



# SK MINERALS & ADDITIVES PVT. LTD.

**HOFNIL : Igniting the Innovation in Flame Retardants**

Customer-Centric & Cost-Effective  
Solution of Complex Synthesis





# SK Minerals & Additives Private Limited

HOFNIL : Igniting the Innovation in Flame Retardants

SK Minerals is a well-established company with 15 years of experience in various sectors including Industrial Chemicals, Animal Feed Additives, Specialty Chemicals & Import-Export Distribution. Our manufacturing plant is strategically located in Khanna Industrial Area, Punjab, on the highway to Delhi Which provide easy access and efficient logistics.

## INTRODUCTION OF FLAME RETARDANTS

Flame retardants are chemicals used to inhibit ignition, prevent combustion, or extinguish flames. They work through various mechanisms depending on their type:

- **Inhibition of Ignition and Combustion:** Flame retardants can alter the polymer's nature near the flame, preventing it from igniting or burning.
- **Vapour-Phase Action:** These flame retardants interfere with free radical mechanisms or reduce the availability of flammable gases and oxygen, thus hindering the combustion process.
- **Condensed-Phase Action:** Active in the molten polymer near the flame, these retardants disrupt thermal degradation processes.
- **Intumescent Systems:** Common in flame-retarded coatings, these systems puff up in the presence of flame to form charrable foams that help to insulate and protect the underlying material.

## Flame Retardants by SK Minerals & Additives Private Limited

SK Minerals & Additives Private Limited offers a comprehensive range of flame retardants designed to achieve high levels of safety, reliability, and energy efficiency. Our flame retardants are engineered to provide superior protection against fire hazards, emphasizing product safety and quality.

### AREAS OF APPLICATION

- ▶ Printed Circuit Boards
- ▶ Electrical Cables
- ▶ Polymers like plastic & rubbers
- ▶ Paints
- ▶ Carpets
- ▶ Upholstery
- ▶ Domestic Kitchen Appliances

### PRODUCT FEATURES

- ▶ Stress-crack resistance
- ▶ High Impact Strength
- ▶ High Durability
- ▶ Effective Reduction of heat released
- ▶ Reduced Smoke Generation
- ▶ Energy Efficient
- ▶ Cost Competitive



## HOFNIL HFFR: Flame Retardant for Plastics

HOFNIL HFFR is a specialized flame retardant designed specifically for plastics. It plays a crucial role in both industrial applications and everyday devices by providing effective flame prevention. The action of flame retardants in plastics involves chemical reactions that moderate one or more of the essential elements for combustion: fuel, heat or oxygen.

### VERSATILE APPLICATIONS:

Suitable for a wide range of plastic products, from industrial components to consumer electronics.

### CHEMICAL MECHANISMS:

By altering the chemical processes involved in combustion, HOFNIL HFFR helps to prevent the spread of fire and reduce damage.

## PRODUCT LIST

WE OFFER :- A comprehensive range of flame retardant products, including

- Ammonium Polyphosphate (Phase 1-5)
- Melamine Cyanurate (MCA)
- Melamine Polyphosphate (MPP)
- Antimony Trioxide (ATO) Replacement
- Anti-Drip Agents
- Zinc Borate
- Bisphenol A Diphosphate (BDP)
- Resorcinol Bis (diphenyl phosphate) (RDP)

## APPLICATIONS

Our halogen-free flame retardants are suitable for a wide range of applications, including:

- Polypropylene (PP)
- Polyethylene (PE)
- Wire & Cables
- Nylon-6 & Nylon-66
- Polybutylene Terephthalate (PBT)
- Polycarbonate (PC)
- Polycarbonate-Acrylonitrile Butadiene Styrene (PC-ABS)
- Wood
- Intumescent Paints & Coatings
- Textiles & Back Coatings
- Rubbers
- Polyurethane (PU) Foam and Polyurethane Rubber (PUR)

## Quality Control, Quality Assurance and Standards

- **UL-94 V0-V2:** A standard for flammability of plastic materials.
- **Glow Wire Test:** Evaluates the fire resistance of electrical components.
- **Limit Oxygen Index Tester:** Measures the minimum concentration of oxygen required for combustion.
- **Smoke Density Test:** Assesses the amount of smoke generated during combustion.
- **Thermogravimetric Analyzer:** Analyzes the thermal stability and composition of materials.
- **Heat Release Rate (HRR):** Measures the energy released during combustion.
- **Total Heat Release (THR):** Assesses the total amount of heat released.
- **UV-Vis Spectrophotometer:** Measures absorbance and transmittance of UV and visible light.
- **Melt Flow Index (MFI):** Determines the flow characteristics of thermoplastic polymers

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**PRODUCT LIST**

**WE OFFER**

- **AMMONIUM POLYPHOSPHATE (PHASE 1-5)**
- **MELAMINE CYANURATE (MCA)**
- **MELAMINE POLYPHOSPHATE (MPP)**
- **ANTIMONY TRIOXIDE (ATO) REPLACEMENT**
- **ANTI-DRIP AGENTS**
- **ZINC BORATE**
- **BISPHENOL A DIPHOSPHATE (BDP)**
- **RESORCINOL BIS (DIPHENYL PHOSPHATE) (RDP)**



**SK MINERALS & ADDITIVES PVT. LTD.**

SK MINERALS is one of the leading speciality company based on our commitment to honesty and ethical business practices.

**Get in touch now**

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