


LITHIUM HYDRIDE		ICSC: 0813	
Date of peer-review: April 2000			
CAS #	7580-67-8	LiH	
RTECS #	OJ6300000	Molecular mass: 7.95	
UN #	1414		
EC #			
TYPES OF HAZARD / EXPOSURE	ACUTE HAZARDS / SYMPTOMS	PREVENTION	FIRST AID / FIRE FIGHTING
FIRE	Combustible. Gives off irritating or toxic fumes (or gases) in a fire. Many reactions may cause fire or explosion.	NO open flames.	Inert gas, special powder, dry sand, NO other agents. NO hydrous agents.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	
EXPOSURE		PREVENT DISPERSION OF DUST! STRICT HYGIENE!	
Inhalation	Cough. Nausea. Vomiting. Confusion. Laboured breathing. Burning sensation. Shortness of breath. Sore throat. Symptoms may be delayed (see Notes).	Local exhaust or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
Skin	Redness. Skin burns. Blisters. Pain.	Protective gloves.	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes	Redness. Severe deep burns. Pain. Blurred vision.	Face shield, or eye protection in combination with breathing protection if powder.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Dizziness. Diarrhoea. Abdominal pain. Burning sensation. Shock or collapse. Tremors. Twitching. (Further see Inhalation).	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.
SPILLAGE DISPOSAL		PACKAGING & LABELLING	

Do NOT wash away into sewer. Sweep spilled substance into containers. Carefully collect remainder, then remove to safe place. Chemical protection suit including self-contained breathing apparatus.	Airtight. Unbreakable packaging; put breakable packaging into closed unbreakable container. EU Classification UN Classification UN Hazard Class: 4.3 UN Pack Group: I
EMERGENCY RESPONSE	STORAGE
Transport Emergency Card: TEC (R)-43G04 NFPA Code: H3; F4; R2; W	Separated from strong oxidants. Dry. Keep under inert gas.
 <p>Prepared in the context of cooperation between the International Programme on Chemical Safety and the Commission of the European Communities © IPCS, CEC 2001</p> <p>SEE IMPORTANT INFORMATION ON BACK</p>	

LITHIUM HYDRIDE	ICSC: 0813
IMPORTANT DATA	
<p>PHYSICAL STATE; APPEARANCE: ODOURLESS WHITE TO GREYISH HYGROSCOPIC SOLID IN VARIOUS FORMS. TURNS DARK ON EXPOSURE TO LIGHT.</p> <p>PHYSICAL DANGERS: Dust explosion possible if in powder or granular form, mixed with air.</p> <p>CHEMICAL DANGERS: The substance may spontaneously ignite on contact with air. Reacts violently with oxidants halogenated hydrocarbons, acids and water forming flammable/explosive gas (hydrogen - see ICSC0001) and, in the case of water, lithium hydroxide which is very caustic. On contact with hot surfaces or flames this substance decomposes forming irritating alkali fumes.</p> <p>OCCUPATIONAL EXPOSURE LIMITS: TLV: 0.025 mg/m³ (as TWA) (ACGIH 1999). MAK: 0.025 mg/m³; (1999)</p>	<p>ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.</p> <p>INHALATION RISK: Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.</p> <p>EFFECTS OF SHORT-TERM EXPOSURE: The substance is corrosive to the eyes the skin and the respiratory tract. Inhalation of the aerosol may cause lung oedema (see Notes).</p>
PHYSICAL PROPERTIES	
Decomposes below boiling point at 850°C Melting point: 680°C Relative density (water = 1): 0.76-0.77 Solubility in water: reaction	Auto-ignition temperature: 200°C Explosive limits, vol% in air: see Notes
ENVIRONMENTAL DATA	
NOTES	
Reacts violently with fire extinguishing agents such as water, carbon dioxide, foam or halogenated	

compounds such as carbon tetrachloride. The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation are therefore essential. Immediate administration of an appropriate spray, by a doctor or a person authorized by him/her, should be considered. Do NOT take working clothes home.

ADDITIONAL INFORMATION

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See Also:

[Toxicological Abbreviations](#)

