SAFETY DATA SHEET

Graffiti Fjerner CL-157

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

1.1. Product identifier

▼Trade name

Graffiti Fjerner CL-157

Unique formula identifier (UFI)

38XM-80R1-R00V-2DPP

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

Relevant identified uses of the substance or mixture

Rensemiddel

Use descriptors (REACH)

Sectors of use	**Description**
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
LCS "C"	Consumer uses: Private households (= general public = consumers)
Product category	**Description**
PC 24	Lubricants, Greases and Release Products
Process category	**Description**
PROC 11	Non industrial spraying
Environmental release category	**Description**
ERC 8a	Wide dispersive indoor use of processing aids in open systems

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

▼Company and address

Pureno A/S
Gefionsvej 20
3400 Hillerød
Denmark
+45 70 260 267

▼Contact person

Lars Skaarup

▼E-mail

ls@pureno.dk

Revision

17/10/2024

SDS Version

3.0

Date of previous version

21/08/2023 (2.0)

1.4. Emergency telephone number

Contact the poison hotline: +45 82 12 12 12 (24 hour service)
See section 4 “First aid measures”.

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

2.1. Classification of the substance or mixture

Aerosol 1; H222, H229, Extremely flammable aerosol. Pressurised container: May burst if heated.

Skin Irrit. 2; H315, Causes skin irritation.
Eye Irrit. 2; H319, Causes serious eye irritation.

This product is an aerosol dispenser where the propellant is separated from the product upon spraying. As a result, the concentrations of the propellants are not considered for the classification of the mixture in regard of health and environment.

2.2. Label elements

Hazard pictogram(s)

Signal word

Danger

Hazard statement(s)

Extremely flammable aerosol. Pressurised container: May burst if heated. (H222, H229)
Causes skin irritation. (H315)
Causes serious eye irritation. (H319)

Precautionary statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

▼Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
Do not spray on an open flame or other ignition source. (P211)
Do not pierce or burn, even after use. (P251)
Wash hands thoroughly after handling. (P264)
Wear eye protection/protective gloves/protective clothing. (P280)

▼Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
If eye irritation persists: Get medical advice/attention. (P337+P313)

Storage

Protect from sunlight. Do no expose to temperatures exceeding 50 °C/122°F. (P410+P412)

▼Disposal

-

Hazardous substances

None known.

Additional labelling

UFI: 38XM-80R1-R00V-2DPP

2.3. Other hazards

▼Additional warnings

In the event of leaks, high concentrations of gases can quickly form. They can be toxic, asphyxiating, or explosive.
This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.
This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. ▼Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
dimethoxymethan	CAS No.: 109-87-5 EC No.: 203-714-2 REACH: Index No.:	40-60%	Flam. Liq. 2, H225	
Propane	CAS No.: 74-98-6	15-25%	Flam. Gas 1A, H220	[16]

	EC No.: 200-827-9 REACH: Index No.: 601-003-00-5			
1,3-dioxolane	CAS No.: 646-06-0 EC No.: 211-463-5 REACH: 01-2119490744-29-XXXX Index No.: 605-017-00-2	5-10%	Flam. Liq. 2, H225 Eye Irrit. 2, H319	
propan-2-ol;isopropyl alcohol;isopropanol	CAS No.: 67-63-0 EC No.: 200-661-7 REACH: Index No.: 603-117-00-0	5-10%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	
ethanol	CAS No.: 64-17-5 EC No.: 200-578-6 REACH: 01-2120063206-63-XXXX Index No.: 603-002-00-5	5-10%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 (SCL: 50.00 %)	
Butane	CAS No.: 106-97-8 EC No.: 203-448-7 REACH: Index No.: 601-004-00-0	1-3%	Flam. Gas 1A, H220	[16]
Ethyl Methyl Ketone - (Butanon)	CAS No.: 78-93-3 EC No.: 201-159-0 REACH: Index No.: 606-002-00-3	1-3%	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]
2-aminoethanol	CAS No.: 141-43-5 EC No.: 205-483-3 REACH: Index No.: 603-030-00-8	1-3%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Acute Tox. 4, H332 STOT SE 3, H335 (SCL: 5.00 %) Aquatic Chronic 3, H412	[1]
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	CAS No.: EC No.: 918-481-9 REACH: 01-2119457273-39-XXXX Index No.:	1-3%	EUH066 Asp. Tox. 1, H304	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit.
[16] Propellant

