



PRECISION-V 3283 Coolant

Product# 3283

Product Description

Techspray® has formulated Precision-V 3283 to be a direct, drop-in replacement for 3M Fluorinert™ FC-3283.

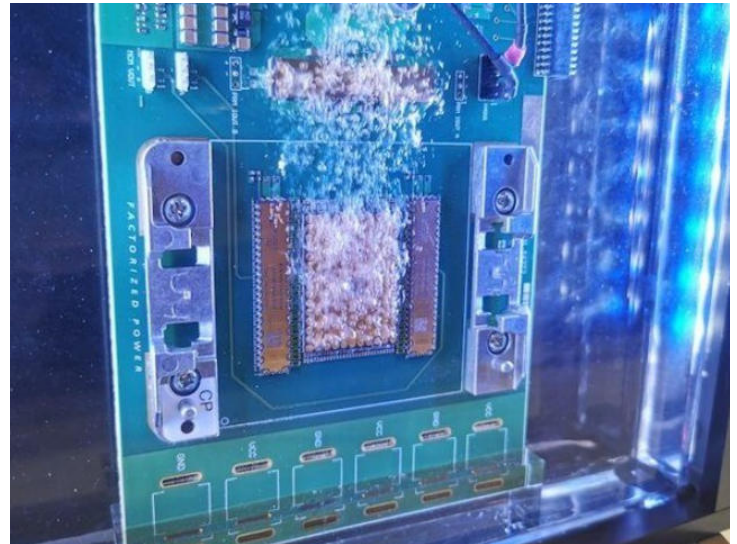
Precision-V Electronics Liquid are nonflammable with no flash-point. Precision-V is non-ozone depleting, so ideal replacements for many single-phase heat transfer applications in the semiconductor manufacturing industry. Its liquid range (-82°C to 124°C) makes it ideal for a variety of applications such as etchers, ion implanters, testers and others. Other uses include heat transfer for data centers, high performance computing, power electronics and aviation electronics. Precision-V 3283 liquid is also used for electronics testing and as an inert reaction media. Because Precision-V 3283 is primarily a single compound, its composition will not shift or fractionate with time. This keeps fluid loss to a minimum enabling transport properties to remain unchanged.

Precision-V 3283 is energy-saving, environmentally friendly and highly efficient.

NOTE: With the passage of time and technological progress, the power density of computer chips has become higher and higher, the calculation work to be processed has become more and more complex, and the heat load has been increasing. The high energy consumption not only brings high economic expenditures to all units, but also causes a great waste of social resources. As a brand-new "black technology", liquid cooling technology is gradually replacing air cooling and becoming a new type of data center cooling solution.

Features / Benefits

- Drop-in replacement for 3M Fluorinert™ FC-3283.
- Nonflammable
- Non-conductive
- Low toxicity
- Low viscosity
- High latent heat of vaporization
- Low global warming potential (GWP)
- Zero ozone depletion potential (ODP)
- VOC-exempt solvent (US EPA)
- Low surface tension for cleaning within tight areas
- Environmentally friendly
- Good insulation performance
- Excellent material compatibility



Typical Product Data and Physical Properties

CAS No.	86508-42-1
Physical State	Liquid
Odor	Odorless
Appearance	Colorless liquid
Flash Point	none
Initial Boiling Point	124°C
Pour Point	-79 °C
Latent heat of vaporization	83 kJ·Kg ⁻¹
Kinematic Viscosity (25°C)	1.38 mm ² · s ⁻¹
Density (25°C)	1.86 g·ml ⁻¹
Surface Tension	15.7 × 10 ⁻³ N·m ⁻¹
Vapor Pressure (20°C)	1.52 KPa
Volume Resistivity (25°C)	1*10 ¹⁴ Ω · cm
Thermal Conductivity (25°C)	0.064 W·m ⁻¹ ·K ⁻¹
Dielectric Strength(0.1" gap)	>39 kV
Dielectric Constant (1 kHz)	2.1
Dielectric Loss (1 MHz)	0.00029
Specific Heat (25°C)	1.11 J·kg ⁻¹ ·K ⁻¹
Content of Water (ppmw)	≤ 7
GWP	< 121
VOC	exempt (EPA)
Shelf life	2 years

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Applications

- As a solvent to dissolve various perfluoropolyether compounds;
- Leakage on the side of electronic components, air tightness test of electronic components (IC, LSI components) or electronic devices;
- Live cleaning equipment, insulating liquid;
- Electronic precision cleaning, optical cleaning, dehydration cleaning;
- Heat transfer fluid, cooling medium;
- Hydraulic transmission fluid, electronic equipment sealing isolation fluid;
- Solvent diluent, lubricant diluent, special purpose solvent, etc.

Material Compatibility

Precision-V 3283 are generally compatible within normal operating conditions of heat-transfer liquid and with exposed materials normally found with the equipment. Specific plastic and elastomeric formulations vary with manufacturers; therefore, we recommend compatibility verification when required.



Packaging and Availability

Precision-V Electronisc Liquid available in the following sizes:

3283-550LB 250 Kg (550 LB)

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Resources

Techspray® products are supported by global sales, technical and customer services resources.

For additional technical information on this product or other Techspray® products in the United States, call the technical sales department at 800-858-4043, email tsales@techspray.com or visit our web site at: www.techspray.com.

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