

# KV-LITE TEC



## TERNARY EUTECTIC CHLORIDE BASE - POWDER FOR METAL FIRES

Metal fires pose special problems to the fire fighting operations as water or foam cannot be used as fire extinguishing agent because some metals react violently with water even at room temperature. Ordinary dry chemical powders are not suitable for fighting metal fires.

KV-LITE TEC is developed, registered & patented by ISRO, Dept. of Space-Govt of India. We are licensed to manufacture TEC with authorisation of Technology Transfer Agreement.

KV-LITE TEC is ternary eutectic chloride (TEC) based dry powder specially formulated eutectic mixture of 3 (ternary) salts for metal fires. It is treated with speciality chemicals to impart flow properties and excellent water repellency.

KV-LITE TEC powder fuses at temp. of 600- 650 °C and has high latent heat of fusion. The powder absorbs heat from burning metal & forms a hard crust on surface, which provides blanketing effect, thereby cutting off Oxygen and heat radiation from burning metal surface. Chloride radicals of powder react with free radicals of metals responsible for fire propagation, resulting retardation of chain reaction. The unique composition of ternary eutectic chloride of alkali metals gives fast & effective fire knock down capability, which cannot be matched by ordinary mixtures of chloride salts or phosphate base powders.

KV-LITE TEC is suitable for Class D fire risk including reactive metals like Li, Na, K, Mg, Al powders & paste, Ti, Fe and their alloys. The powder has also been tested with explosive composition of these metals as well as delay detonation compositions. It is also used for ammonium perchlorate and other such compounds. KV-LITE TEC can extinguish small oil fires and can also be used for electrical fires.

### CREDIBILITY :

It is tested, tried, proven and accepted since more than 2 decades by Defence Establishments - Ordnance Factories, Research labs, DRDO, HEMRL, DMRL, ISRO, Ports, Atomic Energy & Nuclear Fuel Complex, Metallurgical industries.

### APPROVALS :

- ISRO, Govt. of India
- Directorate General of Mines Safety (DGMS), Govt. of India.
- Our In House R &D facility is approved by Govt. of India, (DSIR).
- Confirms to IS 4861 Standard.
- By any Third Party Inspecting Agency like Lloyds, DNV, BV etc
- Manufacturing & Quality System to ISO 9001:2008 & ISO 14001:2004

### ALSO CONFIRMS TO:

- European standard EN 615 & EN 3
- Underwriters Laboratories UL-299 & UL -711
- International Standard Organisation - ISO: 7202

### APPLICATION :

KV-LITE TEC powder should be applied gently, through diffuser of fire extinguisher or through an automatic powder dispensing systems. High pressure may splash the burning

metal & fire may start at other place. Dry powder can also be manually applied on burning metal by a scoop, shovel or a plastic bag. Care should be taken to cover the surface completely without pinholes and then be left undisturbed for at least 30 to 45 minutes.

We have developed extinguishers with pressure regulator valve to control the gas pressure & specially designed dome (diffuser) and extension pipe to achieve efficient gentle dispensing of powder from a safe distance. Wheeled extinguishers are designed to give easy maneuverability with minimum effort. They are available in different sizes and capacities.

#### **COMPATIBILITY:**

KV-LITE TEC is foam compatible and can be used in twin application system.

#### **STORAGE & SHELF LIFE:**

It has min. 3 years shelf life, considering tropical conditions & if properly stored in original packing. Refer Technical Bulletin for storage guidelines. It can be safely stored upto 49 °C, with intermittent exposure upto 60 °C. The container should be protected from direct sunlight & moisture.

#### **ECOLOGY:**

It is environmentally safe and no harmful gases are evolved during fire fighting operation. For long period of exposure, mask should be used. Refer Material Safety Data Sheet for guidelines. Environmental tests can be conducted from NABL/FDA Appvd. Lab, on request.

#### **TECHNICAL PARAMETERS:**

PROPERTY	VALUES
APPEARANCE	Off-White, powder
APPARENT DENSITY	1.00 - 1.04 gm./cc
WATER REPELLENCY	< 3 %
MOISTURE CONTENT	< 0.5 %
FLOWABILTY	> 50 gm./sec.

#### **PACKAGING**

KV-LITE TEC is packed in HMHDPE Bag with polyethylene liner which in turn is then packed in HMHDPE container of 50 Kg packing. Special packing can be supplied on request.

#### **DISPOSAL:**

KV-LITE TEC should be disposed off as per the local regulations.

**EMERGENCY SERVICE :**      **HELP LINE**      **+ 91 9225124508**

- The above data is given in good faith and for general guidelines only.
- We can match the product to your specifications and/or any applicable standards.
- The right is reserved to vary or modify any specification without prior notice.



## **K. V. FIRE CHEMICALS (I) PVT. LTD.**

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