2.2. Label elements



Contains: propan-2-ol.

Signal word Danger

H-statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

P-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.

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)

Technische Schoolstraat 43 A, B-2440 Geel

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P280 Wear eye protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.

Supplemental information

EUH208 Contains: glyoxal. May produce an allergic reaction.

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
propan-2-ol 01-2119457558-25	67-63-0 200-661-7	C≤60%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	(1)(2)(10)	Constituent	
trans-1,3,3,3-tetrafluoroprop-1-ene	29118-24-9	C≤50%	Press. Gas - Liquefied gas; H280	(1)(2)	Propellant	
acetone 01-2119471330-49	67-64-1 200-662-2	C≤6%	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	(1)(2)(10)	Constituent	
glyoxal 01-2119461733-37	107-22-2 203-474-9	C≤0.5%	Muta. 2; H341 Skin Sens. 1; H317 Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319	(1)(2)(10)	Constituent	
didecyldimethylammonium chloride	7173-51-5 230-525-2	C≤0.3%	Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	(1)(10)	Constituent	M: 10 (Acute, ECHA)

- (1) For H- and EUH-statements in full: see section 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water. If irritation persists, consult a doctor/medical service.

After eye contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

4.2.1 Acute symptoms

After inhalation:

Drowsiness. Dizziness. EXPOSURE TO HIGH CONCENTRATIONS: Central nervous system depression.

After skin contact:

No effects known.

After eye contact:

Irritation of the eye tissue.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

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No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Water, Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

Major fire: Quantities of water.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (hydrofluoric acid, carbon monoxide - carbon dioxide). Pressurised container: May burst if heated.

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective goggles (EN 166). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective goggles (EN 166). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Dam up the liquid spill.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See section 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe strict hygiene.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Meet the legal requirements. Fireproof storeroom. Keep container in a well-ventilated place. Keep out of direct sunlight. Protect against frost. Max. storage time: > 365 day(s).

7.2.2 Keep away from:

Heat sources, ignition sources, (strong) acids, (strong) bases, oxidizing agents, reducing agents.

7.2.3 Suitable packaging material:

Aerosol.

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU

Acetone	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	500 ppm
	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1210 mg/m ³

Belgium

Acétone	Time-weighted average exposure limit 8 h	246 ppm
	Time-weighted average exposure limit 8 h	594 mg/m ³
	Short time value	492 ppm
	Short time value	1187 mg/m ³
Alcool isopropylique	Time-weighted average exposure limit 8 h	200 ppm
	Time-weighted average exposure limit 8 h	500 mg/m ³
	Short time value	400 ppm
	Short time value	1000 mg/m ³
Glyoxal (vapeur et aérosol)	Time-weighted average exposure limit 8 h	0.1 mg/m ³

The Netherlands

Aceton	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	500 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1210 mg/m ³
	Short time value (Public occupational exposure limit value)	1000 ppm
	Short time value (Public occupational exposure limit value)	2420 mg/m ³

France

Acétone	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	500 ppm
	Time-weighted average exposure limit 8 h (VRC: Valeur réglementaire contraignante)	1210 mg/m ³
	Short time value (VRC: Valeur réglementaire contraignante)	1000 ppm
	Short time value (VRC: Valeur réglementaire contraignante)	2420 mg/m ³
Alcool isopropylique	Short time value (VL: Valeur non réglementaire indicative)	400 ppm
	Short time value (VL: Valeur non réglementaire indicative)	980 mg/m ³

Germany

Aceton	Time-weighted average exposure limit 8 h (TRGS 900)	500 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	1200 mg/m ³
Propan-2-ol	Time-weighted average exposure limit 8 h (TRGS 900)	200 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	500 mg/m ³
trans-1,3,3,3-Tetrafluorpropen	Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	4700 mg/m ³

