

# SAFETY DATA SHEET

Version 7.4  
Revision Date 04/02/2026  
Print Date 04/03/2026

## SECTION 1. IDENTIFICATION

### 1.1 Product identifiers

Product name : *n*-Butyllithium solution

Product Number : 186171

Brand : Aldrich

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.  
3050 SPRUCE ST  
ST. LOUIS MO 63103  
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

**Hazards for the product as supplied**

Flammable liquids : Category 2

Pyrophoric liquids : Category 1

Aldrich - 186171

Page 1 of 17

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada

**MILLIPORE  
SIGMA**

|                                                              |                                       |
|--------------------------------------------------------------|---------------------------------------|
| Chemicals which, in contact with water, emit flammable gases | : Category 1                          |
| Skin corrosion                                               | : Sub-category 1B                     |
| Serious eye damage                                           | : Category 1                          |
| Reproductive toxicity                                        | : Category 2                          |
| Specific target organ toxicity - single exposure             | : Category 3 (Central nervous system) |
| Specific target organ toxicity - repeated exposure           | : Category 1                          |
| Aspiration hazard                                            | : Category 1                          |
| Long-term (chronic) aquatic hazard                           | : Category 2                          |

### Other hazards

Reacts violently with water.

### GHS label elements

|                   |   |                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard pictograms | : |      |
|-------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|             |          |
|-------------|----------|
| Signal word | : Danger |
|-------------|----------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard statements | : H225 Highly flammable liquid and vapour.<br>H250 Catches fire spontaneously if exposed to air.<br>H260 In contact with water releases flammable gases which may ignite spontaneously.<br>H304 May be fatal if swallowed and enters airways.<br>H314 Causes severe skin burns and eye damage.<br>H336 May cause drowsiness or dizziness.<br>H361 Suspected of damaging fertility or the unborn child.<br>H372 Causes damage to organs through prolonged or repeated exposure.<br>H411 Toxic to aquatic life with long lasting effects. |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                |                                       |
|--------------------------------|---------------------------------------|
| Supplemental Hazard Statements | : Corrosive to the respiratory tract. |
|--------------------------------|---------------------------------------|

|                          |                      |
|--------------------------|----------------------|
| Precautionary statements | : <b>Prevention:</b> |
|--------------------------|----------------------|

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P222 Do not allow contact with air.  
P223 Do not allow contact with water.  
P231 + P232 Handle and store contents under inert gas. Protect from moisture.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P260 Do not breathe mist or vapours.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P301 + P330 + P331 + P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/ doctor.  
P302 + P335 + P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P331 Do NOT induce vomiting.  
P363 Wash contaminated clothing before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391 Collect spillage.

**Storage:**

P402 + P404 Store in a dry place. Store in a closed container.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture  
CAS-No. : Not Assigned

**Components**

| Chemical name                                                   | CAS No./Unique ID | Concentration (% w/w) | Trade secret |
|-----------------------------------------------------------------|-------------------|-----------------------|--------------|
| Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich | -                 | $\geq 80 - \leq 100$  | TSC          |
| Butyllithium                                                    | 109-72-8*         | $\geq 7 - \leq 13$    | TSC          |

\* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

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### SECTION 4. FIRST AID MEASURES

General advice : First aiders need to protect themselves. Show this safety data sheet to the doctor in attendance.

If inhaled : After inhalation: fresh air. Call in physician.

In case of skin contact : In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact : After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed : After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Pulmonary failure possible after aspiration of vomit. Call a physician immediately. Do not attempt to neutralise.

|                                                             |                                                                                                                       |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Most important symptoms and effects, both acute and delayed | : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11 |
| Protection of first-aiders                                  | : For personal protection see section 8.                                                                              |
| Notes to physician                                          | : No data available                                                                                                   |

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## SECTION 5. FIREFIGHTING MEASURES

|                              |                                                   |
|------------------------------|---------------------------------------------------|
| Suitable extinguishing media | : Carbon dioxide (CO <sub>2</sub> )<br>Dry powder |
|------------------------------|---------------------------------------------------|

|                                |                 |
|--------------------------------|-----------------|
| Unsuitable extinguishing media | : Water<br>Foam |
|--------------------------------|-----------------|

|                                       |                                         |
|---------------------------------------|-----------------------------------------|
| Specific hazards during fire fighting | : Mixture with combustible ingredients. |
|---------------------------------------|-----------------------------------------|

Pay attention to flashback.

Vapours are heavier than air and may spread along floors.