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.
Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT

use solvents or thinners.
If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.
In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.
Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.
Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurised container. In a fire or if heated, a pressure increase will occur and the container may burst.
In use may form flammable/explosive vapour-air mixture.
Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.
If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:
Nitrogen oxides (NO_x)
Carbon oxides (CO / CO2)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the chemical emergency services on 72 85 20 00 (24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Accidental releases always pose a serious risk of fire or explosion.
Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.
Avoid direct contact with spilled substances.
Ensure adequate ventilation, especially in confined areas.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.
Keep unauthorized persons away from the spill

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste.
See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid static electricity.
Protect electrical equipment in accordance with current standards. To divert static electricity during transmission, containers must be grounded and connected by wire with the receiving containers. Do not use spark-forming tools.
Do not spray on an open flame or other ignition source.
Do not pierce or burn, even after use.
Smoking, drinking and consumption of food is not allowed in the work area.
See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits.
Must be stored in a cool and well-ventilated area, away from possible sources of ignition.
Pressurized gas packs (spray cans, aerosol cans) must be stored behind a wire mesh, which allows gases to escape and holds back packs flying around.

Recommended storage material

Always store in containers of the same material as the original container.

Storage conditions

> 0°C
< 50°C

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. ▼Control parameters

dimethoxymethan
Long term exposure limit (8 hours) (mg/m^3): 3100
Long term exposure limit (8 hours) (ppm): 1000
Short term exposure limit (15 minutes) (mg/m^3): 6200
Short term exposure limit (15 minutes) (ppm): 2000

Propane
Long term exposure limit (8 hours) (mg/m^3): 1800
Long term exposure limit (8 hours) (ppm): 1000
Short term exposure limit (15 minutes) (mg/m^3): 3600
Short term exposure limit (15 minutes) (ppm): 2000

propan-2-ol;isopropyl alcohol;isopropanol
Long term exposure limit (8 hours) (mg/m^3): 490
Long term exposure limit (8 hours) (ppm): 200
Short term exposure limit (15 minutes) (mg/m^3): 980
Short term exposure limit (15 minutes) (ppm): 400

ethanol
Long term exposure limit (8 hours) (mg/m^3): 1900
Long term exposure limit (8 hours) (ppm): 1000
Short term exposure limit (15 minutes) (mg/m^3): 3800
Short term exposure limit (15 minutes) (ppm): 2000

Butane
Long term exposure limit (8 hours) (mg/m^3): 1200

Long term exposure limit (8 hours) (ppm): 500
Short term exposure limit (15 minutes) (mg/m³): 2400
Short term exposure limit (15 minutes) (ppm): 1000

Ethyl Methyl Ketone - (Butanon)
Long term exposure limit (8 hours) (mg/m³): 145
Long term exposure limit (8 hours) (ppm): 50
Short term exposure limit (15 minutes) (mg/m³): 900
Short term exposure limit (15 minutes) (ppm): 300
Annotations:
E = Substance has an EC limit.
H = The substance can be absorbed through the skin.

2-aminoethanol
Long term exposure limit (8 hours) (mg/m³): 2,5
Long term exposure limit (8 hours) (ppm): 1
Short term exposure limit (15 minutes) (mg/m³): 7,6
Short term exposure limit (15 minutes) (ppm): 3
Annotations:
E = Substance has an EC limit.
H = The substance can be absorbed through the skin.

