

Material Safety Data Sheet

Lithium Deuteride, 99 Atom % D

ACC# 92830

Section 1 - Chemical Product and Company Identification

MSDS Name: Lithium Deuteride, 99 Atom % D

Catalog Numbers: AC206210000, AC206210020, AC206210100

Synonyms: LiD.

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
13587-16-1	Lithium Deuteride, 99 Atom % D		237-018-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: grey crystals.

Danger! Reacts violently and/or explosively with water, steam or moisture. Dangerous when wet. May ignite or explode on contact with moist air. Causes eye and skin irritation. May cause respiratory and digestive tract irritation. May cause central nervous system depression. May cause kidney damage. Hygroscopic (absorbs moisture from the air). The toxicological properties of this material have not been fully investigated.

Target Organs: Kidneys, central nervous system.

Potential Health Effects

Eye: When substance becomes wet or comes in contact with moisture of the mucous membranes, it will cause irritation.

Skin: Contact with skin causes irritation and possible burns, especially if the skin is wet or moist.

Ingestion: May cause irritation of the digestive tract. May cause kidney damage. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause kidney damage. Inhalation at high concentrations may cause CNS depression and asphyxiation.

Chronic: May cause kidney damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Do NOT allow victim to rub eyes or keep eyes closed.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If water-reactive products are embedded in the skin, no water should be applied. The embedded products should be covered with a light oil.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Reacts violently with water giving off flammable gas which may explode. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Water Reactive. Material will react with water and may release a flammable and/or toxic gas. May ignite or explode on contact with steam or moist air. May re-ignite after fire is extinguished.

Extinguishing Media: DO NOT USE WATER! Do NOT get water inside containers. Contact professional fire-fighters immediately. For large fires, use dry sand, dry chemical, soda ash or lime or withdraw from area and let fire burn. For small fires, use dry chemical, soda ash, lime or dry sand.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 2

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Provide ventilation. Do not expose spill to water.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not allow water to get into the container because of violent reaction. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Do not allow contact with water. Use only in a chemical fume hood. Keep from contact with moist air and steam.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from water. Water free area. Store protected from moisture.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Lithium Deuteride, 99 Atom % D	none listed	none listed	none listed

OSHA Vacated PELs: Lithium Deuteride, 99 Atom % D: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystals

Appearance: grey

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 680 deg C

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: .8200g/cm3

Molecular Formula: DLi

Molecular Weight: 8.96

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Combines vigorously or explosively with water.

Conditions to Avoid: Incompatible materials, strong oxidants, exposure to moist air or water.

Incompatibilities with Other Materials: Oxidizing agents, acids, alcohols, moisture, water.

Hazardous Decomposition Products: Irritating and toxic fumes and gases, hydrogen gas.

Hazardous Polymerization: Has not been reported

Section 11 - Toxicological Information

RTECS#:

CAS# 13587-16-1 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 13587-16-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	LITHIUM HYDRIDE	No information available.
Hazard Class:	4.3	
UN Number:	UN1414	
Packing Group:	I	

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 13587-16-1 is not listed on the TSCA inventory. It is for research and development use only.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 13587-16-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

F

Risk Phrases:

R 15 Contact with water liberates extremely flammable gases.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 7/8 Keep container tightly closed and dry.

S 43A In case of fire, use dry chemical (never use water).

WGK (Water Danger/Protection)

CAS# 13587-16-1: No information available.

Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

Canada - WHMIS

This product has a WHMIS classification of F, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all

of the information required by those regulations.

Canadian Ingredient Disclosure List

Section 16 - Additional Information
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MSDS Creation Date: 9/02/1997

Revision #7 Date: 10/03/2005

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