

TECHNICAL DATA SHEET

Date of Issue: 2018/03/02

Lithium bis-(oxalato)borate - LiBOB (abg), advanced battery grade

CAS-No.	244761-29-3
EC-No.	456-990-3
REACH No.	01-0000019322-77
Molecular Formula	C ₄ BO ₈ Li
Product Number	408507

APPLICATION

LiBOB is a proprietary* conductive agent for the use in high performance Lithium Batteries, Lithium Ion Batteries and Lithium Polymer Batteries. This halide-free product may be used instead of traditional fluorinated compounds like LiPF₆, LiBF₄, Li-triflate, methanides, imides etc. or as an additive to these classical electrolyte salts.

*Extracted patents list

DE19829030C; US6506516; EP1091963B;
KR716373B1; CA2336323C; JP3913474B2

US7208131B; CN1329401C; DE10108608C2;
EP1377592B1; JP4190887B2; TWI324606B;
US7674911B2

EP1483802B1; CN100446334C;

CN101796057B; EP2185569B1; JP5506671B2

SPECIFICATION

Aspect	guaranteed	
assay	min. 97.4 %	typ. 99.5 %
water	max. 0.03 %	typ. 0.01 %
insolubles	max. 2.50 %	typ. 0.5 %

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Technical data sheets may change frequently. You can download the latest version from our website www.albemarle-lithium.com. Please contact us at www.albemarle-lithium.com/contact with questions.



Ca	max. 10 mg/kg	typ. <2 mg/kg
Fe	max. 10 mg/kg	typ. <2 mg/kg
Na	max. 20 mg/kg	typ. <2 mg/kg
Cl	max. 20 mg/kg	typ. <2 mg/kg

PHYSICAL PROPERTIES

Appearance	fine powder
Color	colorless
Decomposition temperature	> 290 °C (Decomposes before melting.)
Density	1.778 g/cm ³ at 20 °C Method: OECD Test Guideline 109
Bulk density	800 - 1,200 kg/m ³
Water solubility	ca. 350 g/L (hydrolyzes)
Solubility in other solvents	ca. 500 g/L at 20 °C Medium: Tetrahydrofuran ca. 170 g/L at 25 °C Medium: propylene carbonate (Good solubility in carbonate mixtures, carboxylic esters, glymes, ketones, lactones.)
Molecular weight	193.79 g/mol
Thermal Stability	decomposition > 290 °C (TGA experiment); hygroscopic; decomposes slowly on contact with water.

HANDLING & STORAGE

Handling	The product should be handled in dry atmosphere.
Storage	Storage for prolonged time requires a tightly closed container.

TRANSPORT & PACKAGING

ADR
Not regulated as a dangerous good

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Hazard pictograms



Signal Word

Danger

H&P Phrases

See Safety Data Sheet

Labelling

The labelling is according to EU-GHS classification ((EG) 1272/2008) and may vary in other countries. Please refer to the respective Safety Data Sheet for your country.

Packaging

- Samples in aluminium bottles and/or aluthene bags
- Steel drums, aluthene bags with PE bags inside

OTHER INFORMATION

Further Related Documents

Safety Data Sheet

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