

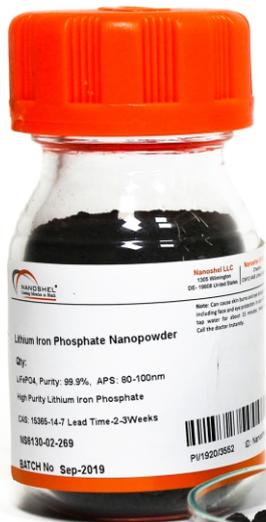
# Lithium **iron** Phosphate

**Stock No.**  
NS6130-02-269

We offer a wide range of lithium iron phosphate (LiFePO<sub>4</sub>) batteries, each specifically engineered to deliver a high cycle life and excellent performance over a wide operating temperature.

LiFePO<sub>4</sub> batteries are the safest battery type currently on the market today. LiFePO<sub>4</sub> batteries offer a solution to demanding applications that require a lighter weight, longer life, and higher capacity battery. Lithium iron phosphate (LiFePO<sub>4</sub>) can operate in a wide temperature range, which makes lithium batteries a good fit for various applications, including ones that undergo extreme temperatures. Lithium is the best option for applications that will exhaust the batteries or run in extreme weather conditions.

Lithium iron phosphate batteries offer significant advantages, including improved discharge and charge efficiency, longer life span and the ability to deep cycle while maintaining power. LiFePO<sub>4</sub> batteries often come with a higher price tag, but a much better cost over life of the product. Lithium iron phosphate is two types of batteries used in today's portable electronics. While they both share some similarities, there are major differences in high-energy density, long life cycles, and safety. Most people are familiar with lithium-ion as they most likely own a smart phone, tablet, or PC. Lithium iron phosphate is a newer type of battery gaining recognition in the manufacturing industries due to its cost-effective materials and stability with high temperatures.



## QUICK Facts

✓ Product	:	Lithium Iron Phosphate
✓ CAS	:	15365-14-7
✓ Molecular Formula	:	LiFePO <sub>4</sub>
✓ Molecular Weight	:	157.757 g/mol
✓ Melting Point	:	>300°C
✓ Foam	:	Powder
✓ Appearance	:	Gray/Black

Nominal voltage vs. Li/Li+: 3.2V

## Advantages of Lithium Iron Phosphate:

- ✓ Very low toxicity for environment (use of iron, graphite and phosphate)
- ✓ Cycle life : from 2000 to several thousand
- ✓ Operational temperature range :up to 70°C
- ✓ Very low internal resistance. Stability or even decline over the cycles.
- ✓ Constant power throughout the discharge range
- ✓ Ease of recycling
- ✓ Very safe and secure technology (No Thermal Runaway)

**Lithium Iron Phosphate**



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## Technical Specification

- ✓ Specific energy : 90–160 Wh/kg (320–580 J/g or kJ/kg)
- ✓ Energy density : 325 Wh/L (1200 kJ/L)
- ✓ Specific power : around 200 W/kg
- ✓ Nominal cell voltage : 3.2 V

## Use Of LiFePO<sub>4</sub>

- ✓ LiFePO<sub>4</sub> used for manufacturer of rechargeable battery. Rechargeable battery are widely used in electronic devices such as storage system, solar energy storage, electric vehicle, telecom, robotic etc
- ✓ LiFePO<sub>4</sub> used in wide range of power solutions for portable and stationary applications. LiFePO<sub>4</sub> batteries are widely used for medical equipment, emergency lighting, POS system etc.
- ✓ Lithium-iron-phosphate batteries for most advanced landscape lights, rechargeable batteries, high output, longer life, higher charge/discharge efficiency. LiFePO<sub>4</sub> is also used in MP Players, various Portable Equipment, PDAs, and Solar batteries etc.

## PROPERTIES of LiFePO<sub>4</sub>

### Long-Term Storage:

The battery should give close to the same charge performance as when it is used for over a year. Both lithium iron phosphate and lithium ion have good long-term storage benefits. Lithium iron phosphate can be stored longer.

### Lithium is quick:

Lithium charges and discharges power rapidly giving you more usage versatility. Fast battery charging is important for applications with little downtime, such as monitoring equipment. Because lead acid batteries need to be charged over a longer period, in stages, and because they deliver poor performance during high discharge periods, they are less versatile than their lithium counterpart.

## APPLICATIONS

- ✓ LED display
- ✓ Video Cameras, Digital Still Cameras
- ✓ Cellular Phones, PHS Phones
- ✓ Laptop Computers
- ✓ MP Players
- ✓ Various Portable Equipment
- ✓ PDAs
- ✓ Solar batteries
- ✓ AGV, Forklift batteries
- ✓ Marine yacht batteries
- ✓ Security CCTV battery

## BENETS LiFePO<sub>4</sub>

- ✓ Fast & safe charging
- ✓ Drop in replacement
- ✓ Constant power
- ✓ Maintenance free
- ✓ Eco-friendly

### PACKING SIZES :

25Gms, 50Gms, 100Gms, 500Gms, 1Kg & Bulk Orders



20ZICE4589C



19ZAZG01274G



20ZICE4588M

ISO 9001:2015  
CERTIFIED COMPANY

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