

# KEC FIRE

## Kectone 5112

### Clean Fire Extinguishing Agent



**Kectone 5112** offers a unique combination of safety, low environmental impact and extinguishing performance for special hazards fire protection, makes it a high-end brand for tier OEMs and creating value together.

- Large safe margin for occupied spaces
- Zero ozone depletion potential
- Very low global warming potential
- Clean and no residue
- Non-conductive and non-corrosive
- Minimum fire extinguishing concentration of class A 3.34% & class B 4.5%
- Low nozzle pressure

#### Advanced Fire Suppression

It is formulated with an advanced chemical composition that enables it to rapidly extinguish fires, including those fueled by flammable liquids, gases, and electrical equipment. Its innovative properties make it highly effective in combating a wide range of fire hazards, providing reliable protection in diverse environments.

#### Rapid Flame Knockdown

It is optimized for rapid flame knockdown, quickly smothering fires to prevent their escalation and spread. This feature enhances the agent's effectiveness in controlling fire incidents, minimizing potential damage and protecting lives and property.

#### Non-Conductive and Non-Corrosive

It is non-conductive and non-corrosive, making it safe for use on energized electrical equipment. This unique characteristic allows for the safe suppression of electrical fires without posing additional risks to operators or causing damage to sensitive equipment.

#### User-Friendly Application

It is designed for ease of application, allowing for efficient deployment in emergency situations. Its user-friendly nature simplifies the firefighting process, enabling quick and effective response to fire incidents.

#### Regulatory Compliance

It meets stringent industry standards and regulatory requirements, ensuring its reliability and safety in various applications. It undergoes rigorous testing to validate its performance and adherence to quality and safety standards.

## Specification

Kectone 5112 UL and FM approved has the same minimum extinguishing concentration of class A 3.34%, class B 4.5% and low nozzle pressure as 3M's NOVEC 1230, making it a REAL drop-in replacement.

| Specification                              | Kectone 5112     |
|--|------------------|
| Appearance                                 | Colorless liquid |
| Purity                                     | ≥99.9%           |
| Moisture                                   | ≤10ppm           |
| Acidity                                    | ≤3ppm            |
| Non-volatile Residue                       | ≤100ppm          |
| Suspended matter or sediment               | None visible     |
| Cis and trans kinetic dimer of HFP         | ≤1,000ppm        |
| Thermodynamic dimer of HFP & its HF adduct | ≤90ppm           |

## Physical Properties

| Properties   | Kectone 5112   |
|--|--|
| Chemical Formula   | $\text{CF}_3\text{CF}_2\text{C}(\text{O})\text{CF}(\text{CF}_3)_2$ |
| CAS Number   | 756-13-8   |
| Molecular Weight   | 316.04   |
| Boiling Point at 1 atm   | 49.2°C   |
| Freezing Point   | -108°C   |
| Critical Temperature   | 168.66°C   |
| Critical Pressure  | 1,865kPa   |
| Critical Volume  | 494.5cc/mole   |
| Critical Density   | 639.1kg/m <sup>3</sup>   |
| Vapor Pressure at 20°C   | 0.326bar   |
| Liquid Density at 20°C   | 1.616g/ml  |
| Saturated Vapor Density at 20°C                                      | 4.3305kg/m <sup>3</sup>  |
| Specific Volume of Superheated Vapor at 1 atm and 20°C               | 0.0719m <sup>3</sup> /kg   |
| Heat of Vaporization at boiling point                                | 88.0kJ/kg  |
| Specific Heat, Liquid at 25°C  | 1.103kJ/kg °C  |
| Specific Heat, Vapor at constant pressure (1 atm) and 25°C           | 0.891kJ/kg °C  |
| Thermal conductivity of liquid at 25°C                               | 0.059  |
| Liquid Viscosity at 20°C   | 0.524  |
| Relative Dielectric Strength at 1 atm (N <sub>2</sub> =1.0) and 25°C | 2.3  |

## Packaging

Kectone 5112 is currently available in

- 300 kg (661 lb) drums
- 1,300 kg (2,866 lb) IBC totes
- 20,000 kg (44,092 lb) ISO tanks

## Transportation

Kectone 5112 is classified to common cargo, it can be transported via roads, railways, sea and air freight. Please refer to Kectone 5112's SDS for more details.