



TECHNICAL DATA SHEET

Product Name: Potassium Glycerophosphate

Synonyms: Dipotassium glycerophosphate solution; Dipotassium 2,3-dihydroxypropyl phosphate solution

CAS No.: 1319-69-3

EC / EINECS No.: 215-291-1

Molecular Formula: $C_3H_7K_2O_6P$

Molecular Weight: ≈ 248.25 g/mol (dipotassium salt)

1. Product Description

Potassium Glycerophosphate Solution is a clear to pale yellow, aqueous solution of dipotassium glycerophosphate. It is used as a potassium source, buffering agent, nutritional fortifier, electrolyte component, and stabilizer.

Typical commercial solutions: 10%, 25%, 50%, and 75% w/w (customizable).

2. Typical Physical & Chemical Properties

Parameter	Specification
Assay (dry basis)	$\geq 98.0\%$ (for powder basis; solution expressed as % w/w)
Appearance	Clear to pale yellow liquid
Heavy metals (as Pb)	≤ 10 ppm
Arsenic (As)	≤ 2 ppm
Chloride	≤ 200 ppm
Sulfate	≤ 500 ppm
Microbial limits (Food/Nutrition grade)	TPC ≤ 1000 CFU/g; Yeast & Mold ≤ 100 CFU/g; Pathogens absent

3. Typical Specification (Reference Only)

Parameter	Specification
Assay (dry basis)	$\geq 98.0\%$ (for powder basis; solution expressed as % w/w)
Appearance	Clear to pale yellow liquid
Heavy metals (as Pb)	≤ 10 ppm
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Sulfate	≤ 500 ppm
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Final quality confirmed by Certificate of Analysis (COA).

4. Analytical Methods

Assay: Titration/IC/HPLC

pH: Electrode method

Heavy metals: ICP-OES/ICP-MS

Ion impurities: Ion chromatography
Microbiology: Standard ISO/USP methods

5. Applications

Electrolyte drinks & sports nutrition
Food mineral fortification and buffering
Nutraceutical formulations
Parenteral nutrition (pharma grade only)
Cell culture and laboratory reagents

6. Packaging & Storage

Packaging: 25 kg drum / 200 kg drum / 1000 kg IBC or per request
Storage: Keep tightly closed, in cool, dry, and ventilated place
Avoid: Freezing and direct sunlight
Shelf Life: 12 months under proper storage conditions

7. Safety & Handling

Avoid eye and prolonged skin contact
Use PPE including gloves and goggles
Refer to SDS for full safety instructions
Non-dangerous goods in common transport (check local regulations)

8. Regulatory and Documentation

CAS / EC identifiers provided on label and COA
ISO / HACCP / Kosher / Halal certification can be provided for food grade
SDS, COA, and TDS available per shipment