May not get in touch with: Water

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

|                               |                 |
|-------------------------------|-----------------|
| Hazardous combustion products | : Carbon oxides |
|-------------------------------|-----------------|

Lithium oxides

|                                |                     |
|--------------------------------|---------------------|
| Specific extinguishing methods | : No data available |
|--------------------------------|---------------------|

|                     |                                                   |
|---------------------|---------------------------------------------------|
| Further information | : Remove container from danger zone and cool with |
|---------------------|---------------------------------------------------|

water.  
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel:  
Do not breathe vapours, aerosols.  
Avoid substance contact.  
Ensure adequate ventilation.  
Keep away from heat and sources of ignition.  
Evacuate the danger area, observe emergency procedures, consult an expert.  
Advice for emergency responders:  
For personal protection see section 8.

Environmental precautions : Do not let product enter drains.  
Risk of explosion.

Methods and materials for containment and cleaning up : Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations (see section 13).  
Do not flush with water.

Cover drains. Collect, bind, and pump off spills.  
Observe possible material restrictions (see sections 7 and 10).  
Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition.  
Take precautionary measures against static discharge.

Advice on safe handling : Work under hood. Do not inhale substance/mixture.  
Avoid generation of vapours/aerosols.

Keep workplace dry. Do not allow product to come into contact with water.

|                                           |                                                                                                                                                       |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Further information on storage conditions | : Tightly closed.<br>Keep away from heat and sources of ignition.<br>Keep locked up or in an area accessible only to qualified or authorised persons. |
| Materials to avoid                        | : Never allow product to get in contact with water during storage.                                                                                    |
| Storage class                             | : 4.2, Pyrophoric and self-heating hazardous materials                                                                                                |
| Recommended storage temperature           | : 36 - 46 °F / 2 - 8 °C                                                                                                                               |
| Further information on storage stability  | : Handle under nitrogen, protect from moisture.<br>Reacts violently with water.                                                                       |
| Packaging material                        | : Suitable material: Sure-Seal Bottles, Mild Steel Cylinder                                                                                           |

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

### Personal protective equipment

Respiratory protection : required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: : Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hand protection

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material                 | : Nitrile rubber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Break through time       | : 480 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Glove thickness          | : 0.4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Protective index         | : Full contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Manufacturer             | : Camatril® (KCL 730 / Aldrich Z677442, Size M)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Material                 | : Nitrile rubber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Break through time       | : 30 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Glove thickness          | : 0.2 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Protective index         | : Splash contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Manufacturer             | : Dermatril® P (KCL 743 / Aldrich Z677388, Size M)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Manufacturer             | : data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Remarks                  | : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.<br>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| Eye protection           | : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).<br>Tightly fitting safety goggles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Skin and body protection | : Flame retardant antistatic protective clothing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hygiene measures         | : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

|            |              |
|------------|--------------|
| Appearance | : liquid     |
| Color      | : colourless |

|                                                     |                                          |
|-----------------------------------------------------|------------------------------------------|
| Odor                                                | : No data available                      |
| Odor Threshold                                      | : No data available                      |
| pH                                                  | : No data available                      |
| Melting point                                       | : No data available                      |
| Boiling point/boiling range                         | : No data available                      |
| Flash point                                         | : -15 °F / -26 °C                        |
|                                                     | Method: closed cup                       |
| Evaporation rate                                    | : No data available                      |
| Flammability (solid, gas)                           | : No data available                      |
| Flammability (liquids)                              | : No data available                      |
| Burning rate                                        | : No data available                      |
| Upper explosion limit /<br>Upper flammability limit | : No data available                      |
| Lower explosion limit /<br>Lower flammability limit | : No data available                      |
| Vapor pressure                                      | : No data available                      |
| Relative vapour density                             | : No data available                      |
| Relative density                                    | : No data available                      |
| Density                                             | : 0.68 g/cm <sup>3</sup> (77 °F / 25 °C) |
| Water solubility                                    | : No data available                      |
| Partition coefficient: n-<br>octanol/water          | : No data available                      |
| Autoignition temperature                            | : No data available                      |
| Decomposition<br>temperature                        | : No data available                      |
| Viscosity, dynamic                                  | : No data available                      |
| Viscosity, kinematic                                | : No data available                      |
| Flow time                                           | : No data available                      |
| Explosive properties                                | : Not classified as explosive.           |

Aldrich - 186171

Page 9 of 17

Oxidizing properties : none  
Molecular weight : 64.06 g/mol  
Particle characteristics

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity : Vapours may form explosive mixture with air.

