

## SAFETY DATA SHEET

Preparation Date: 6/28/2017

Revision Date: 6/28/2017

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** M1174  
**Product Name:** METOPROLOL TARTRATE, USP

#### Other means of identification

**Synonyms:** (+)-1-(Isopropylamino)-3-(p-(2-methoxyethyl)phenoxy)-2-propanol hemi-L-tartrate  
 (+)-1-(Isopropylamino)-3-(p-(2-methoxyethyl)phenoxy)-2-propanol tartrate (2:1)  
 Metoprolol hemitartrate  
 2-Propanol, 1-(4-(2-methoxyethyl)phenoxy)-3-((1-methylethyl)amino)-, (+)-, tartrate (2:1)

**CAS #:** 56392-17-7  
**RTECS #** UB7450100  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** Drug, Medication.  
**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:** Martin LaBenz (West Coast)

**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

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

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

Reproductive toxicity	Category 2
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#### Label elements

##### **Warning**

##### **Hazard statements**

Suspected of damaging fertility or the unborn child

**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

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response***IF exposed or concerned: Get medical advice/attention***Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No.	Weight %
Metoprolol Tartrate	56392-17-7	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.

**Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**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 not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Most important symptoms and effects, both acute and delayed****Symptoms**

May cause skin irritation. May cause eye irritation. Central nervous system effects. Dizziness. Lightheadedness. Headache. Drowsiness. May cause muscle weakness. May cause cardiovascular effects. Hypotension. Bradycardia. May cause nausea and vomiting. Upset stomach. Mild stomach pain. Dyspnea (Difficulty breathing and shortness of breath). May cause swelling of the arms, hands, fingers, ankles, feet, legs. May cause cyanosis.

May cause cold hands and feet.

**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:** Dry chemical. Carbon dioxide (CO<sub>2</sub>). Water spray. Foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon Dioxide, Carbon Monoxide. Nitrogen Oxides.

**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:** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. 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. All equipment used when handling the product must be grounded. Remove all sources of ignition. Keep away from incompatible materials.

**Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. 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:**

Protect from light. Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**

Oxidizing agents

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**National occupational exposure limits**

**United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Metoprolol Tartrate	56392-17-7	None	None	None	None

**Canada**

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Metoprolol Tartrate	56392-17-7	None	None	None	None

**Australia and Mexico**

Components	CAS-No.	Australia	Mexico
Metoprolol Tartrate	56392-17-7	None	None

**Appropriate engineering controls**

**Engineering measures to reduce exposure:**

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:** Safety glasses with side-shields or Goggles

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

**Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and

engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:**

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

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state:</b> Solid	<b>Appearance:</b> Crystalline powder.	<b>Color:</b> White.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula:</b> (C <sub>15</sub> H <sub>25</sub> NO <sub>3</sub> ) <sub>2</sub> -C <sub>4</sub> H <sub>6</sub> O <sub>6</sub>
<b>Molecular/Formula weight:</b> 648.81	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 120-122°C/ 248-251.6°F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available	<b>Density (g/cm<sup>3</sup>):</b> No information available
<b>Specific gravity:</b> No information available	<b>pH:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available
<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> log Kow = 0.6	<b>Viscosity:</b> No information available
<b>Miscibility:</b> No information available	<b>Solubility:</b> Very soluble in water Freely soluble in Methylene chloride Freely soluble in Chloroform Freely soluble in alcohol Slightly soluble in Acetone Insoluble in Ether	

**10. STABILITY AND REACTIVITY**

**Reactivity**

Reactive with oxidizing agents

**Chemical stability**

**Stability:**

Sensitive to light. Exposure to light accelerates decomposition. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:**

Heat. Avoid dust formation. Exposure to light. Incompatible materials.

**Incompatible Materials:**

Oxidizing agents

**Hazardous decomposition products:** Carbon oxides. 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:**  
Inhalation. Ingestion.

### Acute Toxicity

#### Component Information

Metoprolol Tartrate	
CAS-No.	56392-17-7

**LD50/oral/rat** = 5500 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 1500 mg/kg  
**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** = 604 mg/kg oral LD50 Rabbit

#### Product Information

**LD50/oral/rat** =  
**VALUE- Acute Tox Oral** = 5500 mg/kg

**LD50/oral/mouse** =  
**Value - Acute Tox Oral** = 1500 mg/kg

**LD50/dermal/rabbit**  
**VALUE-Acute Tox Dermal** = No information available

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

**LC50/inhalation/rat**  
**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.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause respiratory irritation. Causes nose and throat irritation with coughing and wheezing. Can cause dyspnea (shortness of breath and difficulty breathing). May cause nasal congestion.