Statutory order 291 on exposure limits for substances and mixtures (19/03/2024)

DNEL

1,3-dioxolane

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1.31 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1.18 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	4.52 mg/m³
Long term – Systemic effects - Workers	Inhalation	3.306 mg/m³
Long term – Systemic effects - General population	Oral	1.31 mg/kg bw/day

2-aminoethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	0,24mg/kg bw/day
Long term – Systemic effects - General population	Dermal	1.5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	3 mg/kg bw/day
Long term – Local effects - General population	Inhalation	280 µg/m³
Long term – Local effects - Workers	Inhalation	510 µg/m³
Long term – Systemic effects - General population	Inhalation	2 mg/m3
Long term – Systemic effects - General population	Inhalation	180 µg/m³
Long term – Systemic effects - Workers	Inhalation	3,3 mg/m3
Long term – Systemic effects - Workers	Inhalation	1 mg/m³
Long term – Systemic effects - General population	Oral	3,75 mg/kg bw/day
Long term – Systemic effects - General population	Oral	1.5 mg/kg bw/day

dimethoxymethan

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	5,7 mg/kg bw/day
Long term – Systemic effects - General population	Dermal	18.1 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	22mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	17.9 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	39 mg/m3

Long term – Systemic effects - General population	Inhalation	31.5 mg/m³
Long term – Systemic effects - Workers	Inhalation	132 mg/m3
Long term – Systemic effects - Workers	Inhalation	126.6 mg/m³
Long term – Systemic effects - General population	Oral	9,6 mg/kg bw/day
Long term – Systemic effects - General population	Oral	18.1 mg/kg bw/day

ethanol

Duration:	**Route of exposure:**	**DNEL:**
Long term – Systemic effects - General population	Dermal	206 mg/kg legemsvægt pr. dag
Long term – Systemic effects - General population	Dermal	206 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	343 mg/kg legemsvægt pr. dag
Long term – Systemic effects - Workers	Dermal	343 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	114 mg/m3
Long term – Systemic effects - General population	Inhalation	114 mg/m³
Long term – Systemic effects - Workers	Inhalation	950 mg/m3
Long term – Systemic effects - Workers	Inhalation	380 mg/m³
Short term – Local effects - General population	Inhalation	950 mg/m3
Short term – Local effects - General population	Inhalation	950 mg/m³
Short term – Local effects - Workers	Inhalation	1900 mg/m3
Short term – Local effects - Workers	Inhalation	1900 mg/m³
Long term – Systemic effects - General population	Oral	87 mg/kg legemsvægt pr. dag
Long term – Systemic effects - General population	Oral	87 mg/kg bw/day

Ethyl Methyl Ketone - (Butanon)

Duration:	**Route of exposure:**	**DNEL:**
Long term – Systemic effects - General population	Dermal	412 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1161 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	106 mg/m³
Long term – Systemic effects - Workers	Inhalation	600 mg/m³
Short term – Systemic effects - General population	Inhalation	450 mg/m³
Short term – Systemic effects - Workers	Inhalation	900 mg/m³
Long term – Systemic effects - General population	Oral	31 mg/kg bw/day

propan-2-ol;isopropyl alcohol;isopropanol

Duration:	**Route of exposure:**	**DNEL:**
Long term – Systemic effects - General population	Dermal	319mg/kg bw/dag
Long term – Systemic effects - General population	Dermal	319 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	888 mg/kg bw/dag
Long term – Systemic effects - Workers	Dermal	888 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	89mg/m3
Long term – Systemic effects - General population	Inhalation	89 mg/m³
Long term – Systemic effects - Workers	Inhalation	500 mg7m3
Long term – Systemic effects - Workers	Inhalation	500 mg/m³
Short term – Systemic effects - General population	Inhalation	178 mg/m³
Short term – Systemic effects - Workers	Inhalation	1000 mg/m³
Long term – Systemic effects - General population	Oral	26mg/kg bw/dag

Long term – Systemic effects - General population	Oral	26 mg/kg bw/day
Short term – Systemic effects - General population	Oral	51 mg/kg bw/day

PNEC

1,3-dioxolane

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		19.7 mg/L
Freshwater sediment		77.7 mg/kg
Intermittent release (freshwater)		950 µg/L
Marine water		1.97 mg/L
Marine water sediment		7.77 mg/kg
Sewage treatment plant		1 mg/L
Soil		2.62 mg/kg

