



TECHNICAL DATA SHEET

1. Product Identification

Product Name: Magnesium Pyrophosphate

CAS No.: 13446-18-9

Molecular Formula: $\text{Mg}_2\text{P}_2\text{O}_7$

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 ³
Thermal Stability	Stable, decomposes > 900 °C

3. Typical Specifications

Parameter	Specification
Assay ($\text{Mg}_2\text{P}_2\text{O}_7$), %	≥ 98.0
MgO, %	35.0 – 37.0
P_2O_5 , %	61.0 – 64.0
Loss on Drying, %	≤ 1.0
Water Insoluble, %	≤ 0.30
Heavy Metals (as Pb), mg/kg	≤ 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