Chemical stability : Sensitive to air.  
sensitive to moisture

Possibility of hazardous reactions : No data available

Conditions to avoid : Exposure to air.  
  
Warming.  
  
Moisture.

Incompatible materials : Strong oxidizing agents  
Reacts violently with water.  
Chlorine  
Fluorine  
Perchlorates.

Hazardous decomposition products : In the event of fire: see section 5

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Mixture

##### Acute toxicity

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Acute toxicity estimate Dermal - 3,733 mg/kg  
(Calculation method)

##### Skin corrosion/irritation

Remarks: Mixture causes burns.

##### Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.  
Risk of blindness!

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**Reproductive toxicity**

Suspected of damaging the unborn child.

Suspected of damaging fertility.

**Specific target organ toxicity - single exposure**

Mixture may cause drowsiness or dizziness.

**Specific target organ toxicity - repeated exposure**

Mixture causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.

**11.2 Additional Information**

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Inhalation may provoke the following symptoms:, spasm, inflammation and edema of the bronchi, spasm, inflammation and edema of the larynx, Aspiration or inhalation may cause chemical pneumonitis., pulmonary edema, Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting., Lung irritation, chest pain, Gastrointestinal disturbance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Warning: contains n-hexane (CAS#110-54-3) a suspected neurotoxin., May cause nervous system disturbances. Other dangerous properties can not be excluded.

This substance should be handled with particular care.

Handle in accordance with good industrial hygiene and safety practice.

Liver - Irregularities - Based on Human Evidence

**Components****Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich****Acute toxicity**

LD50 Oral - Rat - male and female - 16,750 mg/kg

(OECD Test Guideline 401)

Symptoms: Nausea

Aldrich - 186171

Page 11 of 17

LC50 Inhalation - Rat - male - 259.35 mg/l - vapour  
(OECD Test Guideline 403)

Symptoms: Irritation symptoms in the respiratory tract., Inhalation may lead to the formation of oedemas in the respiratory tract.

LD50 Dermal - Rabbit - 3,350 mg/kg  
(OECD Test Guideline 402)

**Skin corrosion/irritation**

No data available

**Serious eye damage/eye irritation**

Remarks: Possible damages:  
Risk of corneal clouding.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

Suspected of damaging fertility.

**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. - Central nervous system

Acute oral toxicity - Nausea

Acute inhalation toxicity - Irritation symptoms in the respiratory tract., Inhalation may lead to the formation of oedemas in the respiratory tract.

**Specific target organ toxicity - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.

**Butyllithium**

**Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

Remarks: Causes skin irritation.  
(ECHA)

**Serious eye damage/eye irritation**

Remarks: Causes serious eye damage.

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Components:**

**Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich:**

**Ecotoxicology Assessment**

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

**Persistence and degradability****Components:**

**Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 98 %  
Exposure time: 28 d  
Remarks: (External MSDS)

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Components:****Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, n-hexane rich:**

Additional ecological information : Endangers drinking-water supplies if allowed to enter soil or water.

Discharge into the environment must be avoided.

**Endocrine disrupting properties**

No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

Not permitted for transport

**IMDG-Code**

UN number : UN 3394  
Proper shipping name : ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (Butyllithium, Hexanes, isomers)  
Class : 4.2  
Subsidiary risk : 4.3  
Packing group : I  
Labels : 4.2 (4.3)  
EmS Code : F-G, S-M  
Marine pollutant : yes

**Transport in bulk according to IMO instruments**

Not applicable for product as supplied.

**National Regulations****49 CFR**

UN/ID/NA number : UN 3394  
Proper shipping name : Organometallic substance, liquid, pyrophoric, water-reactive (Butyllithium, Hexanes, isomers)  
Class : 4.2  
Subsidiary risk : 4.3

Packing group : I  
Labels : Division 4.2 - Substances liable to spontaneous combustion, Division 4.3 - Substances which in contact with water emit flammable gases  
ERG Code : 135  
Marine pollutant : no  
Poison Inhalation Hazard : No

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Fire Hazard  
Reactivity Hazard  
Acute Health Hazard  
Chronic Health Hazard

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

### **US State Regulations**

#### **Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

#### **Pennsylvania Right To Know**

Butyllithium

109-72-8

#### **Maine Chemicals of High Concern**

Product does not contain any listed chemicals

#### **Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

#### **Washington Chemicals of High Concern**

Product does not contain any listed chemicals

#### **The components of this product are reported in the following inventories:**

US TSCA : Product contains substance(s) not listed on TSCA inventory.

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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## **SECTION 16. OTHER INFORMATION**

### **Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a

test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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