## **TECHNICAL DATA SHEET**

Date of Issue: 2017/08/08

# n-Butyllithium, typ. 10.5 % solution in Toluene (1.4 M)

CAS-No. 109-72-8

EC-No. 203-698-7

REACH No. 01-2119494906-21

Molecular Formula C₄H₃Li

Product Number 401801

APPLICATION Initiator for olefin Polymerization. Alkylating and metalating agent.

#### **FURTHER INGREDIENTS**

Toluene

CAS-No. 108-88-3 EC-No. 203-625-9

### **SPECIFICATION**

Chemical analysis:

active base 10.2 - 10.7 % (1.4 M)

free base \*) max. 0.3 %

activity 98 %

CI (covalent) max. 0.03 %

\*) mainly LiOC4H9

#### PHYSICAL PROPERTIES

Appearance clear liquid

Color yellow to orange

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.



Product Number: 401801 Date of Issue: 2017/08/08

Flash point 4 °C (Toluene)

Boiling point/boiling

range

ca. 110 °C (Toluene)

Density 0.86 g/cm3 at 20 °C

Water solubility (Not applicable)

Molecular weight 64.06 g/mol

#### HANDLING & STORAGE

Handling Under exclusion of air and humidity the solution is fairly stable (decomposition rate

at 20 °C: abt. 0.6 % of active material per month). Decomposition does not cause pressure build-up in containers. Butyllithium should always be handled under inert gas like nitrogen although commercially available hydrocarbon solutions of n-butyllithium in concentrations of LiR up to about 25 % normally do not ignite spontaneously when coming in contact with air. Increase in concentration due to

evaporation of solvent results in rising danger of selfignition.

Storage After longer storage, solution of Butyllithium tend to form finely dispersed LiH which

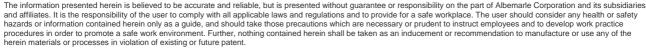
is very likely to ignite when in contact with air. Pay attention to official safety regulations (see also "Transport regulations" and "GHS Hazard Pictograms",

especially fire fighting). Please ask for our Butyllithium brochure.

#### TRANSPORT & PACKAGING

#### UN number 3394

| ADR    | Class: 4.2 | PG: I | Label: 4.2 (4.3) |
|--------|------------|-------|------------------|
| RID    | Class: 4.2 | PG: I | Label: 4.2 (4.3) |
| IMDG   | Class: 4.2 | PG: I | Label: 4.2 (4.3) |
| IATA_C | Class: 4.2 |       |                  |
| IATA_P | Class: 4.2 |       |                  |





Product Number: 401801 Date of Issue: 2017/08/08

#### 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

|                 | nominal content | net content 1) |
|-----------------|-----------------|----------------|
| Isocontainer    | 16.6 - 20.5 m3  | 14.4 - 17.8 m3 |
| Steel container | 2.5 m3          | 2.2 m3         |
| Steel container | 450 I           | 405 I          |
| Steel container | 127 l           | 114            |
| Steel container | 27              | 24             |
| Steel container | 7.4             | 6.5            |

<sup>1)</sup> for safety reasons, max. 90 % or 87 % of nominal content

100, 250, 500 and 1,000 ml glass bottles with screw cap and with or without penetration disc-seal. Solutions are shipped under nitrogen blanket.

## OTHER INFORMATION

Further Related Documents

Safety Data Sheet

Our brochure(s)

Organolithium Compounds, Butyllithium

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Albemarle Corporation and its subsidiaries and affiliates. It is the responsibility of the user to comply with all applicable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

