CIL

CAMBRIDGE ISOTOPE LABORATORIES
50 Frontage Road, Andover, Massachusetts

Material Safety Data Sheet

PLEASE NOTE: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally unavailable, but are assumed to be similar or identical to the corresponding unlabeled compound. While the information contained is believed to be accurate, it does not claim to be all inclusive, and should be used only as a guide. CIL, Inc., extends no warranties with respect hereto and disclaims all liabilities from reliance thereon. Judgments as to the suitability of the data presented with respect to the use of the product are the responsibility of the purchaser and intended user.

Section 1 Chemical Product and Company Identification

Label		CATALOG NO
Lithium-7 Metal	**(7Li)**	**LLM-828**

Manufacturer's Name	**Emergency Telephone No.**	**Emergency Telephone No.**
Cambridge Isotope Laboratories, Inc.	**USA: 1-800-424-9300**	**INT: 1-202-483-7616**
50 Frontage Road	USA, for Information:	International, for Information:
Andover, MA 10810	(800) 322-1174	(508) 749-8000
USA	(508) 749-8000	

Date Prepared: 29-Dec-99 Supersedes: All previous.

Section 2 - Hazard. Ingredients/Identity Information RTECS No.: OJ5540000 Lithium

Hazardous Components (Specific Chemical Identity; Common Names)

Chemical Names	CAS Number	OSHA PEL	ACGIH TLV
Lithium-7 Metal	13982-05-3	Not available.	Not available.

Lithium Metal (DOT)
UN 1415 (DOT)

Section 3. Hazard Identification.

Appearance:	Silvery white metal.
Potential health effects:	Causes burns. Destructive to tissue.
Routes of Entry:	Eyes, skin, ingestion.
Symptoms of exposure:	Irritation, burns.
Target organs:	Kidneys, skin, respiratory tract.
Warnings:	Flammable solid. Moisture sensitive.

Section 4. First Aid Measures.

Eyes: On contact, immediately flush eyes with lots of water for at least 15 minutes.
Eyes: (Separate eyelids with fingers when flushing.)
Inhaled: If inhaled, move person to fresh air.
Breathing: If breathing is difficult, give oxygen.
Breathing: If not breathing, give artificial respiration.
Swallowed: If swallowed and conscious, wash out mouth with water. Call a physician.

Section 5. Fire-Fighting Measures.

Extinguishing Media:	Smother with dry sand, dry limestone, or dry clay.		
Methods and cautions:	Approved class D extinguisher. Do not use water or Carbon Dioxide on this material. Wear self-contained breathing apparatus and protective clothing.		
Flammable LEL:	Not available.	Flammable UEL:	Not available.

Section 6. Accidental Release Measures.

Evacuate area.
Shut off all sources of ignition.
Cover with dry lime, sand, soda ash in covered container.

Hygiene warning:	Wash thoroughly after handling.
Respiratory protection:	Wear appropriate NIOSH/MSHA approved respirator.

Section 7. Handling and Storage.

General warning:	Flammable solid. Moisture sensitive.
Handling procedures:	Air sensitive; no water contact; keep tightly closed.
Storage procedures:	Store under mineral oil or other liquid free from water or moisture.
Hygiene instructions:	Wash thoroughly after handling.
Other:	Handle and store under Argon.

Section 8. Exposure Controls and Personal Protection.

General controls:	Keep away from sources of ignition and air and water. Use non-sparking tools.
Eye/face protection:	Chemical safety goggles.
Skin Protection:	Wear suitable protective clothing.
Respiratory protection:	Wear appropriate NIOSH/MSHA approved respirator.

Section 9- Physical/Chemical Characteristics.

Molecular weight:	Varies with actual enrichment	Autoignition temperature:	Not available.
Appearance:	Silvery white metal.	Flash point/Method:	Not available.
Odor:	Odorless	Melting point:	180.54
Physical state:	Solid.	Boiling point:	1317°C
pH:	Not available.	Freezing point:	Not available.
Vapor pressure:	1mm@723°C		
Vapor density:	Not available.		
Solubility in water:	Not available.		
Specific gravity/density:	0.0534@25°C		

Section 10- Stability and Reactivity

Chemical stability:	Unstable under certain conditions.
Conditions to Avoid:	Contact with water, moisture.
Incompatibility:	Iron, iron salts, phosphorus, sulfur, nickel and its alloys.
Hazardous Decomposition:	Not available.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Not available.

Section 11. Toxicological Information (see Section 3 on first page).

Acute data: Harmful by inhalation, ingestion, skin absorption.
Extremely destructive to tissue of mucous membranes, upper respiratory tract, eyes, and skin.
Causes burns.

Chronic Data: Toxicological properties have not been fully investigated, to the best of our knowledge.

Section 12. Ecological Information (impact if released into environment).
EPA TSCA Chemical Inventory, July, 1992.

Section 13. Disposal considerations.
Under inert atmosphere, cautiously add material to dry butanol in appropriate solvent.
The chemical reaction may be vigorous and/or exothermic.
Filter off solid residues for disposal. Burn liquid portion in chemical incinerator with afterburner and scrubber.

Section 14. Transport Information.
Flammable solid. Corrosive material.

Section 15. Regulatory Information.
NIOSCH Analytical Methods: see elements (ICP) 7300.

Section 16. Other Information.
Argon should be used as an inert atmosphere for lithium metal reactions.