

COVEN FP40770

Fluorinert Electronic Liquid

COVEN FP40770 is a stable liquid with perfluorinated properties, commonly employed in industrial settings as a conductive fluid. Its chemical stability allows for versatile applications, serving as both a single-phase or two-phase coolant in military supercomputer systems and delicate electronic devices. With exceptional insulation capabilities, it is ideal for cooling high-voltage transformers and powerful electronic components. Within the semiconductor sector, COVEN FP40770 finds extensive use in etching equipment, ion implantation tools, and constant temperature cooling solutions during chemical vapor deposition (CVD) processes. Additionally, its low pour point makes it suitable for thermal shock tests and various experimental assessments.

FEATURES

- Thermal stability
- Chemical stability
- Wide liquid range
- Non-conductive
- Narrow boiling range
- Compatibility

Properties	Range
Dynamic viscosity	1.35 cP
Kinematic viscosity	0.79 cSt
Average molecular weight	366 g/mol
Pour point	-94°C

TYPICAL PROPERTIES

Properties	Range
Boiling point	95°C
Appearance	Transparent liquid
Color	Colorless
Dielectric constant (@1 kHz)	3.21
Dielectric strength (0.25mmgap)	40kV
Surface Tension (mN/m)	13.63
Density	1.76 g/ mL@ 25°C)
Saturated water content	50ppm
pH	7
Flash point	No
Fuel range	No
Ozone depletion potential (ODP)	0
Global Warming Potential (GWP)	1 (CO ₂ = 1; 100yrs)
Specific heat @25°C	1509 J/g°C
Thermal conductivity @25°C	0.0927 W m ⁻¹ °C ⁻¹

TOXICITY GENERALIZATION

COVEN FP40770 is non-irritating to the skin, causes minimal eye irritation upon contact, and is almost non-toxic when taken orally. Material safety data sheets are available upon request.

SAFETY AND OPERATION

Before using this product, please read the current product Material safety data sheet (available through a sales or technical service representative) and the precautionary instructions on the product packaging. Follow all applicable precautions and instructions. The electronic fluorination solution COVEN FP40770 is non-flammable and the recommended treatment procedures are given in the MSDS.

ENVIRONMENTAL ATTRIBUTE

Electron fluorinated liquid COVEN FP40770 has zero ozone-depleting potential. COVEN FP40770 electronic fluorinated solution is a perfluorocarbon (PFC) with a high global warming potential and a long atmospheric lifetime. Therefore, careful management should be done to minimize emissions. We advises users of COVEN FP40770 e-fluorinated liquids to further limit emissions by taking good protective measures and implementing recovery, recycling or appropriate disposal procedures. We offers a used liquid return procedure

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.

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SAFETY AND PRECAUTIONS

- Normal protection and industrial hygiene regulations for chemical handling must be observed and thermal decomposition products must not be inhaled. Avoid skin contact with high-temperature materials.
- Do not eat, drink or smoke while using this product. Clean thoroughly after operation. Avoid release into the environment. Avoid contact with oxidizing agents (e.g. chlorine, chromic acid, etc.).
- When using this product, you should follow the information and recommendations provided in our chemical safety technical manual. Basic precautions for handling chemicals should also be in place.

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