

PRODUCT NAME DESCRIPTION

LNT P180

Aircraft de-icing fluid, Type I.

SUPPLIED BY

LNT Solutions
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Leeds
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ENGLAND

EMERGENCY NUMBERS

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2. COMPOSITION

- 2.1 Aqueous monopropylene glycol mixture.
- 2.2 Contains a minimum of 80% monopropylene glycol.

3. HAZARD IDENTIFICATION

- 3.1 Inhalation Considered to be non-hazardous.
- 3.2 Skin Unlikely to cause irritation.
- 3.3 Eyes May cause temporary irritation.
- 3.4 Ingestion Considered to be non-hazardous.
- 3.5 Occupational Exposure Limits An exposure limit has been set for Monopropylene Glycol (synonym Propane-1,2-diol). This applies in the UK only.
 - UK (EH 40) OES
 - Total (vapour & particulates) 150 ppm (470 mg/m³) (8hr TWA)
 - Particulates - ppm (10 mg/m³) (8hr TWA)
 - ACGIH TLV – TWA No limit assigned.
 - FRANCE VME No limit assigned.
 - GERMANY MAK No limit assigned.

4. FIRST AID MEASURES

- 4.1 Ingestion Give large quantities of water to drink. Consult medical personnel.
- 4.2 Skin contact Wash off in flowing water. Launder contaminated clothing before re-use.

4.3	Eye contact	Irrigate with water for 5 minutes. Obtain medical assistance if irritation persists.
4.4	Inhalation	Remove to fresh air if feeling unwell. Consult medical personnel if symptoms persist.

5. FIRE FIGHTING MEASURES

5.1	Flash point (closed cup)	None below boiling point.
5.2	Auto ignition temperature	446°C
5.3	Explosion limits	No data.
5.4	Specific fire-fighting procedures	None.
5.5	Unusual fire hazards	The product may become combustible after prolonged heating at the boiling point.
5.6	Extinguishing media	Water, foam, Carbon Dioxide, dry powder.
5.7	Hazardous decomposition products	Incomplete combustion may produce Carbon Monoxide and other harmful gases/vapours.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Contain spillage and absorb on suitable material e.g. sawdust, sand or earth. Transfer to a container for disposal. See section 13.
 - 6.2 Wash the spillage area with plenty of water.
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7. HANDLING AND STORAGE

- 7.1 Avoid contact with skin and eyes.
 - 7.2 Avoid breathing mists/vapours when spraying.
 - 7.3 Store in tightly sealed original containers, away from direct heat and strong oxidising agents.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Maintain sufficient ventilation to comply with 'Occupational Exposure Standard'.
 - 8.2 Wear eye protection if splashing is possible. An eye wash bottle should be available.
 - 8.3 Gloves and protective overalls recommended if prolonged contact is likely.
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9. PHYSICAL AND CHEMICAL PROPERTIES Typical Values

9.1	Appearance	Clear, orange fluid.
9.2	Odour	None.
9.3	pH (20°C)	8.0 – 9.0
9.4	Boiling point	117°C
9.5	Flammability data	See 5.1 – 5.3
9.6	Vapour pressure (20°C)	10 mm Hg
9.7	Specific gravity (20°C)	1.045
9.8	Vapour density (air = 1)	1.6 (estimated)
9.9	Freezing point	
	100%	below -70°C
	75% v/v	-58°C
	50% v/v	-21.5°C
9.10	Viscosity	
	20°C	25 mPas
	0°C	60 mPas
	-25°C	650 mPas
9.11	Specific heat	
	20°C	2.9 J/g/°C
	70°C	3.2 J/g/°C
9.12	Solubility in water	Completely miscible.

10. STABILITY AND REACTIVITY

- 10.1 Stable under normal storage conditions.
- 10.2 Incompatible materials – strong oxidising agents.
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11. TOXICOLOGICAL INFORMATION

- 11.1 Considered to have low oral toxicity. See also section 3.
- 11.2 LD₅₀ (rat – oral) > 10g/Kg (estimated)
- 11.3 LC₅₀ (Pimephales Promelas) 12,500 mg/L (96h)
- 11.4 LC₅₀ (Daphnia Magnia) 10,500 mg/L (48h)
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12. ECOLOGICAL INFORMATION

12.1	COD	1.34 Kg O ₂ /Kg fluid
12.2	BOD ₅	0.31 Kg O ₂ /Kg fluid
12.3	Water Danger Class (WGK)	1

13. DISPOSAL CONSIDERATION

13.1 Controlled incineration or landfill in accordance with local, state or national regulations.

14. TRANSPORT INFORMATION

14.1 Not restricted under any transport regulations.

15. REGULATORY INFORMATION

15.1 Not classified as hazardous under any regulations.

16. OTHER INFORMATION

16.1 All components are registered in accordance with EINECS AND TSCA.

**The information contained herein is based on our knowledge at the current time
No responsibility is accepted that the information is sufficient or correct in all cases.**

Date: 15th July 2011