

Creation Date 21-May-2012

Revision Date 09-Feb-2024

Revision Number 9

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product Description: n-Hexyllithium, 33 wt.% solution in n-hexane  
Cat No. : 301650000; 301651000; 301658000

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

Recommended Use Laboratory chemicals.  
Uses advised against No Information available

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

#### Company

**EU entity/business name**  
Thermo Fisher Scientific  
Janssen Pharmaceuticaaan 3a, 2440 Geel, Belgium

**UK entity/business name**  
Fisher Scientific UK  
Bishop Meadow Road,  
Loughborough, Leicestershire LE11 5RG, United Kingdom

**Swiss distributor - Fisher Scientific AG**  
Neuhofstrasse 11, CH 4153 Reinach  
Tel: +41 (0) 56 618 41 11  
e-mail - infoch@thermofisher.com

E-mail address begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:  
Tox Info Suisse Emergency Number: **145 (24hr)**  
Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)  
Chemtrec (24h) Toll-Free: 0800 564 402  
Chemtrec Local: +41-43 508 20 11 (Zurich)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

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## Physical hazards

Flammable liquids  
Substances/mixtures which, in contact with water, emit flammable gases  
Pyrophoric liquids

Category 2 (H225)  
Category 1 (H260)  
Category 1 (H250)

## Health hazards

Aspiration Toxicity  
Skin Corrosion/Irritation  
Serious Eye Damage/Eye Irritation  
Reproductive Toxicity  
Specific target organ toxicity - (single exposure)  
Specific target organ toxicity - (repeated exposure)

Category 1 (H304)  
Category 1 A (H314)  
Category 1 (H318)  
Category 2 (H361f)  
Category 3 (H336)  
Category 2 (H373)

## Environmental hazards

Chronic aquatic toxicity

Category 2 (H411)

Full text of Hazard Statements: see section 16

## 2.2. Label elements



Signal Word

**Danger**

## Hazard Statements

H225 - Highly flammable liquid and vapor  
H250 - Catches fire spontaneously if exposed to air  
H260 - In contact with water releases flammable gases which may ignite spontaneously  
H304 - May be fatal if swallowed and enters airways  
H314 - Causes severe skin burns and eye damage  
H336 - May cause drowsiness or dizziness  
H361f - Suspected of damaging fertility  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects  
EUH014 - Reacts violently with water

## Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
P231 + P232 - Handle and store contents under inert gas. Protect from moisture  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P302 + P335 + P334 - IF ON SKIN: Brush off loose particles from skin. Immerse in cool water  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P310 - Immediately call a POISON CENTER or doctor/physician

## 2.3. Other hazards

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This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

| Component   | CAS No     | EC No     | Weight % | CLP Classification - Regulation (EC) No 1272/2008  |
|---|------------|-----------|----------|--|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | 927-510-4 | 67       | Flam. Liq. 2 (H225)<br>Skin Irrit. 2 (H315)<br>STOT SE 3 (H336)<br>STOT RE 2 (H373)<br>Repr. Cat 2 (H361f)<br>Asp. Tox. 1 (H304)<br>Aquatic Chronic 2 (H411) |
| n-Hexyllithium  | 21369-64-2 | 404-950-0 | 33       | Pyr. Sol. 1 (H250)<br>Water-react. 1 (H260)<br>Skin Corr. 1A (H314)<br>Eye Dam. 1 (H318)<br>(EUH014)   |

| Components   | Reach Registration Number |  |
|--|---------------------------|--|
| Hydrocarbons, C6, n-alkanes, isoalkanes, cyclics, 5-50% n-hexane | 01-2119474209-33          |  |
| n-Hexyllithium   | 01-0000015449-63          |  |

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

|   |   |
|---|---|
| <b>General Advice</b>                     | Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.   |
| <b>Eye Contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.   |
| <b>Skin Contact</b>                       | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.   |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Clean mouth with water. Never give anything by mouth to an unconscious person. Call a physician immediately. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.   |
| <b>Inhalation</b>                         | If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately. Risk of serious damage to the lungs (by aspiration). |
| <b>Self-Protection of the First Aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.  |

### 4.2. Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe

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damage to the delicate tissue and danger of perforation

## **4.3. Indication of any immediate medical attention and special treatment needed**

### **Notes to Physician**

Treat symptomatically. Symptoms may be delayed.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Suitable Extinguishing Media**

Dry sodium chloride. Limestone powder. Dry chemical. approved class D extinguishers. Water mist may be used to cool closed containers.

