

DEICING FLUID (TYPE I) (AIRCRAFT - SAE AMS 1424)

Description: liquid solution of diethylene glycol (%65) as well as anti-corrosion agent additive s and moistening substances.

Application: used as for removing ice from the aircraft surfaces as well as for the short-time protection from ice-formation on the aircraft surface.

MAIN QUALITY SPECIFICATIONS

ENVIRONMENTAL INFORMATION

Biochemical Oxygen Demand (BOD)	5 day at 5°C: < 0.01 kg O ₂ /kg 5 day at 20°C: 0.003 kg O ₂ /kg 28 day at 5°C: < 0.01 kg O ₂ /kg 28 day at 20°C: 0.004 kg O ₂ /kg
Chemical Oxygen Demand (COD)	0.90 kg O ₂ /kg
Biodegradability	5 day at 5°C: < 0.01 5 day at 20°C: 0.003 28 day at 5°C: < 0.01 28 day at 20°C: 0.004
Aquatic Toxicity: daphnia acute toxicity test fish acute toxicity test	Daphnia magna, static system, 48 hour LC ₅₀ : 4,125 mg/l Pimephales promelas, static system, 96 hour LC ₅₀ : 2,575 mg/l

TRACE CONTAMINANTS

Sulfur	10 ppm (0.0010%)
Halogens	58 ppm (0.0058%)
Phosphorus	360 ppm (0.0360%)
Nitrate (as NO ₃)	< 2 ppm (< 0.0002%)
Kjeldahl nitrogen	30 ppm (0.0030%)
Lead (Pb)	< 1 ppm (< 0.0001%)
Chromium (Cr)	< 1 ppm (< 0.0001%)
Cadmium (Cd)	< 1 ppm (< 0.0001%)
Mercury (Hg)	< 1 ppm (< 0.0001%)

PROPERTIES

Flash Point	Not lower than 100°C (212°F)
Specific Gravity	1.101
Ph	9.2
Refractive Index	1.4105
Freezing Point	-36°C
Surface Tension	38.5 dynes/cm

FLUID STABILITY

Storage Stability	Conforms
Thermal Stability	Conforms
Hard Water Stability	Conforms

EFFECT ON AIRCRAFT MATERIALS

Sandwich Corrosion	Conforms
Total Immersion Corrosion	Conforms
Low Embattling Cadmium Plate	Conforms
Stress Corrosion Resistance	No surface reaction or cracking
Hydrogen Embitterment	No failures within 150 hours
Effect on Transparent Plastics	No crazing, stains, or discoloration
Effect on Painted Surfaces	No streaks, discoloration or blistering, no hardness change
Effect on Unpainted Surfaces	No streaks nor stains
Runway Concrete Scaling Resistance	Rating after 50 cycles: 1

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MAIN QUALITY SPECIFICATIONS	
FREEZING POINT	
Freezing point (ready to use)	-36°C
LOUT	-26°C
WSET	4 min 44 sec ± 34 sec
HHET	32 min 49 sec ± 2 min 12 sec
High speed aerodynamics	above -33,5°C (large transport jet aircraft) above -27,5°C (low take-off rotation speed commuter type aircraft)

Note:

1. Tests for Aerodynamic Applicability and Icing Resistance Time Control are performed by the certified laboratories
2. * - tests are carried-out within the laboratories outside of Russian Federation.

Packaging:

The product is packed in dry and clean steel drums (200-216.5 dm³) in accordance with GOSTs 1395 & 26319, plastic containers (1 m³) and railway-cars in accordance with TU 24.00.503-82 or Buyer's containers, checked and cleaned before the filling in required manner.

Tanks are to be sealed according to the GOST 18677 and filled max. on 95 of its max. capacity.

Marking:

Each container is to be labeled as follows:

- Manufacturer name;
- Fluid name;
- Lot number
- Net and gross weights;
- Production date
- TU applied
- Hazardous Class – 9 (Subclass – 9.1) – Low Hazardous Liquid