

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Lithium diisopropylamide

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008  
Pyrophoric solids (Category 1)  
Substances, which in contact with water, emit flammable gases (Category 1)  
Skin corrosion (Category 1C)  
Reproductive toxicity (Category 2)

According to European Directive 67/548/EEC as amended.  
Possible risk of impaired fertility. Possible risk of harm to the unborn child. Reacts violently with water, liberating extremely flammable gases. Spontaneously flammable in air. Causes burns.

Label elements

Pictogram



Signal word DangerDanger

Hazard statement(s)

H250 Catches fire spontaneously if exposed to air.  
H260 In contact with water releases flammable gases which may ignite spontaneously.

H314 Causes severe skin burns and eye damage.  
H361 Suspected of damaging fertility or the unborn child.

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EUH014 Reacts violently with water.

Precautionary statement(s)

P222 Do not allow contact with air.  
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231 + P232 Handle under inert gas. Protect from moisture.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P222 Do not allow contact with air.  
P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231 + P232 Handle under inert gas. Protect from moisture.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

P422 Store contents under inert gas.

Hazard symbol(s)

F Highly flammable  
C Corrosive

R-phrases(s)

R62 Possible risk of impaired fertility.  
R63 Possible risk of harm to the unborn child.

R14/15 Reacts violently with water, liberating extremely flammable gases.  
R17 Spontaneously flammable in air.

R34 Causes burns.  
S16 Keep away from sources of ignition - No smoking.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.  
S43 In case of fire, use sand.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : LDA

Formula : C6H14LiN

Molecular Weight : 107,12 g/mol

CAS-No.	EC-No.	Classification	Concentration
<b>Lithium diisopropylamide</b> 4111-54-0	223-893-0	-	-

Pyrophoric solid 1; Water-react 1; Skin Corr. 1C; Repr. 2; H250, H260, H314, H361

F, C, R62 - R63 - R14/15 - R17 - R34

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2) Dry powder

Extinguishing media which shall not be used for safety reasons

Water

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Do not flush with water. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.  
Air sensitive. Moisture sensitive. Handle and store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid

Safety data

pH no data available  
Melting point no data available  
Boiling point no data available  
Flash point -12 °C - closed cup  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Density 0,864 g/mL at 25 °C  
Water solubility no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Reacts violently with water.

Conditions to avoid

Heat, flames and sparks. Exposure to moisture.

Materials to avoid

acids, Strong oxidizing agents, Water

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Lithium oxides

11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

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.

Reproductive toxicity

Lithium and its compounds are possible teratogens by analogy to lithium carbonate which has equivocal human teratogenic data and positive animal teratogenic data.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

**Inhalation** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Ingestion** May be harmful if swallowed. Causes burns.

**Skin** May be harmful if absorbed through skin. Causes skin burns.

**Eyes** Causes eye burns.

Signs and Symptoms of Exposure

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, Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting., Large doses of lithium ion have caused dizziness and prostration, and can cause kidney damage if sodium intake is limited. Dehydration, weight loss, dermatological effects, and thyroid disturbances have been reported. Central nervous system effects that include slurred speech, blurred vision, sensory loss, ataxia, and convulsions may occur. Diarrhea, vomiting, and neuromuscular effects such as tremor, clonus, and hyperactive reflexes may occur as a result of repeated exposure to lithium ion.

Additional Information

RTECS: no data available

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 3393 Class: 4.2 (4.3) Packing group: 1  
Proper shipping name: ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE (Lithium diisopropylamide)

IMDG

UN-Number: 3393 Class: 4.2 (4.3) Packing group: 1 EMS-No: F-G, S-M  
Proper shipping name: ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE (Lithium diisopropylamide)

Marine pollutant: No

IATA

UN-Number: 3393 Class: 4.2 (4.3)  
Proper shipping name: Organometallic substance, solid, pyrophoric, water-reactive (Lithium diisopropylamide)  
IATA Passenger: Not permitted for transport  
IATA Cargo: Not permitted for transport

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

Text of H-code(s) and R-phrases(s) mentioned in Section 3

H250 Catches fire spontaneously if exposed to air.  
H260 In contact with water releases flammable gases which may ignite spontaneously.

H314 Causes severe skin burns and eye damage.  
H361 Suspected of damaging fertility or the unborn child.

Pyrophoric solid Pyrophoric solids  
Repr. Reproductive toxicity  
Skin Corr. Skin corrosion

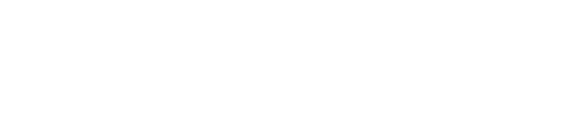
Water-react Substances, which in contact with water, emit flammable gases  
C Corrosive  
F Highly flammable

R14/15 Reacts violently with water, liberating extremely flammable gases.  
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R34 Causes burns.

R62 Possible risk of impaired fertility.  
R63 Possible risk of harm to the unborn child.

Further information

For R&D use only. Not for drug, household or other uses.



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WARRANTY:

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