



TECHNICAL DATA SHEET

Product Name: Potassium Tripolyphosphate

CAS Number: 13845-36-8

Molecular Formula: $K_5P_3O_{10}$

Molecular Weight: 448.42

EINECS No.: 237-566-4

EC Code: Not allocated

1. Product Description

Potassium Tripolyphosphate (KTPP) is a white, free-flowing crystalline powder and an important inorganic phosphate. It is widely used as a functional ingredient due to its excellent chelating, dispersing, and buffering properties. KTPP is commonly applied in detergents, water treatment, industrial formulations, and specialty chemical processing, particularly where potassium-based, low-sodium systems are required.

2. Specification

Parameter	Specification
Appearance	White crystalline powder
Bulk density	0.85 – 1.05 g/cm ³
Particle size	60 – 100 mesh
Identification	Positive
Assay (as $K_5P_3O_{10}$)	≥ 95.0%
P ₂ O ₅ content	≥ 42.0%
Potassium (K)	≥ 25.0%
pH (1% solution)	9.0 – 10.5
Loss on Drying	≤ 1.0%
Water Insoluble Matter	≤ 0.10%
Heavy Metals (as Pb)	≤ 10 ppm
Arsenic (As)	≤ 3 ppm
Chloride (Cl ⁻)	≤ 0.10%
Sulfate (SO ₄ ²⁻)	≤ 0.50%

3. Applications

- Detergents and cleaning formulations
- Water treatment and industrial water systems
- Industrial and agricultural chemical formulations
- Specialty chemical and technical applications

4. Packaging and Storage

- **Packaging:** 25 kg net weight per paper bag or fiber drum, inner with PE liner
- **Shelf Life:** 24 months when properly stored
- **Storage Conditions:** Store in a cool, dry place, protected from moisture and direct sunlight

5. Regulatory Status

Industrial grade

Manufactured under ISO-certified facilities

Non-GMO, Allergen-Free, BSE/TSE-free