Austria

2-Propanol Kurzzeitwert für Großguss	Tagesmittelwert (MAK)	200 ppm
	Tagesmittelwert (MAK)	500 mg/m ³
	Kurzzeitwert 30(Miw) 4x (MAK)	800 ppm
	Kurzzeitwert 30(Miw) 4x (MAK)	2000 mg/m ³
2-Propanol	Tagesmittelwert (MAK)	200 ppm
	Tagesmittelwert (MAK)	500 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	800 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	2000 mg/m ³
Aceton	Tagesmittelwert (MAK)	500 ppm
	Tagesmittelwert (MAK)	1200 mg/m ³
	Kurzzeitwert 15(Miw) 4x (MAK)	2000 ppm
	Kurzzeitwert 15(Miw) 4x (MAK)	4800 mg/m ³

UK

Acetone	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	500 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1210 mg/m ³

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Acetone	Short time value (Workplace exposure limit (EH40/2005))	1500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	3620 mg/m ³
Propan-2-ol	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	400 ppm
	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	999 mg/m ³
	Short time value (Workplace exposure limit (EH40/2005))	500 ppm
	Short time value (Workplace exposure limit (EH40/2005))	1250 mg/m ³

USA (TLV-ACGIH)

2-propanol	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	200 ppm
	Short time value (TLV - Adopted Value)	400 ppm
Acetone	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	250 ppm
	Short time value (TLV - Adopted Value)	500 ppm
Glyoxal	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	0.1 mg/m ³ (IFV)

(IFV): Inhalable fraction and vapor

b) National biological limit values

If limit values are applicable and available these will be listed below.

Germany

Aceton (Aceton)	Urin: expositionsende, bzw. schichtende	80 mg/l	
Propan-2-ol (Aceton)	Urin: expositionsende, bzw. schichtende	25 mg/l	
Propan-2-ol (Aceton)	Vollblut: expositionsende, bzw. schichtende	25 mg/l	

USA (BEI-ACGIH)

2-Propanol (Acetone)	Urine: end of shift at end of workweek	40 mg/L	Background, Nonspecific
Acetone (Acetone)	Urine: end of shift	25 mg/L	Nonspecific

8.1.2 Sampling methods

Product name	Test	Number
Acetone (ketones 1)	NIOSH	1300
Acetone (ketones I)	NIOSH	2555
Acetone (organic and inorganic gases by Extractive FTIR)	NIOSH	3800
Acetone (Volatile Organic compounds)	NIOSH	2549
Acetone	NIOSH	2027
Acetone	NIOSH	3900
Acetone	NIOSH	8319
Acetone	OSHA	69
Isopropanol (Volatile Organic compounds)	NIOSH	2549
Isopropyl Alcohol (Alcohols I)	NIOSH	1400
Isopropyl Alcohol	NIOSH	3900
Isopropyl Alcohol	OSHA	5001

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 Threshold values

DNEL/DMEL - Workers

propan-2-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	500 mg/m ³	
	Long-term systemic effects dermal	888 mg/kg bw/day	

acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	1210 mg/m ³	
	Acute local effects inhalation	2420 mg/m ³	
	Long-term systemic effects dermal	186 mg/kg bw/day	

glyoxal

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	2.96 mg/m ³	
	Acute local effects inhalation	8.9 mg/m ³	
	Long-term local effects inhalation	40 µg/m ³	
	Long-term systemic effects dermal	6.6 mg/kg bw/day	

DNEL/DMEL - General population

propan-2-ol

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	89 mg/m ³	
	Long-term systemic effects dermal	319 mg/kg bw/day	
	Long-term systemic effects oral	26 mg/kg bw/day	

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acetone

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	200 mg/m ³	
	Long-term systemic effects dermal	62 mg/kg bw/day	
	Long-term systemic effects oral	62 mg/kg bw/day	

glyoxal

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.44 mg/m ³	
	Acute systemic effects inhalation	1.32 mg/m ³	
	Long-term local effects inhalation	10 µg/m ³	
	Long-term systemic effects dermal	2.3 mg/kg bw/day	
	Long-term systemic effects oral	0.15 mg/m ³	