2-aminoethanol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		0,085 mg/l
Freshwater		70 µg/L
Freshwater sediment		0,425 mg/kg
Freshwater sediment		357 µg/kg
Intermittent release		0,025 mg/l
Intermittent release (freshwater)		28 µg/L
Marine water		0,0085 mg/l
Marine water		7 µg/L
Marine water sediment		0,0425 mg/kg
Marine water sediment		35.7 µg/kg
Sewage treatment plant		100 mg/l
Sewage treatment plant		100 mg/L
Soil		0,035 mg/kg
Soil		1.29 mg/kg

dimethoxymethan

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		14.577 mg/L
Freshwater sediment		13.135 mg/kg
Marine water		1.477 mg/L
Sewage treatment plant		10 g/L
Soil		4.654 mg/kg

ethanol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		0,96 mg/l
Freshwater		960 µg/L
Freshwater sediment		3,6 mg/kg
Freshwater sediment		3.6 mg/kg
Intermittent release		2,75 mg/l
Intermittent release (freshwater)		2.75 mg/L
Marine water		0,79 mg/l
Marine water		790 µg/L

Marine water sediment		2,9 mg/kg
Marine water sediment		2.9 mg/kg
Predators		380-720 mg/kg
Sewage treatment plant		580 mg/l
Sewage treatment plant		580 mg/L
Soil		0,63 mg/kg
Soil		630 µg/kg

Ethyl Methyl Ketone - (Butanon)

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		55.8 mg/L
Freshwater sediment		284.74 mg/kg
Intermittent release (freshwater)		55.8 mg/L
Marine water		55.8 mg/L
Marine water sediment		284.7 mg/kg
Predators		1 g/kg
Sewage treatment plant		709 mg/L
Soil		22.5 mg/kg

propan-2-ol;isopropyl alcohol;isopropanol

Route of exposure:	**Duration of Exposure:**	**PNEC:**
Freshwater		140,9 mg/l
Freshwater		140.9 mg/L
Freshwater sediment		552 mg/kg
Freshwater sediment		552 mg/kg
Intermittent release		140,9 mg/l
Intermittent release (freshwater)		140.9 mg/L
Marine water		140,9 mg/l
Marine water		140.9 mg/L
Marine water sediment		552mg/kg
Marine water sediment		552 mg/kg
Predators		160 mg/kg
Sewage treatment plant		251 mg/l
Sewage treatment plant		2.251 g/L
Soil		28 mg/kg
Soil		28 mg/kg

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally

In the event the work process is within scope of the Danish statutory order on work with code numbered products (Work Inspectorate Order no. 302/1993), then personal protection equipment shall be selected as set out herein. If applicable, please refer to the code number of this product in section 15.
Use only CE marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Normally, personal respiratory equitment is not necessary			

Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn	-	-	

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.7	> 480	EN374-2, EN374-3, EN388	

Eye protection

Type	Standards	
Safety glasses with side shields.	EN166	

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Aerosol

Colour
Colourless

Odour / Odour threshold
Characteristic

pH
Not applicable

Density (g/cm^3)
0.79

▼Kinematic viscosity
No relevant or available data due to the nature of the product.

▼Particle characteristics
No relevant or available data due to the nature of the product.

Phase changes

▼Melting point/Freezing point (°C)
No relevant or available data due to the nature of the product.

Softening point/range (°C)
Does not apply to aerosols.

Boiling point (°C)
-44.5

▼Vapour pressure
No relevant or available data due to the nature of the product.

▼Relative vapour density
No relevant or available data due to the nature of the product.

▼Decomposition temperature (°C)
No relevant or available data due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)
-97

Flammability (°C)
The material is ignitable.

Auto-ignition temperature (°C)
235

Lower and upper explosion limit (% v/v)
0.7 - 19.9

Solubility

Solubility in water
Insoluble

▼n-octanol/water coefficient (LogKow)
No relevant or available data due to the nature of the product.

▼Solubility in fat (g/L)
No relevant or available data due to the nature of the product.

9.2. Other information

Other physical and chemical parameters
No data available.

▼Oxidizing properties
No relevant or available data due to the nature of the product.

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
The product is stable under the conditions, noted in section 7 “Handling and storage”.

