

## COVEN FP401230

### Fire Protection Fluid

Coven FP401230 belongs to the ketone fluoride group of compounds, is a clear, colorless, tasteless liquid. Typical applications include computer rooms, data centers, aviation, ships, vehicles, libraries, oil and gas production, etc. Its high safety, low environmental impact, and superior fire extinguishing performance make it an alternative to chemical halon fire extinguishing agents that provide a long-term viable, environmentally sustainable technology for special hazard fire prevention.

### FEATURES

- Features: colorless, odorless, good solubility, insoluble in water, good thermal stability, ODP value is zero, no damage to the ozone layer, low greenhouse effect value, low surface tension, small viscosity, small latent heat of evaporation, excellent material compatibility and fire performance, high safety.
- Advantages: Excellent environmental protection performance: the most stringent international environmental regulations; High fire-extinguishing efficiency: minimum extinguishing concentration: 3.5% for Type A fire, 4.5% for Type B fire, safe to use the extinguishing concentration is much lower than (NOVAL); Good electrical insulation: dielectric strength up to (3mm) 74.6 kV and has passed the electrical insulation performance test of 110 kV; Good cooling performance: unique cooling effect after discharge; No residue after use: volatilizes quickly after use, which will not cause damage to precision instruments, antique calligraphy and painting.

Kinematic viscosity (25 °C)	0.4014 mm <sup>2</sup> ·s <sup>-1</sup>	Dielectric Strength (3 mm)	74.6 kV
Specific Heat (25 °C)	1.013 J·g <sup>-1</sup> ·K <sup>-1</sup>	Solubility of water (25 °C)	<0.001wt %
Gas density (25 °C)	0.0136 g·mL <sup>-1</sup>	Atmospheric lifetime (day)	5
ODP	0	GWP	<1.0

### TYPICAL PROPERTIES

Appearance	Colorless, Transparent	Odor	Odorless
Molecular mass	316.0	Liquid Density (25°C)	1.601 g·mL <sup>-1</sup>
Boiling Point (1 atm)	49.2°C	Freezing Point	-108 °C
Flash Point	No	Ignition Point	No
Critical temperature	168.7°C	Critical pressure	1865 kPa
Critical density	0.6391 g·mL <sup>-1</sup>	Insulating property (110 kV)	3.8 mA
Vapor Pressure (25 °C)	44.4 kPa	Latent Heat of Vaporization	84.55 kJ·kg <sup>-1</sup>

### MAIN APPLICATION

- Widely used all over the regional or local regional fire extinguishing system and portable fire extinguisher, especially applicable to electronic control center, computer room, transformer room, power distribution cabinets, wind power equipment room, energy storage power station, high precision instrument, museum, data processing center, ship control rooms, new energy vehicle lithium battery protection and other occasions of fire protection.
- It can be used as coolant for electronic equipment and protection gas for light metal smelting. It can also be used to replace sulfur hexafluoride for transformer protection.

### STORAGE AND TRANSPORTATION

- Coven FP401230 should be stored in a clean and dry warehouse, protected from high temperature insolation, away from heat sources, acids, strong alkalis, oxidants, etc.;
- Coven FP401230 is colorless, transparent liquid. It is transported as a non-dangerous product, violent vibration should be avoided during transportation, and it should not be stacked upside down;
- Coven FP401230 is volatile, pay attention to the tightness of the product during storage and transportation.

## COVEN FP401230

### Fire Protection Fluid

#### SAFETY AND PRECAUTIONS

- Local regulations concerning normal protection and industrial hygiene for chemical handling must be observed, no inhalation of thermal decomposition products, and skin contact with hot substances;
- Do not eat, drink or smoke when using this product. Wash thoroughly after operation. Avoid release into the environment. Avoid contact with oxidizing (such as chlorine, chromic acid, etc.);
- When using this product, you should follow the information and recommendations provided in our "Chemical Safety Data Sheet". There should also be basic precautions required for handling chemicals;

Your use of our product, technical assistance, information (whether oral, written or production evaluation) and the purposes of your use, including any suggested formulations and recommended content, are beyond our control. Therefore, it is necessary for you to test our product, technical assistance and information to determine whether it meet your usage needs. The specific application analysis must at least include tests to determine its applicability from the technical, health, safety and environmental perspectives. We are not required to carry out such tests. Unless we agree otherwise in writing, all products will be sold in strictly in accordance with the Standard Terms of Sale, which we can make available upon request. We do not guarantee or warrant any information and technical assistance provided and are subject to change without prior notice. Both parties need to expressly understand and agree that you will assume all liability, whether in tort, contract or in connection with the use of our products, technical assistance and information, and we shall have no such liability. Any statement or recommendation not contained herein is unauthorized and shall not be binding on us in any way. Nothing herein should be construed as a recommendation to use any product in contravention of any patent rights associated with any material and use. This information does not imply or in fact confer any license to any patent rights.

This product is a non-"medical grade" product and should not be used in the production of medical equipment or intermediate products of medical equipment, because the above products will directly contact the patient's body during normal use (e.g. skin, body fluids or body tissues, including non-direct contact blood). In addition, this product should not be used in the manufacture of medical supplies or intermediate products of medical supplies, or in the production of food-grade products or cosmetics, you must contact the company in advance to obtain permission to sell the above-mentioned products. However, the purchaser of the product must decide whether the product is suitable for the production of medical products or intermediate products of medical equipment, whether it is suitable for the production of "food contact" products or cosmetics, and must not rely on any representations made by the company.

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.