



Lithium Chloride, ACS Grade

CAS No. 7447-41-8

QS-PDS-1053 Revision: 05

Date of Last Revision: September 15, 2022

**Formula:** LiCl

**Appearance:** White, free-flowing crystals; occasional dark specks may be present.\*  
Meets or exceeds ACS Reagent Grade Specifications

\* Occasional dark particles may be visible and scattered in the product. The particles have no detectable effect on product purity and will not be cause for rejection.

**Application:** ACS grade used for Electrolyte for dry cells used at low temperatures, catalyst in certain oxidation reactions, solubilizer for polyamides and cellulose when used with amide solvents, chlorinating agent for steroid substrates.

<b>Product Specifications:</b>	Assay (LiCl), wt. %	99.0	min
	Acid Insolubles, wt. %	0.01	max
	Titrateable Base, meg/g	0.008	max
	Loss @ 105°C**	1.0	max
	Heavy Metals (as Pb), wt. %	0.002	max
	Sulfate (SO <sub>4</sub> ), wt. %	0.01	max
	Barium (Ba), wt. %	0.003	max
	Iron (Fe), wt. %	0.001	max
	Calcium (Ca), wt. %	0.01	max
	Potassium (K), wt. %	0.01	max
	Sodium (Na), wt. %	0.20	max

\*\* Value (as weight percent loss) determined by drying @ 105°C for 2 hours.

**Other Data:** Bulk Density 1 g/cm<sup>3</sup> (62 lb/ft<sup>3</sup>)

<b>Physical Properties:</b>	Molecular Weight	42.39
	Melting Point	608 °C
	Boiling Point	1382°C
	Specific Heat @ 25°C	0.288 cal/g°C
	Standard Heat of Formation	-97.70 kcal/mole
	Heat of Solution @ 18 °C	-8.49 kcal/mole
	Heat of Fusion	4.7 kcal/mole



Density @ 25°C                      2.068 g/cm<sup>3</sup>

**Solubility:** Water solubility is 45.4 wt. % @ 25°C. Moderate solubility in organic solvents.

**Toxicity / Safety Data / Handling / Storage / Disposal:** *Information on toxicity, safety, handling, storage and disposal is contained in the Safety Data Sheet (SDS) for this product.*

- Shipping Containers:**
- 50 Kg of product in a polyethylene-lined fiber drum. Nine (9) fiber drums per pallet.
  - 200 Kg of product in a polyethylene-lined fiber drum. Four (4) fiber drums per pallet.
  - 1000 Kg of product, in a lined super sack on a pallet.

**Shipping Limitations:** Shipments of lithium chloride require no dangerous goods shipping labels.

Post, Parcel, Air, Water, Rail, Truck                      Acceptable within each carrier's weight limits and packaging requirements.