



TECHNICAL DATA SHEET

1. Product Identification

Product Name: Potassium Tripolyphosphate

Synonyms: KTPP, Tripotassium Tripolyphosphate

Chemical Formula: $K_5P_3O_{10}$

CAS No.: 13845-36-8

EINECS No.: 237-731-7

Molecular Weight: 448.42 g/mol

2. Product Description

Potassium Tripolyphosphate is a white, free-flowing crystalline powder with excellent water solubility. It is widely used as a sequestrant, emulsifier, dispersing agent, buffering agent, and water softener in food processing, detergents, ceramics, and industrial applications.

Compared with sodium tripolyphosphate, KTPP provides lower sodium content and is especially suitable for low-sodium formulations.

3. Technical Specifications

Index	Specification
Phosphorus Pentoxide (P_2O_5), w/%	≥ 46
pH(10g/L Solution)	9.2-11.1
Insoluble Substances, w/%	≤ 2
Arsenic (As), w/%	≤ 0.0003
Loss on Drying(120°C), w/%	≤ 0.4
Lead (Pb) , w/%	≤ 0.0004
Heavy metal (as Pb) , w/%	≤ 0.0015
Fluoride(F), w/%	≤ 0.001

4. Solubility

Solubility in Water: Easily soluble

Solubility in Organic Solvents: Insoluble

5. Typical Applications

Food Industry

Used as emulsifier, stabilizer, water retention agent, and chelating agent in meat products, seafood processing, dairy products, and processed foods (subject to local regulations).



Detergent Industry

Functions as a water softener and dispersing agent, improving washing efficiency.

Ceramics & Industrial Applications

Acts as a dispersant and deflocculant in ceramic slurries and industrial cleaning formulations.

Specialty Formulations

Suitable for low-sodium or potassium-enriched formulations.

6. Packaging

25 kg net paper bag with inner PE liner

Customized packaging available upon request

7. Storage & Handling

Store in a cool, dry, and well-ventilated place

Keep away from moisture and incompatible materials

Shelf life: **24 months** under proper storage conditions

8. Safety Information

This product is not classified as hazardous under normal conditions of use.

Avoid inhalation of dust and direct contact with eyes.

Please refer to the corresponding **Safety Data Sheet (SDS)** for detailed safety information.

9. Regulatory Information

Complies with common international industrial and food additive standards (depending on grade)

Food grade application subject to local regulations and customer confirmation