PNEC

acetone

Compartments	Value	Remark
Fresh water	10.6 mg/l	
Marine water	1.06 mg/l	
Fresh water (intermittent releases)	21 mg/l	
STP	100 mg/l	
Fresh water sediment	30.4 mg/kg sediment dw	
Marine water sediment	3.04 mg/kg sediment dw	
Soil	29.5 mg/kg soil dw	

glyoxal

Compartments	Value	Remark
Fresh water	0.319 mg/l	
Marine water	0.032 mg/l	
Fresh water (intermittent releases)	1.1 mg/l	
STP	4.1 mg/l	
Fresh water sediment	0.685 mg/kg sediment dw	
Marine water sediment	0.069 mg/kg sediment dw	
Soil	6.3 mg/kg soil dw	

didecyltrimethylammonium chloride

Compartments	Value	Remark
Fresh water	1.1 µg/l	
Marine water	0.11 µg/l	
Fresh water (intermittent releases)	0.21 µg/l	
STP	0.14 mg/l	
Fresh water sediment	61.86 mg/kg sediment dw	
Marine water sediment	6.186 mg/kg sediment dw	
Soil	1.4 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Use spark-/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly.

8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type A at conc. in air > exposure limit.

b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
viton	> 480 minutes	0.7 mm	Class 6	

c) Eye protection:

Protective goggles (EN 166).

d) Skin protection:

Head/neck protection. Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Aerosol
Odour	Almost odourless
Odour threshold	No data available in the literature
Colour	Colourless
Particle size	Not applicable (aerosol)
Explosion limits	2.00 - 13.0 vol % ; Propellant
Flammability	Extremely flammable aerosol.
Log Kow	Not applicable (mixture)
Dynamic viscosity	Not applicable (aerosol)
Kinematic viscosity	Not applicable (aerosol)
Melting point	Not applicable (aerosol)
Boiling point	-19 °C - 104 °C
Relative vapour density	No data available in the literature
Vapour pressure	No data available in the literature
Solubility	Water ; complete
Relative density	0.79 ; 20 °C
Absolute density	790 kg/m ³ ; 20 °C
Decomposition temperature	No data available in the literature
Auto-ignition temperature	Not applicable (aerosol)
Flash point	Not applicable (aerosol)
pH	No data available in the literature

9.2. Other information

Evaporation rate	5.6 ; Butyl acetate
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SECTION 10: Stability and reactivity

10.1. Reactivity

May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Use spark/explosionproof appliances and lighting system. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

(strong) acids, (strong) bases, oxidizing agents, reducing agents.

10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (hydrofluoric acid, carbon monoxide - carbon dioxide).

SECTION 11: Toxicological information

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

11.1.1 Test results

Acute toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	Equivalent to OECD 401	5840 mg/kg bw		Rat	Experimental value	
Dermal	LD50	Equivalent to OECD 402	16400 ml/kg bw	24 h	Rabbit	Experimental value	
Inhalation (vapours)	LC50	Equivalent to OECD 403	> 10000 ppm	6 h	Rat (male / female)	Experimental value	

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Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		5800 mg/kg		Rat (female)	Experimental value	
Dermal	LD50		> 15800 mg/kg bw	24 h	Rabbit (male)	Experimental value	
					(male)		

glyoxal

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	3300 mg/kg bw		Rat (male / female)	Experimental value	
							Aqueous solution
Dermal	LD50	Equivalent to OECD 402	> 2000 mg/kg	24 h	Rat (male / female)	Experimental value	
Inhalation (mist)	LC50	OECD 403	2.44 mg/l	4 h	Rat (male / female)	Experimental value	Aqueous solution

didecyldimethylammonium chloride

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	264 mg/kg bw		Rat (female)	Experimental value	
Dermal	LD50	OECD 402	> 2000 mg/kg bw		Rat (male / female)	Experimental value	
Inhalation						Data waiving	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

B-CLEAN

No (test)data on the mixture available

Classification is based on the relevant ingredients

propan-2-ol

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	Equivalent to OECD 405		1; 2; 3; 4; 7; 10; 14 days	Rabbit	Experimental value	Single treatment without rinsing
Skin	Not irritating		4 h	4; 24; 48; 72 hours	Rabbit	Experimental value	

acetone

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	OECD 405	24 h	24; 72 hours	Rabbit	Experimental value	Single treatment with rinsing
Skin	Not irritating		3 day(s)	24; 48; 72 hrs; 4 days	Guinea pig	Experimental value	
Inhalation	Slightly irritating	Human observation study	20 minutes		Human	Literature study	

glyoxal

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Irritating	Equivalent to OECD 405	24 h	24 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Irritating	Equivalent to OECD 404	24 h	24 hours	Rabbit	Experimental value	

didecyldimethylammonium chloride

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin	Corrosive	OECD 404	3 minutes - 240 minutes	1; 24; 48; 72 hrs; 7; 14 days	Rabbit	Experimental value	

Conclusion

Causes serious eye irritation.

Not classified as irritating to the skin

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

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propan-2-ol

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Dermal	Not sensitizing	OECD 406			Guinea pig (male / female)	Experimental value	

acetone

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	Guinea pig maximisation test			Guinea pig (female)	Experimental value	
Skin	Not sensitizing	Human observation			Human	Experimental value	

glyoxal

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Sensitizing	OECD 406			Guinea pig (female)	Experimental value	Aqueous solution

didecyldimethylammonium chloride

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406			Guinea pig (female)	Experimental value	

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

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No (test) data on the mixture available

Classification is based on the relevant ingredients

propan-2-ol

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral								Data waiving
Dermal								Data waiving
Inhalation (vapours)	NOAEC	OECD 451	5000 ppm		No adverse systemic effects	104 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation (vapours)	Dose level	Equivalent to OECD 403	5000 ppm	Central nervous system	Drowsiness, dizziness	6 h	Rat (male / female)	Experimental value

acetone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	Equivalent to OECD 408	4.86 mg/kg bw/day - 5.95 mg/kg bw/day		No effect	13 week(s)	Mouse (male / female)	Experimental value
Oral (drinking water)	LOAEL	Equivalent to OECD 408	11.3 mg/kg bw/day	Liver	Histopathology		Mouse (female)	Experimental value
Dermal								Data waiving
Inhalation (vapours)	NOAEC	Subchronic toxicity test	19000 ppm		No effect	8 weeks (5 days / week)	Rat (male)	Experimental value
Inhalation (vapours)	Dose level	Human observation study	361 ppm	Central nervous system	neurotoxic effects	2 day(s)	Human	Epidemiological study

glyoxal

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (drinking water)	NOAEL	OECD 453	25 mg/kg bw/day		No adverse systemic effects	24 month(s)	Rat (male / female)	Experimental value
Dermal	NOAEL local effects	Subacute toxicity test	63 mg/kg bw/day	Skin	No effect	2 weeks (daily)	Mouse (male)	Experimental value
Dermal	NOAEL systemic effects	Subacute toxicity test	125 mg/kg bw/day	Skin	No adverse systemic effects	2 weeks (daily)	Mouse (male)	Experimental value
Inhalation (aerosol)	NOAEC	OECD 412	0.0006 mg/l air	Respiratory tract	No effect	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value
Inhalation	LOAEC	OECD 412	0.0023 mg/l air	Respiratory tract	Histopathological changes	4 weeks (6h / day, 5 days / week)	Rat (male / female)	Experimental value

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didecyldimethylammonium chloride

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 453	27.3 mg/kg bw/day - 33.8 mg/kg bw/day		No effect	52 week(s)	Rat (male / female)	Experimental value
Oral (diet)	LOAEL	OECD 453	55.4 mg/kg bw/day - 69.5 mg/kg bw/day		Body weight gain	52 week(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation								Data waiving

