
MATERIAL SAFETY DATA SHEET

HELENA LABORATORIES
1530 Lindbergh Dr./P.O. Box 752
Beaumont, TX 77704-0752
USA Toll Free 800-231-5663

DATE PREPARED: 9/13/2010
REVISION: 4

1. IDENTIFICATION:

PRODUCT NAME: REP LD-16 ISOENZYME KIT PART 1 OF 2

PRODUCT NO.: 3076

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2. INGREDIENTS (THE ABOVE KIT CONTAINS THE FOLLOWING ITEMS) :

Table with 3 columns: PRODUCT NUMBER, PRODUCT IDENTIFICATION (LABEL NAME), COMMENTS. Row 1: 500974, REP LD-16 GEL, NON-HAZARDOUS

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1. IDENTIFICATION:

PRODUCT NAME: REP LD-16 REAGENT KIT PART 2 OF 2

PRODUCT NO: 500975

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2. INGREDIENTS (THE ABOVE KIT CONTAINS THE FOLLOWING ITEMS) :

Table with 3 columns: PRODUCT NUMBER, PRODUCT IDENTIFICATION (LABEL NAME), COMMENTS. Includes rows for 500822 (REP LD DILUENT, NON-HAZARDOUS) and 500976 (REP LD-16 REAGENT). A sub-table below lists hazardous ingredients: L-LACTIC ACID LITHIUM, CAS # 27848-80-2, 90.0%, MSDS ATTACHED.

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ATTACHED IS THE MSDS FOR THE ABOVE NAMED HAZARDOUS INGREDIENT.

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1. IDENTIFICATION:

NAME: L-LACTIC ACID LITHIUM

CAS #: 27848-80-2

MOLECULAR FORMULA: C3H5LiO3

MOLECULAR WEIGHT: 96.0

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2. CHEMICAL COMPOSITION:

CHEMICAL NAME/COMMON NAME	CAS #	%	EXPOSURE LIMITS	
			OSHA PEL	ACGIH TLV
L-LACTIC ACID LITHIUM	27848-80-2	100%	10 mg/m ³	NIF

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NA = Not Applicable

NE = Not Established

NL = Not Listed

NIF = No Information Found

3. HAZARD IDENTIFICATION:

EMERGENCY OVERVIEW:

MAY BE IRRITATING TO THE SKIN, EYES AND UPPER RESPIRATORY TRACT.
MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION? X SKIN? X INGESTION? X

ACUTE EFFECT OF OVEREXPOSURE:

EYES: DIRECT CONTACT MAY CAUSE IRRITATION, REDNESS, TEARING AND
BLURRED VISION.

SKIN: THIS MATERIAL MAY CAUSE SKIN IRRITATION. REDDENING, ITCHING
AND INFLAMMATION MAY RESULT.
MAY BE ABSORBED THROUGH THE SKIN.

INHALATION: MAY CAUSE IRRITATION TO THE RESPIRATORY TRACT.
THIS MATERIAL MAY CAUSE INJURY OR ILLNESS IF INHALED.

INGESTION: IF INGESTED, THIS MATERIAL MAY CAUSE IRRITATION TO THE MOUTH,
THROAT AND GASTROINTESTINAL TRACT.
MAY BE HARMFUL IF SWALLOWED.

CHRONIC EFFECTS OF EXPOSURE:

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4. FIRST AID MEASURES:

EYE CONTACT: FLUSH IMMEDIATELY WITH LARGE AMOUNTS OF WATER FOR AT LEAST
15 MINUTES. EYELIDS SHOULD BE HELD AWAY FROM THE EYEBALL TO ENSURE
THOROUGH RINSING.

SKIN CONTACT: IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15
MINUTES, WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. CONTAMINATED
CLOTHING MUST BE LAUNDERED BEFORE REUSE.

INHALATION: SAFELY REMOVE VICTIM TO FRESH AIR. IF NOT BREATHING,
INSTITUTE ARTIFICIAL/RESCUE BREATHING. IF BREATHING IS DIFFICULT, ENSURE
CLEAR AIRWAY AND GIVE OXYGEN.

INGESTION: IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS
CONSCIOUS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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5. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT (METHOD USED): NA

FLAMMABLE LIMITS: NA LEL UEL

EXTINGUISHING MEDIA: USE A DRY CHEMICAL, ALCOHOL FOAM, ALL PURPOSE
FOAM OR CARBON DIOXIDE TO EXTINGUISH FIRE.

