



## TECHNICAL DATA SHEET

### 1. Product Identification

Product Name: Magnesium Pyrophosphate

CAS No.: 13446-18-9

Molecular Formula:  $Mg_2P_2O_7$

Molecular Weight: 222.55 g/mol

### 2. Chemical & Physical Properties

Property	Typical Value
Appearance	White to off-white powder
Odor	Odorless
Solubility in Water	Practically insoluble
Solubility in Acids	Slightly soluble
pH (10% suspension, 25 °C)	6.5 – 7.5
Bulk Density	0.6 – 0.9 g/cm <sup>3</sup>
Thermal Stability	Stable, decomposes > 900 °C

### 3. Typical Specifications

Parameter	Specification
Assay ( $\text{Mg}_2\text{P}_2\text{O}_7$ ), %	$\geq 98.0$
$\text{MgO}$ , %	35.0 – 37.0
$\text{P}_2\text{O}_5$ , %	61.0 – 64.0
Loss on Drying, %	$\leq 1.0$
Water Insoluble, %	$\leq 0.30$
Heavy Metals (as Pb), mg/kg	$\leq 10$

### 4. Applications

- Ceramics & Refractories
  - Flux and stabilizing agent
  - High-temperature ceramic formulations
- Specialty Materials
  - Flame-retardant and smoke-suppressant systems
  - Functional fillers
- Industrial Chemicals
  - Magnesium and phosphorus source
  - Controlled-reactivity phosphate systems
- Research & Specialty Use
  - Catalyst carriers
  - Advanced material synthesis

### 5. Advantages

- High purity and stable composition
- Excellent thermal resistance
- Low solubility and controlled reactivity
- Consistent particle characteristics

## **6. Packaging & Storage**

- Packaging: 25 kg paper bag or fiber drum with inner PE liner
- Storage: Store in a cool, dry, well-ventilated place
- Shelf Life: 36 months under proper storage conditions

## **7. Regulatory & Compliance**

- Non-GMO
- BSE/TSE free
- Allergen free
- Suitable for industrial and specialty applications