



# **WELCOME CHEMICALS**

**MINERALS • CHEMICALS • PIGMENTS • FERRO ALLOYS**

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## **ZINC BORATE**

**Introduction:-** It is a boron based fire retardant. It can be used as a fire retardant in PVC, Polyolefins, Elastomers, Polyamides, Epoxy resins. It is used in conjunction with antimony oxide, while in halogen free systems. It is normally used in conjunction with alumina trihydrate, magnesium hydroxide, red phosphorus, and ammonium polyphosphate.

### **Physical and chemical properties:-**

Chemical Name : ZINC BORATE 2335  
Mol. Formula :  $2\text{ZnO} \cdot 3\text{B}_2\text{O}_3 \cdot 3.5\text{H}_2\text{O}$   
Mol. Wt. : 430 g/mol  
Appearance : White powder  
Zinc Oxide (ZnO)% : 38%  
Boric Acid (B<sub>2</sub>O<sub>3</sub>)% : 48%  
LOI : 15%  
Mesh Size (320 Mesh) : 0.50% Max

### **Applications:-**

1. Zinc Borate can be used as a kind of multifunctional synergistic additive of Antimony oxide and other halogen flame retardant, can improve the nature of flame retardant effectively, to reduce the smoke produced when combustion, and can adjust rubber products chemical machinery, electricity and other aspects of performance.
2. Zinc borate is being directly applied to a wide range of plastics and rubber processing, such as PVC, PE, PP, enhance polyamide, PVC resin, polyphenylene ethylene, epoxy resin, polyester resin acid ethylene and natural rubber, styrene butadiene rubber, chloroprene rubber.
3. It can also be applied to the production of paper, fiber fabric, decorative panels, floor leather, wallpaper, carpet, ceramic glaze, fungicides, and paint production in order to improve flame retardants performance.
4. Based on other natures, zinc borate, can also be used for anti corrosion and far infrared absorption.



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### **Advantages:-**

- Used as Flame Retardant and Smoke Suppressant.
- In contrast to antimony oxide, which promotes smoke formation, zinc borate reduces smoke emission.
- Used as a synergist with antimony oxide.
- After glow Suppressant .
- Char Promoter form a glassy layer .
- Used in flame retardant vinyl chloride latex formulations, as an adhesive in bonding fiberglass insulation to aluminum foil .

### **Packing:-**

20 or 25 kg is available(and as per required).

### **Handling and storage:-**

Handling : Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.