5. FIRE AND EXPLOSION HAZARD DATA (cont):

SPECIAL FIRE FIGHTING PROCEDURES: AS IN ANY FIRE, WEAR SELF-
CONTAINED BREATHING APPARATUS PRESSURE-DEMAND, (MSHA/NIOSH) APPROVED

MSDS: L-LACTIC ACID LITHIUM Page 5 of 7
OR EQUIVALENT) AND FULL PROTECTIVE GEAR. EVACUATE THE AREA AND FIGHT
FIRE FROM A SAFE DISTANCE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: EMITS TOXIC FUMES UNDER FIRE
CONDITIONS.

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6. SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

VACUUM OR SWEEP UP MATERIAL AND PLACE IN A DISPOSAL CONTAINER. CLEAN
UP SPILLS IMMEDIATELY UNDER QUALIFIED SUPERVISION OBSERVING
PRECAUTIONS IN PROTECTIVE EQUIPMENT SECTION. AVOID CLEAN UP
PROCEDURES THAT GENERATE DUST OR RESULT IN WATER POLLUTION.

AFTER REMOVAL, SCRUB THE CONTAMINATED AREA WITH DETERGENT AND FLUSH
THOROUGHLY WITH WATER. ABSORB WASH LIQUID AND PLACE IN THE DISPOSABLE
CONTAINER. DO NOT FLUSH TO SEWER. AVOID RUNOFF INTO STORM SEWERS AND
DITCHES WHICH LEAD TO WATERWAYS.

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7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

DO NOT GET IN EYES, ON SKIN OR CLOTHING.
MINIMIZE DUST GENERATION DURING HANDLING AND CONTACT.
WASH HANDS THOROUGHLY BEFORE EATING, DRINKING OR SMOKING.

STORE IN REFRIGERATOR.
HYGROSCOPIC.
KEEP CONTAINERS TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE.

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8. EXPOSURE CONTROL/PERSONAL PROTECTION:

RESPIRATORY PROTECTION (SPECIFY TYPE): APPROPRIATE NIOSH/MSHA-
APPROVED

VENTILATION: LOCAL EXHAUST: X MECHANICAL:
OTHER:

PROTECTIVE GLOVES: CHEMICAL RESISTANT.

EYE PROTECTION: SAFETY GOGGLES.

OTHER PROTECTIVE EQUIPMENT: EYEWASH STATION AND SAFETY SHOWER.

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9. PHYSICAL DATA:

BOILING POINT: NO DATA SPECIFIC GRAVITY (H₂O = 1): NO DATA
pH: NO DATA

VAPOR PRESSURE (MM HG.): NO DATA MELTING POINT: NO DATA

VAPOR DENSITY (AIR = 1): NO DATA

SOLUBILITY IN WATER:

APPEARANCE AND ODOR: **WHITE
CRYSTALLINE POWDER**

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10. STABILITY AND REACTIVITY:

STABILITY: UNSTABLE: STABLE: **X**

INCOMPATIBILITY (MATERIALS TO AVOID): **INCOMPATIBLE WITH STRONG
OXIDIZING AGENTS.**

HAZARDOUS DECOMPOSITION OF BY-PRODUCTS: **COMBUSTION MAY PRODUCE CO AND
CO₂.**

HAZARDOUS POLYMERIZATION:
MAY OCCUR: WILL NOT OCCUR: **X**

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11. TOXICOLOGICAL INFORMATION:

LD50/LC50: **THE ORAL LD50 IN RATS IS = 2100 mg/kg.
ORAL LD50 - MOUSE = 2100 mg/kg. SUBCUTANEOUS LD50 - MOUSE = 1530
mg/kg.**

REPRODUCTIVE TOXICITY:

IRRITANCY, SENSITIVITY:

CARCINOGENICITY: **NOT LISTED** NTP? IARC? OSHA?

POTENTIAL HEALTH EFFECTS: **THE TOXICOLOGICAL PROPERTIES OF THIS MATERIAL
HAVE NOT BEEN FULLY INVESTIGATED.**

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12. ECOLOGICAL INFORMATION: NO DATA AVAILABLE.

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**13. DISPOSAL CONSIDERATIONS: OBSERVE ALL FEDERAL, STATE AND LOCAL
REGULATIONS.**

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14. TRANSPORTATION INFORMATION:

DOT:
PROPER SHIPPING NAME: **NOT REGULATED**
HAZARD CLASS: **NA (SOLID)**
PACKAGING GROUP: **NA**

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**15. REGULATORY INFORMATION: THIS PRODUCT IS LISTED ON THE INVENTORY OF
EXISTING CHEMICAL SUBSTANCES UNDER THE TOXIC SUBSTANCES CONTROL ACT
(TSCA). TSCA SECTION 8 (b).**

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16. OTHER INFORMATION:

NFPA HAZARD RATING:

HEALTH FLAMMABILITY REACTIVITY SPECIAL HAZARDS

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The information herein is given in good faith but no warranty, expressed or implied, is made.