FE-25™

"Requires less clean agent weight than other alternatives to protect the same hazard"

Dupont **FE-25™** is the preferred clean agent replacement for Halon 1301 in existing systems. It must be taken into account that according to the Regulation nº 2037/2000 of the European Parliament and of the Council of 29 June 2000, the fire suppression systems and extinguishing agents containing Halon, must be replaced before 31 December 2003. There is no need for long and costly downtime to retrofit existing systems. **FE-25™** physical properties are very similar to the properties of Halon 1301, so it allows to work with the same piping network, cylinders and nozzles would be the only equipment to replace.

FE-25™ is free of residue, colorless, odorless and electrically non-conductive. Its low boiling point (-48.5ºC), similar to Halon 1301 (-72ºC), makes it suitable for low temperature applications. It is environmentally safe and has zero ozone depletion potential.

Closely matches the physical characteristics of Halon 1301

Extinguishes fire by a physical mechanism. It transfers the physical-chemical heat, absorpting the heat from the flame and combustible.

The design concentration for Class A fires is 8.6%. A discharging time of 10 seconds guarantees a fast extinguishing and minimizes the damage caused by the fire.

Excellent combination of clean agent (**FE-25™**) with fast discharge valve without pressure drop. The complete system (equipment, agent and software) has been tested and approved by FMRC (Factory Mutual Research Corporation). The clean agent is pressurized with dry nitrogen at 24 bar and it is stored in steel cylinders manufactured under the European standard 84/525/CE and the Transportable Pressure Equipment Directive 1999/36/CE, for a working pressure of 40bar at 50ºC.

The U.S. Department of Defense uses this agent to protect the aircraft engines. Another current application is the explosion suppression, by stopping flame propagations in a fraction of second.

Dupont FE-25 physical properties

Chemical name	**Pentafluorometane**
Chemical formula	**CF_3CHF_2**
Name according to (ISO14250,UNE23570 and NFPA2001)	**HFC-125**
Molecular weight	**120**
Boiling point at 1.013 bar	**-48.3ºC**
Liquid density at 20ºC	**1218 kg/m³**
Critical temperature	**66.3ºC**
Critical pressure	**35.95 bar**
Vapor pressure at 20ºC	**12.09 bar**
Relative electrical resistance (a 1 atm. 25ºC (n2=1.0))	**0.995**
Maximum fill density	**0.9 kg/l**
Typical design concentration for heptane	**11.3%**
Flood factor for heptane at 20ºC	**0.646 kg/m³**
Design concentration (for Class A surface)	**8.6%**
Flood factor (for Class A surface)	**0.483 kg/m³**
NOAEL	**7.5%**
LOAEL	**10%**
Ozone Depletion Potential	**0**
Global Warming Potential	**2800**
Overpressurization with nitrogen	**24 bar**
Cylinder working pressure at 50ºC	**40 bar**
Recommended piping	**Schedule 40 (DIN2440)**

Frequently used for explosion suppression and the aerospace industry

System approved by Factory Mutual (FM)

For more information: SIEX

General characteristics

- ***Requires less clean agent weight than other alternatives to protect the same hazard***
- ***Requires less storage cylinders***
- ***Fast extinguishing***
- ***No residues left behind after application***
- ***Excellent discharge properties***
- ***Allows to use existing piping network***
- ***Approvals:***
  ISO14520, UNE23572, NFPA 2001 and EPA SNAP listed.

Applications

- ***Control rooms***
- ***Communication systems***
- ***Laboratories***
- ***Aviation industry***
- ***Explosion suppression***
- ***Computer rooms***
- ***Archives, libraries, etc.***

FM ★★ APPROVED

SIEX
Polígono Industrial de Villalonquéjar
C/ Merindad de Montija, s/n - 09001 BURGOS (SPAIN)
Telf.:+34 947 281 108 / Fax:+34 947 281 112
E-mail: siex@siex2001.com
www.siex2001.com