

CRYOTECH POLAR GUARD® ADVANCE

Type IV Aircraft Deicing/Anti-icing Fluid

AMS 1428/1 Certified

Why POLAR GUARD ADVANCE?

Polar Guard Advance is a low viscosity, propylene glycol based Type IV aircraft deicing/anti-icing fluid with the Lowest Operational Use Temperature (LOUT) in the Industry. Polar Guard Advance has long Hold Over Times in all weather conditions and is supplied as a ready-to-use formulation.

BENEFITS

- Certified propylene glycol based Type IV aircraft deicing/anti-icing fluid
- Long Hold Over Times in all weather conditions
- Lowest Operational Use Temperature (LOUT) in the Industry
- Low viscosity provides for easier handling and application
- Dedicated technical support; experienced with product transitions

PERFORMANCE

- Superior sprayability; low foaming
- LOUT is -22.9°F (-30.5°C)
- Two year product warranty (original sealed container; stored within temperature storage limits)

APPLICATION

- Critical surfaces: 0.025 - 0.037 gal/ft² (1.0 - 1.5 mm)

ENVIRONMENT

- Triazole free
- Does not contain nonylphenol ethoxylate surfactants
- Aquatic Toxicity

Aquatic Species	Test Duration Hours	LC50 Concentrate Fluid mg/L	Test Method
Pimephales promelas	96	707 mg/L	EPA 40CFR797.1400
Daphnia magna	48	>1,000 mg/L	EPA 40CFR797.1300

- Readily biodegradable
- Classified as non-hazardous



CRYOTECH POLAR GUARD® ADVANCE PRODUCT SPECIFICATIONS

COMPOSITION	APPEARANCE	DENSITY	TEMPERATURE STORAGE LIMITS						
Contains minimum 50% propylene glycol	Semi-transparent, green color	At 68°F (20°C) = 8.66 lbs/US gallon	Minimum -20°F (-30°C) Maximum 122°F (50°C)						
REFRACTIVE INDEX	FREEZING POINT	FLASH POINT	STORAGE STABILITY						
At 68°F (20°C) = 1.390 - 1.393	100/0 = Below -35.7°F (-37.6°C) 50/50 = 13°F (-10.6°C)	Not lower than 212°F (100°C)	2 years in the original sealed container when stored within temperature storage limits						
BRIX	TYPICAL pH	SPECIFIC GRAVITY	PACKAGING						
At 68°F (20°C) = 34.6 - 36.6	At 68°F (20°C) = 6.9 ± 0.5	At 68°F (20°C) = 1.040 ± 0.015	55 gallon drums (208 liters) - 4 drum minimum 265 gallon tote (1003 liters) - 1 tote minimum Bulk - 5000 gallons minimum						
VISCOSITY*		HANDLING							
Minimum on-wing 4,050 cPs In Service Limits 4,050 - 16,200 cPs Production Specifications 8,000 - 16,200 cPs <i>*Brookfield LVT, Spindle No. 1 @ 0.3 rpm @ 68°F (20°C)</i>		<ul style="list-style-type: none"> Avoid contact with skin and eyes Avoid breathing mists/vapors when spraying Keep in tightly sealed containers, away from direct heat, sunlight, and strong oxidizing agents Do not store in extreme temperatures; below -20°F (-30°C) or above 122°F (50°C) Contact Cryotech for advice on bulk and/or heated storage 							
Snow, Snow Grains, or Snow Pellets Light 27°F (-3°C) and Above 100/0									
<table border="1" style="margin-top: 10px;"> <caption>Holdover Times Comparison</caption> <thead> <tr> <th>Product</th> <th>Holdover Time (Minutes)</th> </tr> </thead> <tbody> <tr> <td>Generic</td> <td>~135</td> </tr> <tr> <td>Polar Guard Advance</td> <td>~175</td> </tr> </tbody> </table>				Product	Holdover Time (Minutes)	Generic	~135	Polar Guard Advance	~175
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Generic	~135								
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TO ORDER OR FOR PRODUCT INFORMATION CONTACT:

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