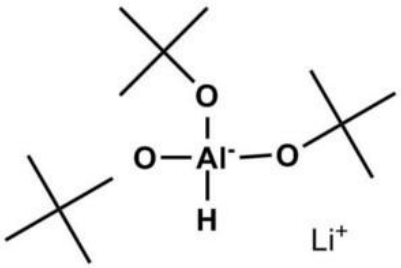
TECHNICAL DATA SHEET

Date of Issue: 2025/11/05

Lithium-tri-(tert-butoxy)-Aluminum Hydride, typ. 30 % solution in THF (typ. 1.1 M)



CAS-No.	17476-04-9
EC-No.	241-490-8
REACH No.	01-2120138355-58-0000
Molecular formula	$C_{12}H_{28}O_3AlLi$
Product number	10004740, 10004785, 10004786

APPLICATION

Reduction of acid chlorides to aldehydes. Stereoselective reductions of carbocyclic and steroid ketones. Reduction of aldehydes and ketones, leaving unaffected halogen-, ester-, lactone, amide-, nitrile-, nitro- and/or epoxy-groups as well as carbon and carbon multiple bonds.

SPECIFICATION

LTTBA: 29 - 32 %

METHOD OF ANALYSIS

Gasvolumetric determination. Detailed description available on request.

PHYSICAL PROPERTIES

Appearance	liquid
Colour	light grey
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. 0.9 g/cm3 at 20 °C
Water solubility	(Not applicable)
Molecular weight	254.28 g/mol
Additional Physical Properties	Solvent: Tetrahydrofuran

HANDLING & STORAGE

Handling	Dilute spilled solution with paraffin oil (but never with halogenated hydrocarbons, alcohols, ketones, esters) and cover with dry sand, ground limestone or cement. The soaked material should then be taken to a safe place and be decomposed. Pay attention to official safety regulations (see also “Transport Regulations“ and “Marking“). In use may form flammable/explosive vapor#air mixtures. Harmful in contact with skin and if swallowed. Keep under argon or nitrogen. Keep container in a well ventilated place. Never add water to this product. Take precautionary measures against static discharges. In case of fire use powder based on sodium chloride or limestone powder. Never use water, halons or carbon dioxide.
Storage	When stored according to the SDS, the solutions are fairly stable. However, even at room temperature slight decomposition with evolution of hydrogen is observed after prolonged storage. As decomposition accelerates with temperature, we recommend not to (continued) exceed a storage temperature of 20 °C and to use the product within a period of six months after receipt. Higher temperatures can be temporarily accepted, for example, during transport.

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 100, 250, 500 and 1,000 ml. Steel bottles and containers with nominal volumes of 5, 40, 125 or 450 l. For safety reasons these are filled to a maximum of 90 %.

OTHER INFORMATION

Further Related Documents Safety Data Sheet

Our brochure(s) Metal Hydrides