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
Avoid static electricity.
Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. ▼Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11: Toxicological information

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

Acute toxicity

Product/substance	dimethoxymethan
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	6423 mg/kg ·

Product/substance	dimethoxymethan
Species:	Mouse
Route of exposure:	Oral
Test:	LD50
Result:	6950 mg/kg ·

Product/substance	dimethoxymethan
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50

Result:	>500 mg/kg ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	5840 mg/kg ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	66,1mg/l 4 h ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	47,5mg/l 8 h ·

Product/substance	ethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	10470 mg/kg ·

Product/substance	ethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>17100 mg/kg ·

Product/substance	ethanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	124,7 mg/l ·

Product/substance	Ethyl Methyl Ketone - (Butanon)
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>5000 mg/kg ·

Product/substance	2-aminoethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	1089 mg/kg ·

Product/substance	2-aminoethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	1025 mg/kg ·

Product/substance	2-aminoethanol
Species:	Rat
Route of exposure:	Inhalation

Test:	LC50
Result:	>1,3 mg/l 6h; damp ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>5000 mg/kg ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	>5000 mg/kg 4 h ·

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/irritation
Causes serious eye irritation.

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

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

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

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

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

STOT-single exposure
Based on available data, the classification criteria are not met.

STOT-repeated exposure
Based on available data, the classification criteria are not met.

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

11.2. Information on other hazards

Long term effects
Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure. Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

▼Endocrine disrupting properties
This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

▼Other information
propan-2-ol;isopropyl alcohol;isopropanol has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	dimethoxymethan
Species:	Fish
Duration:	96 hours
Test:	LC50

Result:	>1000 mg/l ·

Product/substance	dimethoxymethan
Species:	Daphnia
Duration:	48 hours
Test:	LC50
Result:	>1200mg/l ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Algae
Duration:	8 days
Test:	NOEC
Result:	>1800 mg/l ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	8970-9280 mg/l ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Daphnia
Duration:	24 hours
Test:	EC50
Result:	9714 mg/l ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Crustacean
Duration:	18 hours
Test:	EC10
Result:	5175 mg/l ·

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Species:	Crustacean
Duration:	No data available.
Test:	EC50
Result:	>1000mg/l ·

Product/substance	ethanol
Species:	Fish
Duration:	48 hours
Test:	LC50
Result:	8150 mg/l ·

Product/substance	ethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	1100 mg/l ·

Product/substance	ethanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	9268-14221 mg/l ·

Product/substance	ethanol
Species:	Algae
Duration:	7 days
Test:	EC0
Result:	5000 mg/l ·

Product/substance	ethanol
Species:	Crustacean
Duration:	16 hours

Test:	EC0
Result:	6500 mg/l ·

Product/substance	2-aminoethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	170 mg/l ·

Product/substance	2-aminoethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	349 mg/l ·

Product/substance	2-aminoethanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	65 mg/l ·

Product/substance	2-aminoethanol
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	22 mg/l ·

Product/substance	2-aminoethanol
Species:	Crustacean
Duration:	16 hours
Test:	EC50
Result:	110 mg/l ·

Product/substance	2-aminoethanol
Species:	Crustacean
Duration:	3 hours
Test:	EC50
Result:	>1000mg/l ·

Product/substance	2-aminoethanol
Species:	Daphnia
Duration:	21 days
Test:	NOEC
Result:	0,85 mg/l ·

Product/substance	2-aminoethanol
Species:	Fish
Duration:	30 days
Test:	NOEC
Result:	1,2 mg/l ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	>1000 mg/l ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Algae
Duration:	No data available.
Test:	EC50
Result:	>1000 mg/l ·

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Species:	Daphnia

Duration:	24 hours
Test:	EC50
Result:	>1000 mg/l ·

12.2. ▼Persistence and degradability

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Result:	95%
Conclusion:	Readily biodegradable
Test:	OECD 301 E

Product/substance	ethanol
Conclusion:	Readily biodegradable

Product/substance	2-aminoethanol
Result:	90%
Conclusion:	Readily biodegradable
Test:	OECD 301 A

Product/substance	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Result:	80
Conclusion:	Readily biodegradable
Test:	OECD 301 D

12.3. ▼Bioaccumulative potential

Product/substance	propan-2-ol;isopropyl alcohol;isopropanol
Conclusion:	No potential for bioaccumulation

Product/substance	ethanol
Conclusion:	No potential for bioaccumulation

Product/substance	2-aminoethanol
LogKow:	1,0000
Conclusion:	No potential for bioaccumulation

12.4. Mobility in soil

No data available.

