



Technical Data Sheet (TDS): Disodium Phosphate

General Information

Manufacturer: Jiangsu Khonor Chemicals Co., Limited

CAS Numbers:

- Anhydrous: 7558-79-4
- Dihydrate: 10028-24-7
- Dodecahydrate: 13573-18-7

EC Numbers:

- Anhydrous: 231-448-7
- Dihydrate: 231-448-7
- Dodecahydrate: 236-879-6

E Number (Food Grade): E339(ii)

Specifications (Summary)

Anhydrous Disodium Phosphate (Food Grade):

- Assay: 98.0 - 100.5%
- pH: 8.8 - 9.2
- Water Insoluble: $\leq 0.2\%$
- Heavy Metals: ≤ 10 ppm
- Arsenic: ≤ 1.0 ppm

Dihydrate Disodium Phosphate (Food Grade):

- Assay: 98.0 - 100.5%
- pH: 8.6 - 9.2
- Water Insoluble: $\leq 0.2\%$
- Heavy Metals: ≤ 10 ppm
- Arsenic: ≤ 1.0 ppm

Dodecahydrate Disodium Phosphate (Food Grade):

- Assay: 98.0 - 101.0%
- pH: 8.5 - 9.2
- Water Insoluble: $\leq 0.2\%$
- Heavy Metals: ≤ 10 ppm
- Arsenic: ≤ 1.0 ppm

Production Process

Disodium phosphate is produced by neutralizing phosphoric acid with sodium carbonate or sodium hydroxide, followed by crystallization and drying. The process varies to yield anhydrous, dihydrate, or dodecahydrate forms depending on cooling and drying steps.



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Mechanism of Action

Acts as a pH buffer, emulsifier, and chelating agent. Maintains alkalinity and regulates acidity. In water treatment, binds calcium/magnesium ions for softening.

Applications

Food Industry: Buffering agent, emulsifier, preservative in cheese, meat, beverages, and baked goods.

Detergent: Water softener, alkalinity booster.

Water Treatment: Scale inhibition, corrosion control.

Textiles: Dye fixation, water conditioning.

Pharmaceuticals: Buffer in ORS, stabilizer.

Ceramics & Electroplating: Electrolyte additive.

Packaging

- 25 kg Kraft Paper Bag with PE Liner
- 500 kg / 1000 kg Jumbo Bags
- OEM available.

Storage & Handling

Store in a cool, dry place. Avoid moisture, sunlight, and incompatible materials (e.g., strong acids).

Safety & Transport

Non-hazardous under UN/IMDG/IATA regulations. Use protective equipment. In case of contact, rinse with water. Shelf Life: 2 years.