

Aluminum diethyl hypophosphite flame-retardant masterbatch AKnoka[®] BM809

I. Product Introduction

AKnoka[®] BM809 is a compounded masterbatch based on diethyl hypophosphite aluminum, designed for the modification and granulation of high-temperature resistant nylon, PA6, PA66, and elastomer materials, as well as injection molding applications.

General characteristic

Surface	White powder
Molecular formula	(C ₄ H ₆ O ₂ P) ₃ ·Al
Cas number	225789-38-8
Formula weight	/
Water-solubility	Insoluble in water and common organic solvents

Key indicators

Project	Unit	Numeric value
Phosphorus content	%	23-24
Moisture Content	%	≤0.5
Bulk density	g/cm ³	0.4-0.6
Decomposition temperature	°C	≥350
Particle size (D50)	μm	10-15
Coating	/	N/A

II. Product Features

The diethyl phosphine aluminum flame retardant masterbatch BM809 exhibits outstanding thermal stability, weather resistance, and low toxicity. It demonstrates exceptional flame retardancy and smoke suppression capabilities while being environmentally friendly and halogen-free. With excellent compatibility with automotive and building material systems, it meets the thermal runaway protection requirements for new energy vehicles and the fire safety and environmental protection demands of construction. The product is designed to meet dual high standards for automotive high-reliability safety and building fire resistance.

III. Application Fields

It can be widely applied in structural components of power battery packs, automotive electronics and interior materials, while also covering fireproof coatings, building insulation and waterproof membranes, as well as various building material profiles.

IV. Storage and Packaging

Packaging: Each bag has a net weight of 25 kg and is constructed with a three-layer composite paper bag lined with polyethylene (PE).

Storage: Store in a cool, dry place.

V. Safety and Environmental Protection

The Material Safety Data Sheet (MSDS) for this product may be obtained from our company upon request. The MSDS provides information on material handling, safety precautions, disposal requirements, and applicable local health and safety regulations. This product complies with EU RoHS/REACH regulations. According to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), this product is not classified as hazardous.

VI. Remarks:

The information and data provided in this document are for reference purposes only, based on our current technical expertise and experience. Customers must conduct tests on purchased products to verify their suitability for specific processes or applications and ensure compliance with intended objectives. We cannot control further applications or processing procedures of the products. Our liability is limited to the delivered products you use and does not cover any indirect losses arising from their use. Our technical support and customer service teams are available to provide product consultation and application assistance. Please feel free to contact us via email or phone.