



**Efficient Cooling. Safe Operation. Sustainable Performance.**

### PRODUCT OVERVIEW

AURON HT-165 is a fluorinated heat transfer fluid engineered for high-performance cooling and precision temperature control.

It is a clear, colourless liquid with higher boiling point and density compared to YM-135, making it particularly suitable for applications requiring extended temperature stability and reduced evaporation losses.

### KEY FEATURES

- ▶ Non-flammable — no flash point
- ▶ Low-viscosity — efficient heat transfer
- ▶ Very low vapour pressure — minimal evaporation losses
- ▶ High chemical and thermal stability

### APPLICATIONS

- ▶ Immersion cooling (data centers)
- ▶ Semiconductor temperature control
- ▶ Power electronics cooling
- ▶ Medical cooling systems
- ▶ Industrial heat transfer applications

### TECHNICAL SPECIFICATIONS

<b>Appearance</b>	Clear, colourless
<b>Chemical Type</b>	Fluorinated fluid
<b>Flash Point</b>	None
<b>Boiling Point</b>	165°C
<b>Pour Point</b>	-96°C
<b>Density (25°C)</b>	1.71 g/mol
<b>Kinematic Viscosity (0°C)</b>	3.0 cSt
<b>Kinematic Viscosity (25°C)</b>	1.6 cSt
<b>Kinematic Viscosity (40°C)</b>	1.22 cSt
<b>Kinematic Viscosity (100°C)</b>	0.51 cSt
<b>Dynamic Viscosity</b>	2.74 mPa·s
<b>Surface Tension</b>	16 mN/m
<b>Specific Heat Capacity</b>	1.12 kJ/(kg·K)
<b>Thermal Conductivity</b>	0.065 W/(m·K)
<b>Heat of Vaporization</b>	105 kJ/kg
<b>Expansion Coefficient</b>	0.0013 K <sup>-1</sup>
<b>Vapour Pressure (25°C)</b>	0.2 kPa
<b>Water Solubility</b>	< 10 ppm

### ENVIRONMENT & SAFETY

- ▶ Non-flammable
- ▶ No GHS classification
- ▶ ODP: 0
- ▶ GWP: 42
- ▶ Low acute toxicity (LD50 > 5000 mg/kg oral)
- ▶ Thermal decomposition may generate: HF, CO, CO<sub>2</sub>



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### ELECTRICAL INSULATION

- ▶ Dielectric strength: ~ 30 kV (2.54 mm gap)
- ▶ Dielectric constant: ~4.2
- ▶ High resistivity ( $\sim 10^{12} \Omega \cdot \text{cm}$ )

### THERMAL PERFORMANCE

- ▶ Moderate viscosity → stable heat transfer performance
- ▶ Very low vapor pressure → minimal losses at elevated temperatures
- ▶ Higher boiling point → suitable for extended temperature range

Recommended operating range (typical)

- ▶ Approx.  $-80^{\circ}\text{C}$  to  $+155^{\circ}\text{C}$  (derived technically)

### MATERIAL COMPATIBILITY

Compatible with a wide range of materials.

Testing recommended.

- ▶ Metals: aluminium, copper, stainless steel
- ▶ Plastics: PE, PP, PTFE
- ▶ Elastomers: NBR

### SAFETY

- ▶ Use only in well-ventilated areas
- ▶ Avoid inhalation of decomposition products
- ▶ Use appropriate PPE for industrial handling
- ▶ Read Safety Data Sheet (SDS) before use

### PACKAGING & STORAGE

- ▶ Available packaging: 1kg, 7kg, 15kg
- ▶ Store in closed original containers
- ▶ Keep in cool, dry, well-ventilated environment
- ▶ Avoid contact with strong oxidizers, acids, and bases

### ECONOMIC ADVANTAGES & SUSTAINABILITY

- ▶ Reduced fluid consumption due to low vapor pressure
- ▶ Stable long-term performance
- ▶ Lower maintenance requirements
- ▶ Improved efficiency in high-temperature systems

*Disclaimer: Information based on current knowledge. User is responsible for verifying product suitability. No warranty for specific results. Specifications subject to change without notice.*