

TECHNICAL DATA SHEET

Date of Issue: 2025/06/06

Lithium Borohydride, typ. 10 % solution in THF

CAS-No.	16949-15-8
EC-No.	241-021-7
REACH No.	01-2120840551-61
Molecular formula	LiBH ₄
Product number	10006739, 10006740, 10006742, 10006750, 10006867, 10008180, 10008181, 10008182, 10008183, 10008184

APPLICATION

Selective reduction of esters, epoxides, ketones and aldehydes in the presence of other functional groups such as carboxylic acids, amides, nitriles, nitro groups, alkenes and halides. The addition of a stoichiometric amount of methanol increases significantly the reducing power without largely affecting the selectivity.

SPECIFICATION

Lithium Borohydride: 9.5 – 10.5 %

METHOD OF ANALYSIS

Volumetric determination of hydrogen evolved on hydrolysis. Detailed description available on request.

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PHYSICAL PROPERTIES

Appearance	cloudy liquid
Color	light gray
Melting point/freezing point	-108.44 °C at 1,013 hPa (Tetrahydrofuran)
Flash point	-21.2 °C 1,013 hPa (Tetrahydrofuran)
Boiling point/boiling range	65 °C at 1,013 hPa (Tetrahydrofuran)
Density	ca. 0.89 g/cm ³ at 20 °C
Water solubility	(Not applicable)
Molecular weight	21.78 g/mol
Additional Physical Properties	Vapor pressure of the solvent: 170 mbar (20 °C) (Tetrahydrofuran)

HANDLING & STORAGE

Handling	The material should only be handled under inert gas atmosphere. Contact with air and moisture results in rapid decomposition. Contact with materials containing cellulose may lead to spontaneous combustion. Vapors may form explosive mixtures with air. Vapors are heavier than air and may spread along floors. Flash back possible over considerable distance. Use only explosion-proof equipment. Protect from heat and direct sunlight. Never add water or oxidizing materials. Do not store near acids. In case of fire use dry extinguishers based on sodium chloride or limestone powder. Never use water, CO ₂ or foam. Pay attention to the Safety Data Sheet - Section 7.
Storage	When stored according to SDS the material is fairly stable. We still recommend to retest the material 12 month after date of analysis if included on CoA. If not included, use the date of manufacturing for the calculation. We recommend not to exceed a storage temperature of 25 °C.

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TRANSPORT & PACKAGING

UN number 3399

ADR	Class: 4.3	PG: I	Label: 4.3 (3)
RID	Class: 4.3	PG: I	Label: 4.3 (3)
IMDG	Class: 4.3	PG: I	Label: 4.3 (3)
IATA_C	Class: 4.3	PG: I	Packing instruction (cargo aircraft): 494
IATA_P	Class: 4.3	PG: I	

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

Glass bottles of 500 and 1,000 ml. Steel bottles with volumes of 5, 40, 125 or 450 l.

OTHER INFORMATIONFurther Related Safety Data Sheet
Documents

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