#### **Extinguishing media which must not be used for safety reasons**

Water. Carbon dioxide (CO<sub>2</sub>). Foam.

### **5.2. Special hazards arising from the substance or mixture**

Flammable. Reacts violently with water. The product causes burns of eyes, skin and mucous membranes. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

#### **Hazardous Combustion Products**

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Lithium oxide.

### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Take precautionary measures against static discharges.

### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and material for containment and cleaning up**

Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Do not expose spill to water. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### **6.4. Reference to other sections**

Refer to protective measures listed in Sections 8 and 13.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance. Do not allow contact with water. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

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## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

## 7.2. Conditions for safe storage, including any incompatibilities

Refrigerator/flammables. Keep under nitrogen. Keep away from water or moist air. Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place.

## Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Storage Class/LGK 4.2

## Switzerland - Storage of hazardous substances

Storage class - SC 4.2

<https://www.kvu.ch/de/themen/stoffe-und-produkte>

<https://www.kvu.ch/fr/themes/substances-et-produits>

<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

## 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority.

| Component   | European Union                       | The United Kingdom | France | Belgium | Spain |
|---|--------------------------------------|--------------------|--------|---------|-------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | (TWA): 50 ppm, 150 mg/m <sup>3</sup> | (TWA): 50 ppm      |        |         |       |

| Component      | Italy | Germany  | Portugal | The Netherlands | Finland |
|----------------|-------|--|----------|-----------------|---------|
| n-Hexyllithium |       | TWA: 0.2 mg/m <sup>3</sup> (8 Stunden). MAK inorganic compounds, except Lithium and strong irritant Lithium compounds such as Lithium amide, Lithium hydride, Lithium hydroxide, Lithium nitride, Lithium oxide, Lithium tetrahydroaluminate, Lithium tetrahydroborate |          |                 |         |

| Component   | Austria | Denmark | Switzerland | Poland   | Norway |
|---|---------|---------|-------------|--|--------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) |         |         |             | STEL: 1500 mg/m <sup>3</sup> 15 minutach<br>TWA: 500 mg/m <sup>3</sup> 8 godzinach |        |

#### Biological limit values

List source(s):

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## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

| Component   | Acute effects local<br>(Inhalation) | Acute effects<br>systemic (Inhalation) | Chronic effects local<br>(Inhalation) | Chronic effects<br>systemic (Inhalation) |
|---|-------------------------------------|--|---------------------------------------|--|
| Hydrocarbons, C6, isoalkanes <<br>5% n-hexane (Iso-Hexane)<br>64742-49-0 ( 67 ) | DNEL = 1066.67mg/m <sup>3</sup>     | DNEL = 1286.4mg/m <sup>3</sup>         | DNEL = 837.5mg/m <sup>3</sup>         |  |

## Predicted No Effect Concentration (PNEC)

No information available.

## 8.2. Exposure controls

### Engineering Measures

Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

#### Eye Protection

Goggles (European standard - EN 166)

#### Hand Protection

Protective gloves

| Glove material              | Breakthrough time                    | Glove thickness | EU standard | Glove comments        |
|-----------------------------|--------------------------------------|-----------------|-------------|-----------------------|
| Nitrile rubber<br>Viton (R) | See manufacturers<br>recommendations | -               | EN 374      | (minimum requirement) |

#### Skin and body protection

Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

#### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type:** low boiling organic solvent Type AX Brown conforming to EN371 or Organic gases and vapours filter Type A Brown conforming to EN14387

