

Material Safety Data Sheet – Fluoro Lactate

EMERGENCY # FOR NATIONAL RESPONSE CENTER (800) 424-8802

CHEMICAL IDENTIFICATION:

Product Name: Fluoro Lactate – Fluorescent Lactate Detection Kit

Catalog # FLLACT100-2

Components:

Kit Part # 1

1. **Part # 4026.** Detection reagent
2. **Part # 6025.** Reaction enzyme solution

Kit Part # 2

3. **Part # 7022.** Lithium Lactate: One vial of 100X stock, 500 µl
4. **Part # 6004.** Horseradish Peroxidase:
5. **Part # 3011.** 5X Reaction Buffer.

Part# 4026.

Section 1 - Chemical Identification

Synonyms: ADHP, 10-Acetyl-3, 7-dihydroxyphenoxazine

CAS #: 119171-73-2

Chemical Formula: $C_{14}H_{11}NO_4$

Section 2 - Hazard Identification

Not known.

Section 3 - Characteristics

Red-brown powder

Boiling point °f: No data available.

Vapor pressure (mm Hg): No data available.

Vapor density: No data available.

Solubility in water: Very low.

Specific gravity: Not applicable.

% Volatile by volume: Not applicable.

Evaporation rate: No data available.

pH: Not applicable to a powder.

Section 4 - Storage, Handling, Stability

The material is air sensitive. Store dry material at 4°C.

Section 5 - Safety Control Measures

Gloves and standard laboratory protective clothing and eyewear are recommended. Safe laboratory practices should be followed.

Section 6 - Health Hazard Data

May enter the body through inhalation, ingestion, eye, and skin contact. To our knowledge the hazards of this material have not been fully tested. Handle material with caution.

RTECS Number: None known

Toxicity: We are not aware of any toxicity data for this product.

Health Hazards: We are not aware of any reported health hazards for this product. We recommend treating all chemicals with caution.

Potential Hazards: To our knowledge, the health hazards have not been thoroughly investigated.

Carcinogenicity: Not listed by NTP, IARC or OSHA.

Section 7 - First Aid Measures

Avoid prolonged or repeated exposure. Remove contaminated clothing and shoes, and wash before reuse.

Skin: Wash skin thoroughly with soap and water.

Eyes: Flush with water for at least 15 minutes.

Ingestion: Seek medical attention.

Inhalation: Remove to fresh air. Seek medical attention.

Section 8 - Fire/Explosion Hazard Data

Use any means suitable for extinguishing surrounding fire. It is not necessary to use any special firefighting procedures. Water spray, carbon dioxide, dry chemical powder or appropriate foam can all be used.

Thermal Decomposition: No decomposition if used according to specifications.

Dangerous Reactions: None identified.

Dangerous Products of Decomposition: No dangerous decomposition products identified.

Section 9 - Accidental Release Measures

For release of large amounts of material, wear safety glasses and rubber gloves. Stop source of leak and isolate spill area. Collect material in an appropriate container and dispose all waste in accordance with applicable laws. Dispose of all waste in accordance with all national, state, and local regulations.

Part# 6025 and 6004: Enzyme Mix

Section 1 - Identification

CAS No.: NA

Molecular Weight: NA

Chemical Formula: NA

Section 2 - Hazard Identification

Harmful if swallowed. May cause irritation, avoid breathing vapors or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed

Section 3 - First Aid Measures

Harmful if swallowed. May cause irritation, avoid breathing vapors or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

Section 4 - Fire Fighting Measures

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Fire/Explosion Hazards: Thermal decomposition produces highly toxic fumes.

Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

Section 5 - Accidental Release Measures

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

Section 6 - Handling and Storage

Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

Section 7 - Exposure Controls & Personal Protection

Ventilation: Local Exhaust

Use Gloves, Safety Glasses with side shield.

Other Protective Equipment: Use safe laboratory handling procedures.

Section 8 - Stability and Reactivity Information

Stability: Stable

Conditions to Avoid: Avoid contact with incompatible materials.

Materials to Avoid: Strong acids, aluminum and steel

Hazardous Decomposition Products: Thermal decomposition may produce toxic gases.

Hazardous Polymerization: Will Not Occur

Condition to Avoid: None known

Section 9 - Additional Information

Conditions aggravated/target organs: Persons with pre-existing eye and skin conditions will be more susceptible. Acute: Skin irritation, mild eye irritation, ingestion of large quantities may cause potassium poisoning. Chronic: Dermatitis, eye damage.

DOT Classification: Not Regulated

Part# 7022**Section 1- Identification**

Synonyms : L-Lactic acid lithium salt, Sarcolactic acid lithium salt

Formula : $C_3H_5LiO_3$

Molecular Weight: 96.01 g/mol

Section 2 - Composition/Information on Ingredients

Ingredient	CAS No	Concentration	Hazardous
Lithium Lactate	27848-80-2	4 mM	No
Water	7732-18-5		No

Section 3 - Hazards Identification

-Emergency Overview:

OSHA Hazards

No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification:

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating:

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Potential Health Effects:

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed throat, and abdomen. May also cause abdominal pain, vomiting, and diarrhea.

Skin contact: May be harmful if absorbed through skin. May cause skin irritation.

Eye Contact: May cause eye irritation.

Section 4 - First Aid Measures

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Skin Contact: Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Section 5 - Fire Fighting Measures

Fire: Not considered to be a fire hazard.
Not flammable or combustible.

Explosion: Not considered to be an explosion hazard. Drying of concentrated hydrogen peroxide on clothing or other combustible materials may cause fire or explosion.

Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special protective equipment for firefighters. Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides,
Lithium oxides

Section 6 - Accidental Release Measures

Personal precautions: Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up: Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Store in a cool, well-ventilated dark area. Protect from freezing.

Recommended storage temperature: 2 - 8 °C

Section 8 - Exposure Controls/Personal Protection

Airborne Exposure Limits:

-OSHA Permissible Exposure Limit (PEL):

1 ppm (TWA).

-ACGIH Threshold Limit Value (TLV):

1 ppm (TWA), A3: Animal carcinogen.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95

(US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate

government standards such as NIOSH (US) or CEN (EU).

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Appearance: Form powder

Color: white

Safety data

pH: no data available

Melting point/freezing point: no data available

Boiling point: no data available

Flash point: no data available

Ignition temperature: no data available

Autoignition/temperature: no data available

Lower explosion limit: no data available

Upper explosion limit: no data available

Vapour pressure: no data available

Density: no data available

Water solubility: no data available

Partition coefficient/ n-octanol/water: no data available

Relative vapour density: no data available

Odour: no data available

Odour Threshold: no data available

Evaporation rate: no data available

Section 10 - Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Lithium oxides

Hazardous Polymerization: Will not occur.

Incompatibilities: Heat, reducing agents, organic materials, dirt, alkalis, rust, and many metals.

Conditions to Avoid: Light, heat, incompatibles.

Section 11 - Disposal Considerations

Dilute with water and flush to sewer if local ordinances allow, otherwise, whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 12 - Transport Information

Not regulated.



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