

SAFETY DATA SHEET

Preparation Date: 09/12/2019

Revision date 09/12/2019

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: L1241
Product Name: LEVORPHANOL TARTRATE (CII), USP

Other means of identification

Synonyms: (-)-17-Methylmorphinan-3-ol tartrate dihydrate
 (-)-3-Hydroxy-N-methylmorphinan tartrate dihydrate
 l-3-Hydroxy-N-methylmorphinan, D-tartrate, dihydrate
 Levorphanol tartrate dihydrate
 Morphinan-3-ol, 17-methyl-, (2S,3S)-2,3-dihydroxybutanedioate (1:1) (salt), dihydrate
 Morphinan-3-ol, 17-methyl-, (S-(R*,R*)))-2,3-dihydroxybutanedioate (1:1) (salt), dihydrate
CAS #: 5985-38-6
RTECS # QD1924200
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemical Mfg. Corp
 14422 South San Pedro St.
 Gardena, CA 90248
 (310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300

Contact Person: Tom Tyner (USA - West Coast)

Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3

Label elements

Danger

Hazard statements

Toxic if swallowed or if inhaled
Harmful in contact with skin
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May damage fertility or the unborn child
May cause drowsiness or dizziness



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid breathing dust
Use only outdoors or in a well-ventilated area
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical attention
IF ON SKIN: Wash with plenty of water
Call a POISON CENTER or physician if you feel unwell
Wash contaminated clothing before reuse
If skin irritation or rash occurs: Get medical attention
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or physician
Rinse mouth

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and

international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Levorphanol Tartrate	5985-38-6	100

4. FIRST AID MEASURES

First aid measures

- General Advice:** National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Skin Contact:** Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. **WARNING!** It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
- Ingestion:** Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- May cause an allergic skin reaction
 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 - May cause drowsiness or dizziness
 - Nausea
 - Vomiting
 - Abdominal pain
 - May cause constipation
 - Dryness of mouth
 - May cause loss of appetite
 - May cause anorexia
 - Lightheadedness
 - Headache
 - Weakness
 - Nervousness
 - Confusion
 - Tremors
 - Seizures
 - Analgesia
 - Hypotension
 - May affect the urinary system
 - May cause difficult and painful urination
 - Increase in urine volume
 - Blurred vision
 - May be habit forming

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Use water spray or water mist, alcohol-resistant foam, Dry chemical or Carbon dioxide (CO₂).

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous combustion products

Carbon monoxide. Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Specific hazards

May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods:

No information available

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe dust. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials. Store at room temperature in the original container.

Incompatible Materials:

Strong oxidizing agents
 Reducing agents
 Acids
 Bases
 Alkalis
 Ferric salts
 Chlorides
 iodides
 Lead acetate
 Metallic salts

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Levorphanol Tartrate	5985-38-6	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Levorphanol Tartrate	5985-38-6	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Levorphanol Tartrate	5985-38-6	None	None

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment**Personal Protective Equipment**

Eye protection: Goggles or Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid	Appearance: Crystalline powder.	Color: White. Off-white.
Odor: None.	Taste No information available.	Formula C17H23NO.C4H6O6.2H2O
Molecular/Formula weight (g/mole): 443.49	Flammability (solid, gas) no data available	Flashpoint (°C/°F): 11°C/ 52°F
Flash Point Tested according to: Closed cup	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): 113-115°C/ 235.4-239°F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: No information available	pH No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Soluble in Water	

10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials: Strong oxidizing agents
Reducing agents
Acids
Bases
Alkalis
Ferric salts
Chlorides
iodides
Lead acetate
Metallic salts

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx).

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Ingestion. Inhalation.

Acute Toxicity

Component Information

Levorphanol Tartrate	
CAS No	5985-38-6

LD50/oral/rat = 150 mg/kg Oral LD50 Rat
LD50/oral/mouse = No information available
LD50/dermal/rabbit = No information available
LD50/dermal/rat = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =
Value - Acute Toxicity = 150 mg/kg

LD50/oral/mouse =
Value - Acute Tox = No information available

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

LD50/dermal/rat
VALUE - Acute Tox = No information available

LC50/inhalation/rat

Product code: L1241

Product name: LEVORPHANOL
TARTRATE (CII), USP

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VALUE-Vapor = No information available
 VALUE-Gas = No information available
 VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available
 VALUE - Gas = No information available
 VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation. May cause allergic skin reaction.

Eye Contact: Contact with eyes may cause irritation.

Inhalation May cause irritation of respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms may include coughing and shortness of breath.

