

## 10-(2,5-dihydroxyphenyl)-10-hydro-9-oxo-10-phosphazetidine-10-oxide AKnoka<sup>®</sup> DOPO-HQ

### I. Product Introduction

AKnoka<sup>®</sup> DOPO-HQ is a dual-functional reactive halogen-free phosphorus-based flame retardant synthesized with DOPO and hydroquinone as its core structure. The molecule contains two active phenolic hydroxyl groups that form stable covalent bonds with epoxy resins, polyesters, and phenolic resins, achieving permanent flame retardancy. It serves as a mainstream alternative to halogen-based flame retardants in the high-end electronic materials sector.

#### General characteristic

Surface	White powder
Molecular formula	C <sub>18</sub> H <sub>13</sub> O <sub>4</sub> P
Cas number	99208-50-1
Formula weight	324.27

#### Key indicators

	Project Unit Value	Project Unit Value	Project Unit Value
Phosphorus content		%	9.5-9.7
Purity		%	≥99.0
H <sub>2</sub> O		%	≤0.30
Melting point		°C	247-253
Cl <sup>-</sup>		ppm	≤50
Decomposition temperature		°C	≥360

### II. Product Features

Reaction-based flame retardancy with non-migration and non-exudation properties, providing durable flame retardant effects without compromising electrical performance or thermal stability of materials. Low-smoke, halogen-free, environmentally friendly, and non-corrosive gas emission. Features high decomposition temperature, excellent compatibility, and minimal impact on substrate properties.

### III. Application Fields

Home appliance casings, chargers, power adapters, PCB circuit boards, and related fields.

#### **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.

#### **6. 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, ensuring compliance with intended objectives. We cannot control further product applications or manufacturing processes. Our liability is limited to the delivered products you use and does not cover any indirect losses arising from their application. 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.



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