
TECHNICAL SHEET PORTABLE ESP FLAME INHIBITOR

PRODUCT DESCRIPTION AND SPECIFICATIONS

ESP FLAME INHIBITOR is a manual, portable aerosol inhibitor with remarkable extinguishing capability. It is non-toxic and environmentally safe. The device is a small, compact, lightweight cylinder: the upper part of the device is a metal tube containing the extinguishing charge. The lower part of the device is composed of plastic and serves as a support handle.

The use of a potassium powder jet - a unique method among fire extinguishers - involves the vaporization of the powder in the environment followed by the condensation of its extinguishing substance. The product works by interrupting a fire's chain of reaction (the "auto-catalyst" of the fire). The device is composed of stable, solid minerals; it does not contain gas and is not pressurized. The aerosol-like jet is only produced when the charger is stricken with its base. The produced aerosol jet is essentially an inert salt that emits gas already present in the atmosphere.



This process allows ESP FLAME INHIBITOR to extinguish all types of fires through saturation. Its slow biodegradation in the environment furthers the prevention of subsequent fires.

The extinguishing process involves two different reactions: one is physical and the other, chemical. **The physical reaction** relates to potassium's tendency to oxidize rapidly in air. When in contact with air, alkaline salts consume great quantities of oxygen, thus depriving fires of oxygen. **The chemical reaction** is created through the stable link between potassium particles and the fire's combustion particles.

Through the two reactions, a quick oxidation process takes place, immediately transforming the jet from a solid state into a gaseous state which frees the potassium particles. These atoms are able to intercept and interrupt any other free particles produced by the fire's chain reaction combustion process. Potassium has strong inhibitor qualities, due to its weak ionization energies.



FEATURES

ESP FLAME INHIBITOR potential impact on the environment and on users:

- ODP Ozone Depletion Potential = zero
- ATL Atmospheric Life Time = zero
- Activation time: Immediate
- Usability temperature: from -140° F to +320° F
- Granulometry: from 2 to 4 microns
- Steam: none
- Residue after use: negligible
- Does not produce any "organic accumulation"
- Environmentally safe
- The device is not pressurized
- The device is not considered hazardous material
- GWP Global Warming Potential = zero
- Electric conductivity: none
- Electrostatic discharge: none
- Usability humidity: up to 98% U.R.
- Corrosiveness: none
- Thermal shock: none
- Not dangerous to human health
- Non-toxic
- Lifetime guarantee
- The device does not need to be tested
- The device does not need maintenance

PORTABLE MODELS AND APPLICATIONS

MODEL	DIMENSIONS	JET EMISSION TIME
5B Household Model	approximately 10 inches long x 1.3 inches diameter Weight: approximately 0.5 pounds	Jet emission time: approx. 25 seconds active
8B Professional Model	approximately 10.2 inches long x 1.3 inches diameter; Weight: approximately 0.6 pounds	Jet emission time: approx. 50 seconds active
13B Nautical Model	approximately 12.9 inches long x 1.3 inches diameter; Weight: approximately 1.2 pounds	Jet emission time: approx. 100 seconds active

Due to its fast activation and response time, ESP FLAME INHIBITOR is suitable for use in indoor and outdoor applications such as:

- HOMES
- CARS
- TRUCKS
- OFFICES
- RVs
- SMALL BOATS
- TELECOMMUNICATION AND PROCESS CONTROL ROOMS
- CAMPSITES
- WORKSHOPS

ESP FLAME INHIBITOR is capable of extinguishing fires in different classes:

- Class A: Solid material, ordinary combustibles, such as wood, paper, fabric, plastics etc.
- Class 5B-8B-13B: Flammable liquids, such as gasoline, oil based paints, solvents, alcohol, acetone, etc.
- Class C: Gaseous category: GLP, methane, acetylene, etc.
- Class E: electrical equipment fires subject to voltages up to 1000v at a distance of 1m; Cable galleries, distribution cabinets, electronic devices

ESP SRL (MANUFACTURER) EXISTING CERTIFICATIONS

- ISO 9001:2008 (Standards for quality management systems)
- Declaration of CE Conformity
(Certifies that product has met EU consumer safety, health or environmental requirements.)

PRODUCT CERTIFICATION AND TEST REPORTS

For complete list go to <http://www.espflameinhibitor.com/certs.htm>

HANDLING / STORAGE PARAMETERS

Normal attention in handling, in case of a casual primer of the inhibitor wait for the complete aerosol discharge and carry on with the air change in the environment. Avoid the direct contact of the product with free flames.

Store at a temperature between -10°C and +50°C (-50 degree F and +122 degree F)
Packaging in cardboard boxes; do not pile the boxes higher than 2 meters

TRANSPORTATION CLASSIFICATION CODES

Transport by railway (RID/ADR)	ADR 4.1
Transport by sea (MDD rule)	4.1
Transport by plane (ICAO-IATA rule)	Class 5.1, Packing Group III
UN Identification Code number	UN 3178

NATO CLASSIFICATION CODES

13-digit NATO STOCK NUMBER NSN for the ESP FLAME INHIBITOR:

Model 5B-8B
NSN 4210151935049

Model 13B
NSN 4210151935050

NIN - National Item Identification Number A23900
Manufacturer NCAGE number AJ344

DISCLAIMER

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