Ingestion Ingestion may cause nausea, vomiting. May cause abdominal pain. May cause constipation. May cause dry mouth. May cause decreased appetite or anorexia. May affect behavior/central nervous system (lightheadedness, dizziness, headache, drowsiness, unusual tiredness or weakness, nervousness, confusion, euphoria, tremor, excitement, rigidity, seizures, analgesia). May affect the cardiovascular system (slow, irregular heartbeat, hypotension). May affect urinary system (kidneys). May cause painful or difficult urination. May cause increase in urine volume. May affect blood (changes in serum composition). May cause vision disturbances. May affect eyes (pinpoint pupils). Narcotic. May be habit forming.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated ingestion may affect the kidneys, adrenal gland, bones, central nervous system, and cardiovascular system. May be habit forming if ingested for a prolonged period of time.

Sensitization: May cause sensitization by inhalation and skin contact.

Mutagenic Effects: May affect genetic material

Carcinogenic effects: Not considered carcinogenic.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Levorphanol Tartrate	5985-38-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity May damage fertility or the unborn child

Reproductive Effects: May cause adverse reproductive effects
Developmental Effects: May cause harm to the unborn child
 May cause adverse developmental effects
Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data
 Showed teratogenic effects in animal experiments
 There are no adequate and well-controlled studies in humans
 No data in humans was available to evaluate the effects of exposure on development

Specific Target Organ Toxicity

STOT - single exposure respiratory system.
STOT - repeated exposure No information available.
Target Organs: Central nervous system. Respiratory system. Kidneys.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.
Persistence and degradability: No information available
Bioaccumulative potential: No information available.
Mobility in soil No information available
Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
 Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
 Empty containers should be taken for local recycling, recovery or waste disposal

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Levorphanol Tartrate	5985-38-6	None	None	None	None

14. TRANSPORT INFORMATION

DOT
UN-No: UN2811
Proper Shipping Name: Toxic solids, organic, n.o.s.
Hazard Class 6.1
Subsidiary Class No information available
Packing group: III
Emergency Response Guide Number 154
Marine Pollutant No data available
DOT RQ (lbs): No information available

Special Provisions IB8, IP3, T1, TP33
Symbol(s): No information available
Description: UN2811, Toxic solids, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

TDG (Canada)

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No Information available
Description: UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

ADR

UN Number UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Transport hazard class(es) 6.1
Packing group III
Subsidiary Risk: No information available
Special Provisions 274, 614
Description: UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

IMDG

UN-No: UN2811
Proper Shipping Name: Toxic solids, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: III
Marine Pollutant No information available
EMS: F-A
Special Provisions 223, 274
Description UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

RID

UN Number UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Transport hazard class(es) 6.1
Subsidiary Risk: No information available
Packing group III
Special Provisions 274, 614
Description: UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

ICAO (air)

UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class 6.1
Subsidiary Risk: No information available
Packing Group: III
Description: UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III
Special Provisions A3, A5

IATA

UN Number UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Transport hazard class(es) 6.1
Subsidiary Risk: No information available
Packing group III
Precautionary Statements - 6L

Response
Special Provisions
Description:

No information available
UN2811, Toxic solid, organic, n.o.s. (Levorphanol Tartrate), 6.1, III

15. REGULATORY INFORMATION

International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
<i>Levorphanol Tartrate</i>	5985-38-6	Not Listed	Not present	Not present	Not present	Not listed	Not listed	Not present

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Levorphanol Tartrate</i>	5985-38-6	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
<i>Levorphanol Tartrate</i>	5985-38-6	None	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Levorphanol Tartrate</i>	5985-38-6	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

Canada Hazardous Products Regulation This product has not been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Levorphanol Tartrate	5985-38-6	Not Listed	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Levorphanol Tartrate	5985-38-6	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Levorphanol Tartrate	5985-38-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Levorphanol Tartrate	5985-38-6	

EU - CLP (1272/2008)

R-phrase(s)

R21 - Harmful in contact with skin
R60 - May impair fertility
R63 - Possible risk of harm to the unborn child
R23/25 - Toxic by inhalation and if swallowed
R42/43 - May cause sensitization by inhalation and skin contact

S -phrase(s)

S 7 - Keep container tightly closed.
S 9 - Keep container in a well-ventilated place.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S53 - Avoid exposure - obtain special instructions before use
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Levorphanol Tartrate	5985-38-6		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic
Xn - Harmful



16. OTHER INFORMATION

Preparation Date: 09/12/2019
Revision date: 09/12/2019
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product

is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet