Aircraft Specialty Products

ACCU-COOL® 342

Product description:

HEAT TRANSFER FLUID BMS 3-42

FEATURES:

- A heat transfer fluid which meets the BMS 3-42 criteria
- Designed for use on the **Boeing 787** aircraft in the **Integrated Cooling System (ICS)**, **Power Electronic Cooling System (PECS)**, and the **Forward Cargo Air Conditioning System (FCAC)**

KEY BENEFITS:

- Available in packaging that is approved for use with specialized **Ground Support Equipment (GSE)**
- **Accu-Cool® 342** is compatible with most plastics and elastomers. Generally elastomers and other materials that are compatible with uninhibited glycols will work with **Accu-Cool® 342**. The same types of pump packing or mechanical seals used for water may be used with **Accu-Cool® 342**

SPECS:

- Boeing BMS 3-42 (QPL)

Note: Since there is a possibility of incidental food contact with **Accu-Cool® 342**, the product is registered with the NSF as an HT1 Heat Transfer Fluid.

Rev: 28358F
4-15-2024

For more information contact us :
zipchem@addevmaterials.com

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APPLICATIONS:

- ✓ Provides heat transfer for the **Boeing 787** aircraft
- ✓ Applied on **Boeing 787** aircraft using specifically designed **ground support equipment (GSE)** for filling the reservoirs that hold the heat transfer fluid
- ✓ **Accu-Cool® 342** can be applied to common elastomers and polymers, such as PP, PTFE, EPDM, and EPDM even if 90°C (194°F) is the temperature of the fluid
- ✓ Before using **Accu-Cool® 342**, reach out to the component material supplier to ensure that parts, such as tanks, seals for mechanical pumps, gaskets, packings for valves, tanks, tubing, O-rings, other pumps, and piping with elastomeric and materials made out of plastic are compatible with the components of our Heat Transfer Fluids
- ✓ In regards to maximum exposure temperatures that are allowed, certain elastomers will have compatibility variation of a large amount

PHYSICAL PROPERTIES:

- **Boiling Point:** 226°F to 239°F (108° to 115°C)
- **Color:** Orange
- **Density @ 77F (25C):** 1.0445 to 1.0485 g/cm^3
- **Flash Point:** No Flash Point
- **Freeze Point:** -46°F to -60°F (-43°C to -51°C)
- **pH:** 8.0 to 10.5
- **Refractive Index:** 1.3966 to 1.4008
- **Reserve Alkalinity:** 5.1 Minimum

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PHYSICAL PROPERTIES (CONT FROM PAGE 2):

- **Shelf Life:** Unlimited
- **Specific Heat:** 3.4 kJ/kg*K @ 40°C (104°F)
- **Thermal Conductivity:** 0.31 W/m*K @ 40°C (104°F)
- **Vapor Pressure:** 80 kPa @ 100°C (212°F)
- **Viscosity:** 5.64 to 6.49 cps @ 85°F (29°C)

HEAT TRANSFER FLUID COMPATIBILITY WITH VARIOUS MATERIALS:

Material Name	Compatibility With Heat Transfer Fluids
Acrylonitrile butadiene rubber (NBR)	**Caution:** Most compositions of this polymer are not recommended above 40°C
Aluminum and alloys	Not recommended above 60°C or if copper or copper alloys are also present
Brass with <15% Zinc	Acceptable up to at least 90°C
Brass, Chrome Plated	Acceptable up to at least 90°C
Brass, Nickel Plated	Acceptable up to at least 90°C
Carbon Steel	Acceptable up to at least 90°C
Copper	Acceptable up to at least 90°C
Copper Alloys <15% Zinc and Lead Free	Acceptable up to at least 90°C
Polyoxymethylene (POM)	Not recommended above 30°C
Ethylene Propylene Diene Monomer (EPDM)	Acceptable up to at least 75°C
Fluoroelastomer (FKM)	**Caution:** Some compositions of this polymer are not recommended above 40°C
Fluorinated Ethylene Propylene (FEP)	Acceptable up to at least 90°C
Polyamide (PA)	**Caution:** Most compositions of this polymer are not recommended above 40°C
Polychloroprene (CR)	**Caution:** Most compositions of this polymer are not recommended above 40°C
Polyethylene (PE)	Acceptable up to at least 75°C
Polyphenylene Sulfide (PPS)	Acceptable up to at least 60°C
Polytetrafluoroethylene (PTFE)	Acceptable up to at least 90°C
Polypropylene (PP)	Acceptable up to at least 75°C
Polysulfone or Polyphenylsulfone (PSU, PPSU)	Acceptable up to at least 75°C
Silicone	**Caution:** Some compositions of this polymer are not recommended above 40°C
Stainless Steel, Solution Treated and Passivated	Acceptable up to at least 90°C

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AVAILABLE PACK SIZES:

- 1 Gallon (3.8 Liter) Bottles (Case of 4)- 011098
- 5 Gallon (18.9 Liter) Pails-011097
- 55 Gallon (208 Liter) Drums-011370
- 330 Gallon (1249 Liter) Totes-011371
- Other Packaging Upon Request