

Lithium, Lithium Minerals and Lithium Chemicals

May 2025

Abstract

This report covers primarily lithium carbonate, lithium hydroxide and spodumene concentrate in which lithium is contained, with additional data on lithium chloride, lithium bromide, lithium metal and organolithium compounds.

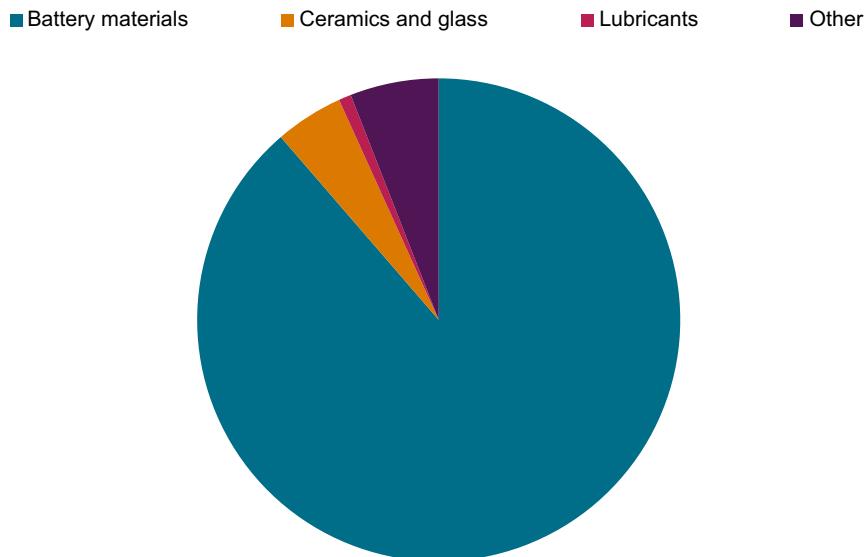
Lithium is sourced from the evaporation and concentration of lithium-containing brines or from the metallurgical processing of hard rock lithium-bearing deposits, mainly containing spodumene. The production of lithium from hard rock dominates, with a 65% share in 2024. Brine-derived production still constituted a large part of the market share, accounting for 34% of the supply in 2024.

Australia, with its hard-rock derived spodumene concentrate production, dominated lithium raw material production by source in 2024. Production of lithium from salt lakes in Chile, Argentina, the United States and mainland China still represents a large part of the market share and is also typically more cost effective and environmentally sustainable from the perspective of carbon dioxide emissions. Mainland China continues to dominate the production and capacities for the chemical step in lithium compounds production.

The main driver of growth in demand in recent years has been secondary (rechargeable) lithium-ion batteries for electric vehicles (EV) and energy storage systems (ESS). During 2020–24, global lithium consumption increased at nearly 32% per, with growth of 20% per year forecast in 2024–29. Future growth will continue to be driven by demand for batteries in EVs, and utility and home energy storage facilities.

The following chart shows world consumption of lithium by end use:

World consumption of lithium — 2024



Data compiled March 30, 2025.

Source: S&P Global Commodity Insights.

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Batteries, rechargeable batteries in particular, are the leading market for lithium compounds. The main driver for lithium consumption growth has been lithium-ion batteries (LIBs) for electric vehicles, including battery electric vehicles (BEVs), hybrid electric vehicles (HEVs) and plug-in hybrid vehicles (PHEVs).

Governments worldwide have introduced incentives to encourage individuals and business fleets to buy EVs in an attempt to advance the technology and to reduce emissions from internal combustion engines (ICEs). Mainland China entered the EV market and quickly became the largest producer and consumer of EVs. In 2015, mainland Chinese car brands began competing with Japanese, South Korean, European and US brands. Vehicle producers, battery producers and cathode producers are continually striving to improve battery energy, size, weight and safety, as well as reduce the price to make EVs more affordable.

The chemical market is dominated by lithium battery material production. Lubricant greases, primary aluminum production, drop resistant glass for smartphones and tablets, air treatment as an absorbent and desiccant, continuous steel casting, initiator in rubber and thermoplastic applications, pharmaceuticals, and aluminum-lithium alloys in aerospace applications are other chemical markets for lithium. The leading technical applications include the glass, ceramic, lubricants, and metallurgical industries, where its low cost and inherent benefits of having alumina and silica content make it the product of choice.

The use of lithium carbonate, hydroxide, and other lithium chemicals in EV batteries is driving lithium demand, while political, environmental and economic factors weigh heavily on the decision to use EVs, including HEVs and PHEVs. The existing lithium raw materials supply is sufficient for the projected growth in demand from EVs past 2030.

For more detailed information, see the table of contents, shown below.

S&P Global's Chemical Economics Handbook – *Lithium, Lithium Minerals and Lithium Chemicals* is the comprehensive and trusted guide for anyone seeking information on this industry. This latest report details global and regional information, including



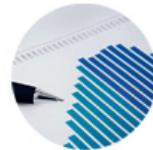
Global summary;
regional coverage



Producers with
annual capacities
and plant sites



Production figures
and trends



Consumption and
forecasts by end use
application



Manufacturing
processes and
environmental issues



Trade – imports
and exports

Key benefits

S&P Global's Chemical Economics Handbook – *Lithium, Lithium Minerals and Lithium Chemicals* has been compiled using primary interviews with key suppliers and organizations, and leading representatives from the industry in combination with S&P Global's unparalleled access to upstream and downstream market intelligence and expert insights into industry dynamics, trade and economics.

This report can help you

- Identify trends and driving forces influencing chemical markets
- Forecast and plan for future demand
- Understand the impact of competing materials
- Identify and evaluate potential customers and competitors
- Evaluate producers
- Track changing prices and trade movements
- Analyze the impact of feedstocks, regulations and other factors on chemical profitability

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