

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

1.1. Product identifier

Product form : Mixture
Name : Type I Aircraft Deicing/Anti-icing Fluid

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Aircraft Deicing/Anti-icing Fluid - complies with AMS 1424/1

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Proviron Functional Chemicals N.V.
Oudenburgsesteenweg 100
B-8400 Oostende - Belgium
T + 32 59 56 21 00 - F + 32 59 56 21 33
functional@proviron.com - www.proviron.com

1.4. Emergency telephone number

Emergency number : + 32 59 56 21 00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

Not classified

2.2. Label elements

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

No labelling required

2.3. Other hazards

Other hazards not contributing to the classification : May cause eye irritation.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]
Propylene glycol	(CAS) 57-55-6 (EC/EINECS/ELINS) 200-338-0	80	Not classified
Water	(CAS) 7732-18-5 (EC/EINECS/ELINS) 231-791-2	19	Not classified
Proprietary ingredients		< 1	Not classified

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after skin contact : Immediately remove contaminated clothing or footwear. After contact with skin, wash immediately with plenty of water and soap. Wash contaminated clothing immediately.

First-aid measures after eye contact	: Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum).
First-aid measures after ingestion	: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Get medical advice/attention.

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

Symptoms/injuries after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	: May cause slight irritation.
Symptoms/injuries after eye contact	: Slightly irritating to eyes.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Atomized water. Foam. Carbon dioxide (CO ₂). Dry powder.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Explosion hazard	: Aqueous solution.
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5.3. Advice for firefighters

Firefighting instructions	: Extinguishing measurements should be adjusted to the surrounding area.
Protection during firefighting	: Wear fire/flame resistant/retardant clothing. In case of fire: Wear self-contained breathing apparatus.
Other information	: Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: See protective measures under point 7 and 8.
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6.1.2. For emergency responders

Protective equipment	: See protective measures under point 7 and 8.
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6.2. Environmental precautions

Do not empty into drains or the aquatic environment.

6.3. Methods and material for containment and cleaning up

For containment	: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed containers for disposal.
Methods for cleaning up	: After cleaning, flush away traces with water.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Avoid contact with skin, eye and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hygiene measures	: Wash hands before breaks and at the end of work. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in original container. Keep container tightly closed. Keep away from heat and direct sunlight.
Storage temperature	: -45-60 °C
Prohibitions on mixed storage	: Oxidizing agents, strong. (strong) acids.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection	: Single-use gloves. PVC (Polyvinyl chloride). (EN 374)
Eye protection	: Tightly sealed safety glasses
Skin and body protection	: Avoid repeated or prolonged skin contact. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes)
Respiratory protection	: In case of fine dispersion/spraying/misting: Filter respirator (full mask or mouth-piece) with filter: P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Orange.
Odour	: odourless.
Odour threshold	: No data available
pH	: 8,2-9,2
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: < -60 °C
Boiling point	: ≈ 125 °C
Flash point	: > 100 °C
Auto-ignition temperature	: > 400 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: ≈ 10 mm Hg
Relative vapour density at 20 °C	: No data available
Relative density	: 1,045 (20°C)
Solubility	: Water: completely miscible
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 25 cP (20°C)
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Avoid high temperatures.

10.5. Incompatible materials

Oxidizing agents. Strong acid.

10.6. Hazardous decomposition products

On burning: release of harmful/irritant gases/vapours e.g.: carbon monoxide - carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Cryotech Polar Plus LT (80)	
LD50 oral rat	> 22 g/kg

Propylene glycol (57-55-6)	
LD50 oral rat	22000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight

Skin corrosion/irritation : Not classified
pH: 8,2-9,2

Serious eye damage/irritation : Not classified
pH: 8,2-9,2

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : highly soluble.

Cryotech Polar Plus LT (80)	
LC50 fish 1	47525 mg/l (Pimephales promelas, 96h)
LC50 other aquatic organisms 1	15250 mg/l (Daphnia Magnia, 48h)

Propylene glycol (57-55-6)	
LC50 fish 1	40613 mg/l (Oncorhynchus mykiss, 96 h)
LC50 other aquatic organisms 1	18800 mg/l (Americamysis bahia, 96 h)

12.2. Persistence and degradability

Cryotech Polar Plus LT (80)	
Persistence and degradability	Readily biodegradable, according to appropriate OECD test.
Biochemical oxygen demand (BOD)	0,64 g O ₂ /g substance (20°C,)
Chemical oxygen demand (COD)	1,24 g O ₂ /g substance (20°C)

Propylene glycol (57-55-6)	
Persistence and degradability	Readily biodegradable, according to appropriate OECD test.

12.3. Bioaccumulative potential

Cryotech Polar Plus LT (80)	
Log Pow	No data available

Propylene glycol (57-55-6)	
Log Pow	- 1,07 (20.5 °C)
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4).

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Remove according to the regulations.
Sewage disposal recommendations	: Ensure all waste water is collected and treated via a waste water treatment plant.
Waste disposal recommendations	: Collect in closed containers for disposal.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

Carriage prohibited (ADN)	: No
Not subject to ADN	: No

- Rail transport

Carriage prohibited (RID) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Disclaimer:

The purpose of this safety data sheet is to provide information about the safety, health and environmental aspects of the product concerned. The information in this safety data sheet is based on current expertise. Provion provides this information in good faith and to the best of its ability.

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