Conclusion

May cause drowsiness or dizziness.
Not classified for subchronic toxicity

Mutagenicity (in vitro)

B-CLEAN

No (test)data on the mixture available
Judgement is based on the relevant ingredients
propan-2-ol

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 476	Chinese hamster ovary (CHO)	No effect	Experimental value	

acetone

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 471	Bacteria (S.typhimurium)	No effect	Experimental value	
Negative with metabolic activation, negative without metabolic activation	Equivalent to OECD 473	Chinese hamster ovary (CHO)	No effect	Experimental value	

glyoxal

Result	Method	Test substrate	Effect	Value determination	Remark
Ambiguous	OECD 476	Mouse (lymphoma L5178Y cells)		Experimental value	Aqueous solution
Positive with metabolic activation, positive without metabolic activation	OECD 471	Bacteria (S.typhimurium)	Increased number of mutant colonies	Experimental value	Aqueous solution

didecyldimethylammonium chloride

Result	Method	Test substrate	Effect	Value determination	Remark
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value	
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes		Experimental value	

Mutagenicity (in vivo)

B-CLEAN

No (test)data on the mixture available
Judgement is based on the relevant ingredients
propan-2-ol

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Intraperitoneal)	Equivalent to OECD 474		Mouse (male / female)		Experimental value

acetone

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (drinking water))	Micronucleus test	13 week(s)	Mouse (male / female)		Literature study

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glyoxal

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 486		Rat (male / female)		Experimental value

didecyldimethylammonium chloride

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative (Oral (stomach tube))	OECD 486		Rat (male)		Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

B-CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (vapours)	NOEL	OECD 451	5000 ppm	104 weeks (6h / day, 5 days / week)	Rat (male / female)	No carcinogenic effect		Experimental value

acetone

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Dermal	NOEL	Carcinogenic toxicity study	79 mg		Mouse (female)	No carcinogenic effect		Literature study

glyoxal

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)	NOAEL	OECD 453	> 300 mg/kg bw/day	24 month(s)	Rat (male / female)	No carcinogenic effect		Experimental value

didecyldimethylammonium chloride

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (diet)	Dose level	OECD 453	55.4 mg/kg bw/day - 69.5 mg/kg bw/day	104 week(s)	Rat (male / female)	No carcinogenic effect		Experimental value

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

B-CLEAN

No (test)data on the mixture available

Judgement is based on the relevant ingredients

propan-2-ol

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	400 mg/kg bw/day	10 day(s)	Rat	No effect	Foetus	Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	Equivalent to OECD 414	400 mg/kg bw/day	10 day(s)	Rat	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	Equivalent to OECD 415	853 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

acetone

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Inhalation (aerosol))	NOAEC	Equivalent to OECD 414	2200 ppm	14 days (gestation, daily)	Rat	No effect	Foetus	Experimental value
	LOAEC	Equivalent to OECD 414	11000 mg/kg bw/day	14 days (gestation, daily)	Rat	Fetotoxicity	Foetus	Experimental value
Maternal toxicity (Inhalation (aerosol))	NOAEC	Equivalent to OECD 414	2200 ppm	14 days (gestation, daily)	Rat	No effect		Experimental value
	LOAEC	Equivalent to OECD 414	11000 ppm	14 days (gestation, daily)	Rat	Maternal toxicity		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL		900 mg/kg bw/day	13 week(s)	Rat (male)	No effect		Experimental value
	LOAEL		3400 mg/kg bw/day	13 week(s)	Rat (male)	Adverse effects on fertility	Male reproductive organ	Experimental value

