

MATERIAL SAFETY DATA SHEET

Liothyronine Sodium Tablets USP (5 mcg, 25 mcg, 50 mcg)

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SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME: Liothyronine Sodium Tablets USP (5 mcg, 25 mcg, 50 mcg)
COMMON NAME: Liothyronine
CHEMICAL NAME: L-Tyrosine, O-(4-hydroxy-3-iodophenyl)-3,5-diiodo-
SYNONYMS: Triiodothyronine
CHEMICAL FORMULA: C₁₅H₁₂I₃NO₄
CHEMICAL FAMILY: Thyroxine derivative

SECTION 2: COMPOSITION AND INGREDIENTS

CHEMICAL NAME	CAS#	%	OSHA PEL	ACGIH TLV
Liothyronine Sodium, USP	55-06-1	<0.05	NE	NE
Microcrystalline Cellulose, NF	9004-34-6	>70	15 mg/m ³ total dust	10 mg/m ³ inhalable
Calcium Sulfate, Dihydrate, NF	10101-41-4	<10	15 mg/m ³ total dust	10 mg/m ³ inhalable
Hypromellose, USP	9004-65-3	<10	NE	NE
Talc, USP	14807-96-6	<10	2 mg/m ³ respirable	2 mg/m ³ respirable
Colloidal Silicon Dioxide, NF	7631-86-9	<1	6 mg/m ³ inhalable	10 mg/m ³ inhalable

NE = Not Established

SECTION 3: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**Symptoms of Overexposure by Route of Exposure (Liothyronine Sodium):

Skin: May cause irritation. Possibility of allergic reaction.

Eyes: May cause irritation.

Ingestion: May cause irritation. Excessive ingestion may cause hyperthyroidism (irregular heartbeat, headache, dizziness, nervousness, irritability, cramps, shortness of breath, chest pain, sweating, vomiting, diarrhea), confusion, fever, jaundice, muscle wasting, psychosis, restlessness, weakness, convulsions, cardiac arrhythmias, heart failure, coma, and death.

Inhalation: May cause irritation. Possibility of allergic reaction.

Medical Conditions Aggravated by Exposure: Hypersensitivity, adrenocortical insufficiency, cardiovascular disease, thyroid problems, and pituitary insufficiency.

SECTION 4: FIRST AID MEASURES

Skin Exposure: Flush with copious amounts of water. Seek medical attention if irritation develops.

Eye Exposure: Flush eyes with large volumes of water for at least 15 minutes. Seek medical attention if irritation develops.

Ingestion: Seek medical attention immediately! Do not attempt to induce vomiting unless directed by medical personnel. Do not attempt to give any solid or liquid by mouth if the exposed subject is unconscious or semi-conscious.

Inhalation: Not expected to occur under normal conditions of use. Remove to fresh air. Seek medical attention immediately.

SECTION 5: FIRE / EXPLOSION HAZARDS & FIRE-FIGHTING MEASURES

Flash Point (Method Used): NE

Flammable Limits: NE Lower: NE Upper: NE

Fire Extinguishing Equipment: Water spray, dry powder, CO₂, or foam as appropriate for surrounding fire.

Unusual Fire and Explosion Hazards: None expected.

Explosion Sensitivity to Mechanical Impact: Not sensitive.

Explosion Sensitivity to Static Discharge: Not sensitive.

Special Fire Fighting Procedures: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by the DOT *Emergency Response Guidebook*, a self-contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Isolate immediate hazard area and keep unauthorized personnel out. Contain spill if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk. Cool equipment exposed to fire with water, if it can be done with minimal risk.

NE = Not Established

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spill and Leak Response: Collect spilled material and remove to a safe place.

Disposal: Dispose of in accordance with federal, state and local regulations.

SECTION 7: HANDLING AND STORAGE

Work and Hygiene Practices: Wash hands thoroughly after handling. No eating, drinking, or smoking while handling this product.

Handling: Avoid breaking or crushing tablets.

Storage: Follow packaging instructions to maintain integrity and efficacy

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation and Engineering Controls: No special control measures are required for this product. Normal room ventilation is sufficient.

Respiratory Protection: Under normal use, respirators are not required.

Eye Protection: Approved eye protection to safeguard against potential eye contact is recommended.

Hand Protection: Gloves. Wash hands before and after using gloves.

Body Protection: No special body protection required for normal use.

Product Preparation Instructions for Medical Personnel: Follow standard procedure for handling pharmaceutical materials and recommendations presented on the Package Insert.

SECTION 9: PHYSICAL / CHEMICAL PROPERTIES

Boiling Point:	ND	Vapor Pressure:	ND
Vapor Density:	ND	Evaporation Rate :	ND
Physical State:	Solid	Specific Gravity :	ND
Melting Point:	ND	pH (1% soln. in water):	ND
Solubility (water):	ND		
Appearance/Odor:	Tablets.		

ND = No Data

SECTION 10: STABILITY AND REACTIVITY

Stability: Expected to be stable under normal conditions of storage and handling.

Incompatible Materials: None.

Hazardous Polymerization: Not expected to occur.

Conditions to Avoid: Avoid exposure to light.

Hazardous Decomposition or Byproducts: Heating to decomposition may produce toxic fumes of NO_x and I⁻.

SECTION 11: TOXICOLOGICAL INFORMATION

Carcinogenicity: Not listed as a carcinogen.

Reproductive effects: Not expected to cause adverse reproductive effects. Pregnancy category A.

Mutagenicity: Not expected to be mutagenic.

Chronic health effects: Possibility of hypersensitization and hyperthyroidism.

SECTION 12: ECOLOGICAL INFORMATION

No data available.

SECTION 13: WASTE DISPOSAL

Preparing Wastes for Disposal: Dispose of in accordance with local, state, and federal regulations.

SECTION 14: TRANSPORTATION INFORMATION

Transportation and shipping of this product is not restricted.

SECTION 15: REGULATORY INFORMATION**U.S. REGULATIONS:**

SARA 313 listed: No
CERCLA listed: No
RCRA listed: No

SECTION 16: OTHER INFORMATION

Use of this product should be through or under the direction of a physician. This MSDS does not address the therapeutic use of this material.

DEFINITIONS OF ABBREVIATIONS USED:

ACGIH:	American Conference of Governmental Industry Hygienists
CAS:	Chemical Abstract Service
IARC:	International Agency for Research on Cancer
IDLH:	Immediately Dangerous to Life or Health Level
LC ₅₀ :	Medial Lethal Concentration
LD ₅₀ :	Medial Lethal Dose
MSHA:	Mine Safety and Health Administration
N/A:	Not Available
NIOSH:	National Institute for Occupational Safety and Health
NOEC:	No Observed Effect Concentration
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit
STEL:	Short Term Exposure Limit
TLV:	Threshold Limit Value
TWA:	Time Weighted Average

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