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|  |   |
|--|---|
| <b>Small scale/Laboratory use</b>      | Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.<br><b>Recommended half mask:-</b> Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141<br>When RPE is used a face piece Fit Test should be conducted |
| <b>Environmental exposure controls</b> | Prevent product from entering drains. Do not allow material to contaminate ground water system.   |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|  |                          |                                       |
|--|--------------------------|---------------------------------------|
| <b>Physical State</b>                          | Liquid                   |                                       |
| <b>Appearance</b>                              | light orange             |                                       |
| <b>Odor</b>                                    | Petroleum distillates    |                                       |
| <b>Odor Threshold</b>                          | No data available        |                                       |
| <b>Melting Point/Range</b>                     | No data available        |                                       |
| <b>Softening Point</b>                         | No data available        |                                       |
| <b>Boiling Point/Range</b>                     | No information available |                                       |
| <b>Flammability (liquid)</b>                   | Highly flammable         | On basis of test data                 |
| <b>Flammability (solid,gas)</b>                | Not applicable           | Liquid                                |
| <b>Explosion Limits</b>                        | No data available        |                                       |
| <b>Flash Point</b>                             | -26 °C / -14.8 °F        | <b>Method -</b> (based on components) |
| <b>Autoignition Temperature</b>                | No data available        |                                       |
| <b>Decomposition Temperature</b>               | No data available        |                                       |
| <b>pH</b>                                      | No information available |                                       |
| <b>Viscosity</b>                               | No data available        |                                       |
| <b>Water Solubility</b>                        | vigorous reaction        |                                       |
| <b>Solubility in other solvents</b>            | No information available |                                       |
| <b>Partition Coefficient (n-octanol/water)</b> |                          |                                       |
| <b>Vapor Pressure</b>                          | 151 mmHg @ 25 °C         |                                       |
| <b>Density / Specific Gravity</b>              | 0.690                    |                                       |
| <b>Bulk Density</b>                            | Not applicable           | Liquid                                |
| <b>Vapor Density</b>                           | 3                        | (Air = 1.0)                           |
| <b>Particle characteristics</b>                | Not applicable (liquid)  |                                       |

### 9.2. Other information

|   |   |
|---|---|
| <b>Explosive Properties</b>   | Vapors may form explosive mixtures with air |
| <b>Substances/mixtures which, in contact with water, emit flammable gases</b> | Emitted gas ignites spontaneously           |

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Yes

### 10.2. Chemical stability

Reacts violently with water. Moisture sensitive. Air sensitive. Pyrophoric: Spontaneously flammable in air.

### 10.3. Possibility of hazardous reactions

|                                 |  |
|---------------------------------|--|
| <b>Hazardous Polymerization</b> | No information available.                                  |
| <b>Hazardous Reactions</b>      | None under normal processing. Reacts violently with water. |

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## 10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Exposure to air. Incompatible products. Exposure to moist air or water. Exposure to moisture.

## 10.5. Incompatible materials

Acids. Water. Alcohols. Amines. Halogens. Chlorine. Fluorine. Carbon dioxide (CO<sub>2</sub>).

## 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Lithium oxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Product Information

No acute toxicity information is available for this product

#### (a) acute toxicity;

Oral

Based on available data, the classification criteria are not met

Dermal

Based on available data, the classification criteria are not met

Inhalation

Based on available data, the classification criteria are not met

#### Toxicology data for the components

| Component   | LD50 Oral          | LD50 Dermal           | LC50 Inhalation            |
|---|--------------------|-----------------------|----------------------------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | > 5000 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | LC50 = 73680 ppm (Rat) 4 h |

#### (b) skin corrosion/irritation;

Category 1 A

#### (c) serious eye damage/irritation;

Category 1

#### (d) respiratory or skin sensitization;

Respiratory

No data available

Skin

No data available

#### (e) germ cell mutagenicity;

No data available

#### (f) carcinogenicity;

No data available

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component   | EU           | UK | Germany | IARC |
|---|--------------|----|---------|------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | Carc Cat. 1B |    |         |      |

#### (g) reproductive toxicity;

Category 2

#### (h) STOT-single exposure;

Category 3

Results / Target organs

Central nervous system (CNS).

#### (i) STOT-repeated exposure;

Category 2

Target Organs

Central nervous system (CNS), Peripheral Nervous System (PNS).

#### (j) aspiration hazard;

Category 1



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**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Symptoms / effects, both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component  | Freshwater Fish  | Water Flea | Freshwater Algae |
|--|--|------------|------------------|
| Hydrocarbons, C6, isoalkanes < 5%<br>n-hexane (Iso-Hexane) | LC50: = 8.41 mg/L, 96h<br>semi-static, closed<br>(Oncorhynchus mykiss) |            |                  |

### 12.2. Persistence and degradability

#### Persistence

Soluble in water, Persistence is unlikely, based on information available.

#### Degradation in sewage treatment plant

Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

### 12.4. Mobility in soil

No information available Highly mobile in soils

### 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Endocrine disrupting properties

#### Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

### 12.7. Other adverse effects

#### Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from Residues/Unused Products

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

#### Contaminated Packaging

Dispose of this container to hazardous or special waste collection point. Empty containers

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retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**European Waste Catalogue (EWC)** According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

**Other Information** Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. Do not let this chemical enter the environment.

**Switzerland - Waste Ordinance** Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600  
<https://www.fedlex.admin.ch/eli/cc/2015/891/en>

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

**14.1. UN number** UN3394  
**14.2. UN proper shipping name** ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE  
**Technical Shipping Name** n-Hexyllithium, 2.5M (33 wt.%) solution in hexane  
**14.3. Transport hazard class(es)** 4.2  
**Subsidiary Hazard Class** 4.3  
**14.4. Packing group** I

### ADR

**14.1. UN number** UN3394  
**14.2. UN proper shipping name** ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE  
**Technical Shipping Name** n-Hexyllithium, 2.5M (33 wt.%) solution in hexane  
**14.3. Transport hazard class(es)** 4.2  
**Subsidiary Hazard Class** 4.3  
**14.4. Packing group** I

### IATA

FORBIDDEN FOR IATA TRANSPORT

**14.1. UN number** UN3394  
**14.2. UN proper shipping name** ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE  
**Technical Shipping Name** FORBIDDEN FOR IATA TRANSPORT  
**14.3. Transport hazard class(es)** n-Hexyllithium, 2.5M (33 wt.%) solution in hexane  
**Subsidiary Hazard Class** 4.2  
**14.4. Packing group** 4.3  
I

**14.5. Environmental hazards** Dangerous for the environment  
Product is a marine pollutant according to the criteria set by IMDG/IMO

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia

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(AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component   | CAS No     | EINECS    | ELINCS    | NLP | IECSC | TCSI | KECL            | ENCS | ISHL |
|---|------------|-----------|-----------|-----|-------|------|-----------------|------|------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | 927-292-5 | -         | -   | x     | X    | x               | x    | -    |
| n-Hexyllithium  | 21369-64-2 | -         | 404-950-0 | -   | -     | X    | 2015-3-64<br>22 | -    | -    |

| Component   | CAS No     | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|------------|------|---|-----|------|------|-------|-------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | T    | ACTIVE  | x   | -    | x    | X     | x     |
| n-Hexyllithium  | 21369-64-2 | X    | ACTIVE  | -   | X    | -    | -     | -     |

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

## Authorisation/Restrictions according to EU REACH

| Component   | CAS No     | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances  | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|------------|---|--|---|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | -   | Use restricted. See item 28.<br>(see link for restriction details)<br>Use restricted. See item 29.<br>(see link for restriction details)<br>Use restricted. See item 75.<br>(see link for restriction details) | -   |
| n-Hexyllithium  | 21369-64-2 | -   | Use restricted. See item 75.<br>(see link for restriction details)   | -   |

## REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

## Seveso III Directive (2012/18/EC)

| Component   | CAS No     | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---|------------|---|--|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | 64742-49-0 | Not applicable  | Not applicable   |
| n-Hexyllithium  | 21369-64-2 | Not applicable  | Not applicable   |

## Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

## Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Take note of Directive 94/33/EC on the protection of young people at work

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Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

## National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** Water endangering class = 2 (self classification)

| Component   | Germany - Water Classification (AwSV) | Germany - TA-Luft Class |
|---|---------------------------------------|-------------------------|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | WGK2                                  |                         |
| n-Hexyllithium  | WGK2                                  |                         |

| Component   | France - INRS (Tables of occupational diseases)      |
|---|--|
| Hydrocarbons, C6, isoalkanes < 5% n-hexane (Iso-Hexane) | Tableaux des maladies professionnelles (TMP) - RG 84 |

## Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

## 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H225 - Highly flammable liquid and vapor  
H250 - Catches fire spontaneously if exposed to air  
H260 - In contact with water releases flammable gases which may ignite spontaneously  
H304 - May be fatal if swallowed and enters airways  
H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H318 - Causes serious eye damage  
H336 - May cause drowsiness or dizziness  
H361f - Suspected of damaging fertility  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects  
EUH014 - Reacts violently with water

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer  
Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

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**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

## Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (volatile organic compound)

## Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Fire prevention and fighting, identifying hazards and risks, static electricity, explosive atmospheres posed by vapours and dusts.

Chemical incident response training.

**Creation Date** 21-May-2012

**Revision Date** 09-Feb-2024

**Revision Summary** Not applicable.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No  
1907/2006 .**

**For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2,  
Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and  
Preparations).**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**