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glyoxal

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	125 mg/kg bw/day	14 day(s)	Rat	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	25 mg/kg bw/day	14 day(s)	Rat	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	OECD 416	400 mg/kg bw/day		Rat (male / female)	No effect		Experimental value

didecyldimethylammonium chloride

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (stomach tube))	NOAEL	OECD 414	12 mg/kg bw/day	23 days (gestation, daily)	Rabbit	No effect		Experimental value
Maternal toxicity (Oral (stomach tube))	NOAEL	OECD 414	4 mg/kg bw/day	23 days (gestation, daily)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (diet))	NOAEL	OECD 416	1500 ppm		Rat (male / female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Aspiration hazard

Judgement is based on the relevant ingredients
Not classified for aspiration toxicity

Toxicity other effects

B-CLEAN

acetone

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Skin				Skin	Skin dryness or cracking			Literature study

Chronic effects from short and long-term exposure

B-CLEAN

Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

B-CLEAN

No (test) data on the mixture available

Judgement of the mixture is based on the relevant ingredients

propan-2-ol

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	9640 mg/l - 10000 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Lethal
Acute toxicity crustacea	LC50	Equivalent to OECD 202	> 10000 mg/l	24 h	Daphnia magna	Static system	Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	Toxicity threshold		1800 mg/l	7 day(s)	Scenedesmus quadricauda	Static system	Fresh water	Experimental value; Toxicity test
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC		2344 µmol/l	16 day(s)	Daphnia magna		Fresh water	Experimental value; Growth
Toxicity aquatic micro-organisms	Toxicity threshold	Equivalent to DIN 38412/8	1050 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Toxicity test
	EC50	ISO 8192	41676 mg/l	30 minutes	Activated sludge			Experimental value

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acetone

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	Equivalent to OECD 203	6210 mg/l - 8120 mg/l	96 h	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Measured concentration
Acute toxicity crustacea	LC50		8800 mg/l	48 h	Daphnia pulex	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	NOEC		530 mg/l		Algae		Fresh water	
Long-term toxicity aquatic crustacea	NOEC	Equivalent to OECD 211	2212 mg/l	28 day(s)	Daphnia magna	Flow-through system	Fresh water	Experimental value
Toxicity aquatic micro-organisms	EC50	Equivalent to OECD 209	61.15 g/l	30 minutes	Activated sludge	Static system	Fresh water	Experimental value
	EC50		1700 mg/l		Pseudomonas putida			Literature study; Inhibition

glyoxal

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	DIN 38412-15	464 mg/l - 681 mg/l	96 h	Leuciscus idus	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	EU Method C.2	404 mg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value; Nominal concentration
Toxicity algae and other aquatic plants	EC50	EU Method C.3	> 100 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
	NOEC	EU Method C.3	3.1 mg/l	72 h	Desmodesmus subspicatus	Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	OECD 210	112 mg/l	34 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; GLP
Long-term toxicity aquatic crustacea	NOEC	OECD 211	3.2 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental value; GLP

didecyldimethylammonium chloride

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	OECD 203	0.49 mg/l	96 h	Danio rerio	Semi-static system		Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	0.029 mg/l	48 h	Daphnia magna	Static system		Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	0.062 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Nominal concentration
	NOEC	OECD 201	0.013 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Long-term toxicity aquatic crustacea	NOEC	OECD 211	0.021 mg/l	21 day(s)	Daphnia magna	Semi-static system		Experimental value; Reproduction

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

propan-2-ol

Biodegradation water

Method	Value	Duration	Value determination
EU Method C.5	53 %; Oxygen consumption	5 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	17.668 h	1.5E6 /cm ³	Calculated value

acetone

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	90.9 %	28 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN v1.92	52.431 day(s)	1.5E6 /cm ³	Calculated value

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glyoxal

Biodegradation water

Method	Value	Duration	Value determination
OECD 301A	90 % - 100 %; GLP	19 day(s)	Experimental value

Phototransformation air (DT50 air)

Method	Value	Conc. OH-radicals	Value determination
AOPWIN	11 h	1.5E6 /cm ³	Calculated value

didecyldimethylammonium chloride

Biodegradation water

Method	Value	Duration	Value determination
OECD 301B	71 %; GLP	28 day(s)	Experimental value

