

NuTherm® HT 120

Technical Data Sheet

NuTherm® HT 120

High Performance Heat Transfer Fluid

Description:

NuTherm® HT 120 is a non-flammable, low-viscosity, thermally stable hydrofluoroether (HFE) heat transfer fluid designed for advanced thermal-management systems requiring safe, efficient, and environmentally responsible cooling.

With a relatively low boiling point (~76°C), excellent dielectric properties, and low toxicity, NuTherm® HT 120 is ideally suited for single-phase and two-phase heat transfer, including immersion cooling, vapor-phase cooling, and recirculating thermal control systems.

Key Features and Benefits:

- Non-flammable for enhanced operational safety
- Excellent heat-transfer efficiency in single- and two-phase systems
- Very low viscosity for easy pumping and rapid thermal response
- Low global warming potential and zero ODP
- High dielectric strength allows direct use around electronics and energized components
- Fast evaporation & rapid drying for vapor-phase and phase-change cooling
- Chemically stable HFE formulation with long fluid life
- Low surface tension for superior wetting and heat-exchange efficiency
- Compatible with metals, plastics, elastomers, and ceramics



Applications: Thermal Management

NuTherm® HT 120 is optimized for:

Two-Phase Heat Transfer Systems

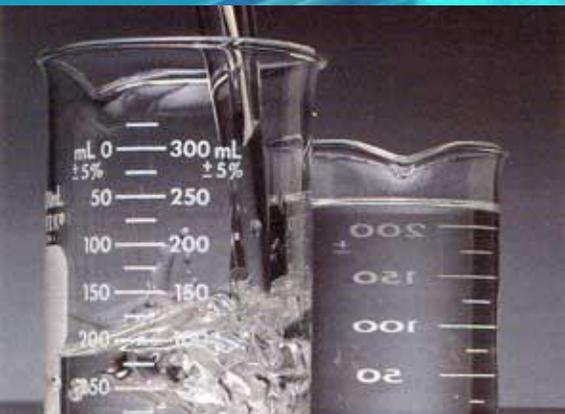
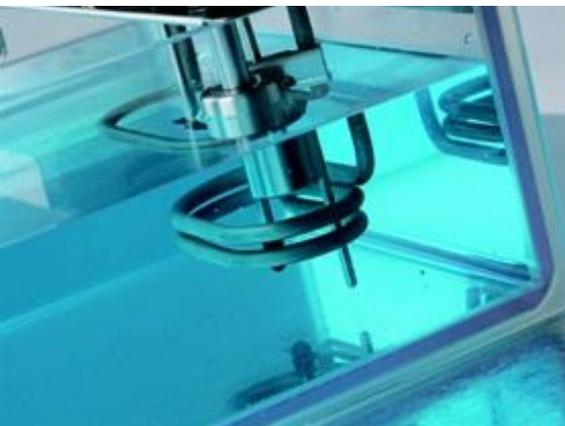
- Immersion cooling of electronics and semiconductors
- GPU/CPU/digital systems cooling
- Vapor-phase cooling systems
- Low-boiling evaporative heat-transfer loops

Single-Phase Heat Transfer

- Recirculating chillers
- Cold plates and heat exchangers
- Battery thermal-management systems
- Precision cooling for sensors, lasers, optics

Specialized Cooling Uses

- Environmental & thermal cycling chambers
- Condensing heat-transfer systems
- Cooling for power electronics and avionics



NuTherm[®] HT 120

Molecular Weight	264 g/mol
Boiling Point @ 25°C	76°C (168.8°F)
Pour Point @ 25°C	-138°C (-216.4°F)
Critical Temperature	210°C (410°F)
Critical Pressure	2.01 Mpa
Vapor Pressure	16 kPa
Heat of Vaporization	119 kJ/kg
Liquid Density @ 25°C	1420 kg/m ³
Kinematic Viscosity @ 25°C	0.41 cSt
Surface Tension @ 25°C	13.6 mN/m
Absolute Viscosity	0.58 cP
Specific Heat Capacity	1220 J/kg-K
Ozone Depletion Potential	0
Global Warming Potential	57

Availability: 5-gallon pails, 55-gallon drums, 275-gallon tote-bins, and bulk tankers.

Shipment: Non-Hazardous for transport via DOT, IMDG, and IATA.

Storage: Store in tightly sealed containers. Protect from moisture and strong bases. Use in well-ventilated areas. Avoid open flames (although the fluid is non-flammable).

Disposal: Dispose of in accordance with local, state, and federal regulations.

Compatibility: Stainless steel, Aluminum, Copper, brass, most plastics and elastomers, ceramics, glass, composites

**1155 Park Avenue
Emeryville, CA 94608**

(888) 99-NuGen
(888) 996-8436
Fax (707) 891-3012

www.NuGenTec.com
Oilfield@NuGenTec.com

EMERGENCY OVERVIEW:

This product may cause serious irritation to the eyes.

SAFETY:

Please make sure you have read and understand the product label and SDS before using this product. Use proper chemical hygiene when handling product. Wash thoroughly after handling. Observe label precautions. This product is classified and labeled according to the Globally Harmonized System (GHS).