**Ingestion** Ingestion may cause nausea, vomiting, diarrhea. May cause upset stomach. May cause constipation. May affect behavior/central nervous system (ataxia, somnolence, muscle weakness). May affect behavior/central nervous system (convulsions). May affect behavior/central nervous system (tiredness). May cause fainting. May also cause anxiety and stress. May cause headache. May affect respiration (dyspnea - difficulty breathing and shortness of breath). May affect the cardiovascular system (slow, irregular heartbeat, hypotension). May affect the cardiovascular system (palpitations). May cause cyanosis. May cause chest pain. May cause joint and muscle pain. May cause dry mouth. May cause flatulence. May cause heartburn. May cause mild stomach pain. May cause cold extremities (hands and feet). May cause swelling of the ankles, feet, legs. May affect behavior/central nervous system (confusion). May affect behavior/central nervous system (sleeping problems, memory loss). May affect behavior/central nervous system (lightheadedness, dizziness).

**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 cause nausea or vomiting. Prolonged or repeated ingestion may cause hyperglycemia. Prolonged or repeated ingestion may affect the blood (changes in cell count). Medical Conditions Aggravated by Exposure: Hypersensitivity to material, diabetes mellitus, mental depression, hyperthyroidism, impaired liver or kidney function. Prolonged or repeated ingestion may affect the central nervous system and cause symptoms similar to that of acute ingestion. Prolonged or repeated ingestion may affect the cardiovascular system.

**Sensitization:** No information available.

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Metoprolol Tartrate	56392-17-7	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** Suspected of damaging fertility or the unborn child

**Reproductive Effects:** May cause adverse reproductive effects based on animal data

**Developmental Effects:** No information available

**Teratogenic Effects:** May cause birth defects (teratogenic effects) based on animal test data

### Specific Target Organ Toxicity

STOT - single exposure No information available.  
STOT - repeated exposure No information available.  
Target Organs: No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Ecotoxicity effects: No data available.  
Persistence and degradability: No information available  
Bioaccumulative potential: No information available.  
Mobility: 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

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Metoprolol Tartrate	56392-17-7	None	None	None	None

## 14. TRANSPORT INFORMATION

### DOT

UN-No: Not Regulated  
Proper Shipping Name: No information available  
Hazard Class: No information available  
Subsidiary Class: No information available  
Packing group: No information available  
Emergency Response Guide Number: No information available  
Marine Pollutant: No data available  
DOT RQ (lbs): No information available  
Special Provisions: No Information available  
Symbol(s): No information available  
Description: No information available

### TDG (Canada)

UN-No: Not Regulated  
Proper Shipping Name: No information available  
Hazard Class: No information available  
Subsidiary Risk: No information available  
Packing Group: No information available



**Marine Pollutant Description:** No Information available  
No information available

**ADR**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available

**IMO / IMDG**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Marine Pollutant** No information available

**RID**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

**ICAO**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available

**IATA**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**ERG Code:** No information available  
**Special Provisions** No information available

**15. REGULATORY INFORMATION**

**International Inventories**

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Metoprolol Tartrate</i>	56392-17-7	Not Listed	Present KE-23290	Not present	Not present	Not present	Present	Present 260-148-9

**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:**

**Product code:** M1174

**Product name:** METOPROLOL  
TARTRATE, USP

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

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Metoprolol Tartrate	56392-17-7	Not Listed	Not Listed	Not Listed	Not Listed

**CERCLA/SARA**

Components	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
Metoprolol Tartrate	56392-17-7	None	None	None	None	None

**U.S. TSCA**

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Metoprolol Tartrate	56392-17-7	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 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

**WHMIS 1988 Hazard Class**

The classification of this product has not been validated yet

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Metoprolol Tartrate	56392-17-7	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Metoprolol Tartrate	56392-17-7	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Metoprolol Tartrate	56392-17-7	Not listed

**EU Classification**

**EU GHS - SV - CLP 172/2008**

Components	CAS-No.	EU GHS - SV - CLP (172/2008)
Metoprolol Tartrate	56392-17-7	

**EU - CLP (1272/2008)**

**R-phrase(s)**

Not determined

**S -phrase(s)**

none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Metoprolol Tartrate	56392-17-7		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC****Indication of danger:**

not determined

**16. OTHER INFORMATION**

**Preparation Date:** 6/28/2017  
**Revision Date:** 6/28/2017  
**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**