

MATERIAL SAFETY DATA SHEET

This MSDS conforms to ANSI Z400.1 and is in compliance with 29CFR 1910

Date: October 3rd, 2013

Section 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: **Lift-Off P-88 Aircraft Deicer CONCENTRATE**
Aircraft Deicing Fluid, Type I
Complies with SAE AMS1424

Manufacturer's Name and Contact Information: AllClear Systems, LLC
655 Conshohocken Rd
Conshohocken, PA 19428
Telephone: 1-484-567-0680
Emergency Telephone: 1-800-535-5053

Section 2: HAZARD INFORMATION

HEALTH=1 FLAMMABILITY=0 REACTIVITY=0 PROTECTION=B

EYE CONTACT:

This substance may be slightly irritating to the eyes.

SKIN IRRITATION:

This substance is not expected to cause prolonged or significant skin irritation.

RESPIRATORY/INHALATION:

Not expected to present a significant inhalation hazard under anticipated conditions of normal use

INGESTION:

If swallowed, this substance is considered practically non-toxic.

Section 3: COMPOSITION

	CAS-NO	%	PEL-OSHA	TLV-ACGIH
Propylene Glycol	00057-55-6	88	Not Listed	Not Listed

Section 4: FIRST AID MEASURES

<u>EYES</u>	Immediately flood with water for at least 15 minutes. Remove contact lens if worn. If irritation occurs and persists, get medical attention.
<u>SKIN</u>	No first-aid measures required, but wash with soap and water to remove. No adverse effects are expected.
<u>INHALATION</u>	Not expected to present a significant inhalation hazard under anticipated conditions of normal use
<u>INGESTION</u>	Ingestion unlikely. However, if ingested, obtain medical attention. If large quantity is swallowed, administer water or milk to drink. Do not induce vomiting unless directed by trained medical personnel.

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Section 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 does not burn. However, in a fire situation, some components of this product may boil off, leaving a combustible residue. Use water spray or fog, foam, dry chemical, CO ₂ .
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

Section 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.
- 6.2 Wash the spillage area with plenty of water.

Section 7: HANDLING & STORAGE

- 7.1 Avoid contact with skin and eyes.
- 7.2 Avoid breathing mists/vapors when spraying.
- 7.3 Store in tightly sealed original containers, away from direct heat and strong oxidizing agents.

Section 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.

Section 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 Appearance	Clear, orange fluid.
9.2 Odor	None.
9.3 pH (20°C)	7.50 – 8.50
9.4 Boiling point	117°C
9.5 Flammability data	See 5.1 – 5.3
9.6 Vapor pressure (20°C)	<10 mm Hg
9.7 Specific gravity (20°C)	>1.039
9.8 Vapor density (air = 1)	1.6 (estimated)
9.9 Freezing point	100% below -70°C
	75% v/v below -55°C
	50% v/v -28°C
9.10 Viscosity	20°C 25 mPas
	0°C 60 mPas

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9.11 Specific heat	-25°C	650 mPas
	20°C	2.9 J/g/°C
9.12 Solubility in water	70°C	3.2 J/g/°C
	Completely miscible.	

Section 10: STABILITY & REACTIVITY

- 10.1 Stable under normal storage conditions.
- 10.2 Incompatible materials – strong oxidizing agents.

Section 11: TOXICOLOGICAL INFORMATION

11.1 48 Hour LC50 (daphnia magna)	10,125 mg/L
11.2 96 Hour LC50 (pimephales promelas)	18,750 mg/L

Section 12: ECOLOGICAL INFORMATION

12.1 COD	1.40 Kg O ₂ /Kg fluid concentrate
12.2 BOD ₅	0.73 Kg O ₂ /Kg fluid concentrate

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state or national regulations.

Section 14: TRANSPORT INFORMATION

No transport restrictions

Section 15: REGULATORY INFORMATION

Propylene Glycol is not listed as a hazardous chemical by OSHA or ACGIH
Propylene Glycol is not listed as a carcinogen by IARC, NTP, ACGIH or OSHA

Section 16: OTHER INFORMATION

All components are registered in accordance with TSCA.

The above information is accurate to the best of our knowledge, however, since data, safety standards and government regulations are subject to change and the conditions of handling and use or misuse are beyond our control, AllClear Systems LLC assumes no responsibility for any injury or loss resulting from the use of the product described herein.