12.5. ▼Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

12.6. ▼Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. ▼Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)
To the extent the material has not been subject to regular tests of peroxide formation the waste shall be treated as explosive waste.
HP 3 - Flammable
HP 4 - Irritant (skin irritation and eye damage)
Dispose of contents/container to an approved waste disposal plant.
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

▼EWC code

16 05 04*	Gases in pressure containers (including halons) containing dangerous substances

▼Waste group

Gr. Z	Waste that cannot be placed in any other waste group

▼Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L Tunnel restriction code: (D) See below for additional information.
IMDG	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L EmS: F-D S-U See below for additional information.
IATA	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	See below for additional information.

* Packing group

** Environmental hazards

▼Additional information

This product is within scope of the regulations of transport of dangerous goods.
ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

P3a - FLAMMABLE AEROSOLS, Qualifying quantity (lower-tier): 150 tonnes (net) / (upper-tier): 500 tonnes (net)

Regulation on drug precursors

Ethyl Methyl Ketone - (Butanon) is included (Category 3)

▼REACH, Annex XVII

dimethoxymethan is subject to REACH restrictions (entry 40).
Propane is subject to REACH restrictions (entry 40).
1,3-dioxolane is subject to REACH restrictions (entry 40).
propan-2-ol;isopropyl alcohol;isopropanol is subject to REACH restrictions (entry 40).
ethanol is subject to REACH restrictions (entry 40).
Butane is subject to REACH restrictions (entry 40).
Ethyl Methyl Ketone - (Butanon) is subject to REACH restrictions (entry 40).

▼Regulation on work involving coded products

Code number (1993): 3-1.

▼Additional information

Not applicable.

▼Sources

The Danish Working Environment Authority's executive order no. 1049 of 30 May 2021 on young people's work.
Based on Council Directive 94/33 / EC of 22 June 1994 on the protection of young people at work.
Pregnant workers and workers who are breastfeeding (AT Guide A.1.8-6, amended 2020).
Executive Order no. 247 of 14 March 2014 on interior design, etc. of aerosols, as amended by EO No. 301 of 27 March 2014, EO no. 478 of 25 May 2016 and EO 1336 of 29 November 2017.
Executive Order no. 372 of 25 April 2016 on control of the risk of major accidents with dangerous substances.
Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.
Council Regulation (EC) No 273/2004 on drug precursors.
Arbejdstilsynets bekendtgørelse nr. 301 af 13. maj 1993 om fastsættelse af kodenumre med senere ændringer.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

▼Full text of H-phrases as mentioned in section 3

EUH066, Repeated exposure may cause skin dryness or cracking.
H220, Extremely flammable gas.
H225, Highly flammable liquid and vapour.
H302, Harmful if swallowed.
H304, May be fatal if swallowed and enters airways.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H335, May cause respiratory irritation.
H336, May cause drowsiness or dizziness.
H412, Harmful to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
LCS "C" = Consumer uses: Private households (= general public = consumers)
PROC 11 = Non industrial spraying
PC 24 = Lubricants, Greases and Release Products
ERC 8a = Wide dispersive indoor use of processing aids in open systems

▼Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
CSA = Chemical Safety Assessment
CSR = Chemical Safety Report
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial chemical Substances
ES = Exposure Scenario
EUH statement = CLP-specific Hazard statement
EuPCS = European Product Categorisation System
EWC = European Waste Catalogue
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
GWP = Global warming potential
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
OECD = Organisation for Economic Co-operation and Development
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SCL = A specific concentration limit
SVHC = Substances of Very High Concern
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP).
The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Lisbet Tetsche

▼Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.
The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.
It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.
Country-language: DK-en