Lithium Chloride

Beyond its conventional use as a salt, lithium chloride (LiCl) has surprisingly broad applications. Lithium-ion batteries use LiCl as a precursor for protective coatings on their lithium metal electrodes. This is a significant advancement in battery technology. The electrode stability and battery performance are improved by these coatings. LiCl prolongs battery life and performance by promoting lithium-ion movement, or diffusion, within the cell and preventing the production of dangerous lithium dendrites.

Beyond batteries, scientific investigation focuses into the possible medical impacts of LiCl. The main area of research is how LiCl may affect autophagy, a process that occurs during cell recycling. Although early research points to LiCl's impact on autophagy in certain cultured cells, it is unknown what the mechanisms are and how widespread this effect is. It is also shows inhibitory effects on gram-negative bacteria which is useful in selective microbial culture media.

LiCl's effects on the gastrointestinal tract and food intake are investigated in animal model studies; nevertheless, more investigation is required to fully comprehend the possible therapeutic applications.

Lastly, a small amount of preliminary research explores the relationship between LiCl, the synthesis of GLP-1, and the treatment of metabolic diseases; however, further investigation is needed to validate its efficacy.

Cat. Number	ASC-1026
CAS Number	7447-41-8
MDL Number	MFCD00011078
PubChem	310275837
Molecular Weight	42.39 g/mol
Molecular Formula	LiCl
Storage Temperature	+20°C
Form and Color	Crystalline Powder, White
Solubility (20% in water)	Clear, Colorless solution
Acid Insoluble Substances	≤ 0.01% (in 4M HCl)
Melting Point	605 °C
Density	2.068 g/cm3
Water	≤ 1.0%
Assay	≥ 99.0%