Conclusion

Water

The surfactant(s) is/are biodegradable according to Regulation (EC) No 648/2004

12.3. Bioaccumulative potential

B-CLEAN

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

propan-2-ol

Log Kow

Method	Remark	Value	Temperature	Value determination
		0.05	25 °C	Weight of evidence approach

acetone

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
BCF		0.69		Pisces	Literature study

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.23		Test data

glyoxal

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.2	23 °C	Experimental value

didecyldimethylammonium chloride

Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		2.6	20 °C	Experimental value

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

propan-2-ol

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.185 - 0.541	Calculated value

acetone

(log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	0.374 - 0.988	Calculated value

glyoxal

(log) Koc

Parameter	Method	Value	Value determination
log Koc	OECD 121	0.32	Experimental value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Mackay level I	4 %				96 %	Calculated value

B-CLEAN

didecyldimethylammonium chloride

(log) Koc

Parameter	Method	Value	Value determination
log Koc		4.2	Calculated value

Percent distribution

Method	Fraction air	Fraction biota	Fraction sediment	Fraction soil	Fraction water	Value determination
Fugacity Model Level III	0.18 %		54 %	39 %	6.6 %	Calculated value

Conclusion

Contains component(s) that adsorb(s) into the soil
Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

B-CLEAN

Greenhouse gases

Contains component(s) included in the list of substances which may contribute to the greenhouse effect (IPCC)
Contains component(s) included in Annex II of the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

propan-2-ol

Groundwater

Groundwater pollutant

acetone

Groundwater

Groundwater pollutant

glyoxal

Groundwater

Groundwater pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Specific treatment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	aerosols
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14.3. Transport hazard class(es)

Hazard identification number	
Class	2
Classification code	5F

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14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number

UN number	1950
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14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

14.3. Transport hazard class(es)

Hazard identification number	23
Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1. UN number/ID number

UN number/ID number	1950
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14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

14.3. Transport hazard class(es)

Class	2
Classification code	5F

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number

UN number	1950
-----------	------

14.2. UN proper shipping name

Proper shipping name	aerosols
----------------------	----------

14.3. Transport hazard class(es)

Class	2.1
-------	-----

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	190
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Special provisions	277
Special provisions	327
Special provisions	344
Special provisions	381
Special provisions	63
Special provisions	959
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

14.7. Maritime transport in bulk according to IMO instruments

Annex II of MARPOL 73/78	Not applicable
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Air (ICAO-TI/IATA-DGR)

14.1. UN number/ID number

UN number/ID number	1950
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14.2. UN proper shipping name

Proper shipping name	aerosols, flammable
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14.3. Transport hazard class(es)

Class	2.1
-------	-----

14.4. Packing group

Packing group	
Labels	2.1

14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

14.6. Special precautions for user

Special provisions	A145
Special provisions	A167
Special provisions	A802

Passenger and cargo transport

Limited quantities: maximum net quantity per packaging	30 kg G
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SECTION 15: Regulatory information

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

European legislation:

Explosives precursors

Due to the presence of one or more components in this mixture, acquisition, introduction, possession or use of this product by the general public is restricted by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

VOC content Directive 2010/75/EU

VOC content	Remark
98.8 %	
896.1 g/l	

Directive 2012/18/EU (Seveso III)

Threshold values under normal circumstances

Substance or category	Low tier (tonnes)	Top tier (tonnes)	Group	For this substance or mixture the summation rule has to be applied for:
P3b FLAMMABLE AEROSOLS	5000 (net)	50000 (net)	None	Flammability

Prior informed consent (PIC)

Contains component(s) listed in Annex I of Regulation (EU) No 649/2012: Part 1 - List of chemicals subject to export notification procedure

Ingredients according to Regulation (EC) No 648/2004 and amendments

≥30% halogenated hydrocarbons, <5% disinfectants, <5% cationic surfactants

European drinking water standards (98/83/EC and 2020/2184)

didecyldimethylammonium chloride

Parameter	Parametric value	Note	Reference
Chloride	250 mg/l		Listed in Annex I, Part C, of Directive (EU) 2020/2184 on the quality of water intended for human consumption.

