

TECHNICAL INFORMATION

Catalog Number: 150134, 152538, 194010

Lithium Chloride

Structure:

Li⁺ Cl⁻

Molecular Formula: LiCl

Molecular Weight: 42.39

CAS # : 7447-41-8

Physical Description: White powder

Solubility: Soluble in water (1 g/ 1.3 ml cold water or 0.8 ml hot water), alcohol, acetone, amyl alcohol, pyridine; the aqueous solution is neutral to slightly alkaline.¹

Description: Used as an electrolyte for low temperature dry battery cells and as an oxidation catalyst. It is a solubilizer for polyamides and cellulose when used with amide solvents, and is a chlorinating agent for steroid substrates.

Lithium chloride has also been utilized in:

- Large scale plasmid DNA isolation without ultracentrifugation.⁵
- Protein extraction and protein crystallization.^{2,3,4,7,8}
- Crystallization of other biological structures, including vitamin B12-RNA aptamer and the L-A virus particle.^{10,13}
- Inhibits the expression and secretion of insulin-like growth factor-binding protein-1 in H4-II-E cells.⁹
- Used in the synthesis of beta-substituted alpha-amino acid derivatives.^{6,11}

Availability:

Catalog Number	Description	Size
150134	Lithium chloride anhydrous	100 g 500 g 1 kg 10 kg
194010	Lithium chloride, molecular biology reagent	100 g 500 g
152538	Lithium chloride, ACS Reagent Grade	100 g 500 g

References:

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