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· propan-2-ol · acetone · glyoxal	Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even

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	<p>types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;</p> <p>(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;</p> <p>(c) hazard class 4.1;</p> <p>(d) hazard class 5.1.</p>	<p>with ornamental aspects,</p> <p>2. Articles not complying with paragraph 1 shall not be placed on the market.</p> <p>3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:</p> <ul style="list-style-type: none"> — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with H304, <p>4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).</p> <p>5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:</p> <ul style="list-style-type: none"> a) lamp oils, labelled with H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life-threatening lung damage”; b) grill lighter fluids, labelled with H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
<ul style="list-style-type: none"> · propan-2-ol · acetone 	<p>Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not.</p>	<p>1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:</p> <ul style="list-style-type: none"> — metallic glitter intended mainly for decoration, — artificial snow and frost, — “whoopee” cushions, — silly string aerosols, — imitation excrement, — horns for parties, — decorative flakes and foams, — artificial cobwebs, — stink bombs. <p>2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:</p> <p>“For professional users only”.</p> <p>3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/ 324/EEC.</p> <p>4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.</p>
<ul style="list-style-type: none"> · propan-2-ol · acetone · glyoxal · didecylidimethylammonium chloride 	<p>Substances falling within one or more of the following points:</p> <p>(a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008:</p> <ul style="list-style-type: none"> — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye irritant category 2 <p>(b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council</p> <p>(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.</p> <p>The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.</p>	<p>Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081</p>

National legislation Belgium
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No data available

Reason for revision: 3.2

Publication date: 2000-08-08

Date of revision: 2023-03-22

Revision number: 0801

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propan-2-ol

Agents cancérogènes, mutagènes et reprotoxiques (Code du bien-être au travail, Livre VI, titre 2)	alcool isopropylique; VI.2.2.; Liste des procédés au cours desquels une substance ou un mélange se dégage; Procédé à l'acide fort dans la fabrication d'alcool isopropylique.
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National legislation The Netherlands

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Waterbezwaarlijkheid	B (2); Algemene Beoordelingsmethodiek (ABM)
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National legislation France

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No data available

National legislation Germany

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Lagerklasse (TRGS510)	2B: Aerosolpackungen und Feuerzeuge
WGK	2; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017

propan-2-ol

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Propan-2-ol; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

acetone

TA-Luft	5.2.5
TRGS900 - Risiko der Fruchtschädigung	Aceton; Y; Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes nicht befürchtet zu werden

glyoxal

TA-Luft	5.2.5/I
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didecyldimethylammonium chloride

TA-Luft	5.2.5/I
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National legislation Austria

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No data available

National legislation United Kingdom

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No data available

Other relevant data

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No data available

propan-2-ol

IARC - classification	3; Isopropanol
TLV - Carcinogen	2-propanol; A4

acetone

TLV - Carcinogen	Acetone; A4
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glyoxal

TLV - Skin Sensitisation	Glyoxal; SEN; Sensitization
TLV - Carcinogen	Glyoxal; A4

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

- 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.
- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H341 Suspected of causing genetic defects.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- EUH066 Repeated exposure may cause skin dryness or cracking.
- EUH208 Contains a sensitising substance. May produce an allergic reaction.

Reason for revision: 3.2

Publication date: 2000-08-08

Date of revision: 2023-03-22

Revision number: 0801

BIG number: 32266

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(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BEI	Biological Exposure Indices
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC10	Effect Concentration 10 %
EC50	Effect Concentration 50 %
Erc50	EC50 in terms of reduction of growth rate
GLP	Good Laboratory Practice
LC0	Lethal Concentration 0 %
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
LOAEC/LOAEL	Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.