

### Section 1: Identification

<b>Common Name/Trade Name</b>	VERAPAMIL HCL	
<b>Supplier Information</b>	Letco Medical, LLC 1316 Commerce Drive NW Decatur, AL 35601 1 (800) 239-5288 +1 (734) 843-4693	<b>IN CASE OF EMERGENCY:</b> Chemtrec 1 (800) 424-9300 (24 hours)
<b>Product Synonym(s)</b>	5-[N-(3,4 Dimethoxyphenylethyl)methylamino]-2-(3,4- dimethoxyphenyl)-2-isopropylvaleronitrile hydrochloride	
<b>Relevant Use(s) of Product</b>	Manufacture or Compounding of Substances	

### Section 2: Hazards Identification

<b>Classification of Substance or Mixture</b>	Skin irritation (Category 2), Eye irritation (Category 2), Specific target organ toxicity - single exposure (Category 3)	
<b>Signal Word</b>	Danger	
<b>Hazard Statement(s)</b>	H301 H311 H331	Toxic if swallowed Toxic in contact with skin Toxic if inhaled
<b>Pictogram(s)</b>		
<b>Precautionary Statement(s)</b>	P261 P264 P270 P280 P363	Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash contaminated clothing before reuse.
<b>Hazards Not Otherwise Classified</b>	No data available	
<b>Ingredient(s) with Unknown Toxicity</b>	No data available	

### Section 3: Composition/Information on Ingredients

<b>Chemical Name</b>	N/A
<b>Common Name</b>	Verapamil hydrochloride
<b>CAS Number</b>	152-11-4
<b>Impurities and/or Stabilizing Additives</b>	No data available

## Section 4: First Aid Measures

<b>General Advice</b>	No data available.
<b>If Inhaled</b>	INHALED If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
<b>In Case of Skin Contact</b>	SKIN If skin or hair contact occurs: Quickly but gently, wipe material off skin with a dry, clean cloth. Immediately remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
<b>In Case of Eye Contact</b>	EYE If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
<b>If Swallowed</b>	SWALLOWED If swallowed, refer for medical attention, where possible, without delay. Urgent hospital treatment is likely to be needed. In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.
<b>Most Important Symptoms and Effects</b>	NOTES TO PHYSICIAN Treat symptomatically.

## Section 5: Fire Fighting Measures

<b>Suitable Extinguishing Media</b>	Water spray or fog.Foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide.
<b>Special Hazards Arising From the Substance/Mixture</b>	No data available
<b>Special PPE and/or Precautions for Firefighters</b>	FIRE FIGHTING Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use fire fighting procedures suitable for surrounding area. Do not approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use FIRE INCOMPATIBILITY Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result Personal Protective Equipment Breathing apparatus. Gas tight chemical resistant suit. Limit exposure duration to 1 BA set 30 mins.

## Section 6: Accidental Release Measures

<b>Personal Precautions, Protective Equipment and Emergency Procedures</b>	MINOR SPILLS Wear protective clothing, gloves, safety glasses and dust respirator. MAJOR SPILLS Wear full body protective clothing with breathing apparatus.
<b>Methods and Materials Used for Containment</b>	MINOR SPILLS Clean up waste regularly and abnormal spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use). Dampen with water to prevent dusting before sweeping. Place in suitable containers for disposal. MAJOR SPILLS Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labeled containers for recycling. Neutralize/decontaminate residue. Collect solid residues and seal in labeled drums for disposal. Wash area and prevent runoff into drains.
<b>Cleanup Procedures</b>	MINOR SPILLS Clean up waste regularly and abnormal spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Vacuum up or sweep up. NOTE: Vacuum cleaner must be fitted with an exhaust micro filter (HEPA type) (consider explosion-proof machines designed to be grounded during storage and use). Dampen with water to prevent dusting before sweeping. Place in suitable containers for disposal. MAJOR SPILLS Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labeled containers for recycling. Neutralize/decontaminate residue. Collect solid residues and seal in labeled drums for disposal. Wash area and prevent runoff into drains.

## Section 7: Handling and Storage

<b>Precautions for Safe Handling</b>	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before reuse. Use good occupational work practice. Observe manufacturer's storing and handling recommendations. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source. Do NOT cut, drill, grind or weld such containers. In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorization or permit.
<b>Conditions for Safe Storage</b>	STORAGE INCOMPATIBILITY Avoid reaction with oxidizing agents May decompose on exposure to heat and light. STORAGE REQUIREMENTS Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations.

## Section 8: Exposure Controls/Personal Protection

<b>Components with Workplace Control Parameters</b>	INTERNAL - OEL 8 hrs TWA - 50 mcg/m3 STEL Not Established
<b>Appropriate Engineering Controls</b>	Unless written procedures, specific to the workplace are available, the following is intended as a guide: HEPA terminated local exhaust ventilation should be considered at point of generation of dust, fumes or vapours. Supplied air respirator should be considered High-energy operations such as milling, particle sizing, spraying or fluidising should be done within an approved emission control or containment system. Develop cleaning procedures and techniques that limit potential exposure
<b>PPE - Eye/Face Protection</b>	safety glasses
<b>PPE - Skin Protection</b>	Wear appropriate gloves; lab coat, coveralls or disposable Tyvek suit safety shoes, and disposable booties.
<b>PPE - Body Protection</b>	Wear appropriate gloves; lab coat, coveralls or disposable Tyvek suit safety shoes, and disposable booties.
<b>PPE - Respiratory Protection</b>	Supplied air respirator should be considered

## Section 9: Physical and Chemical Properties

<b>Appearance</b>	Physical state: Solid. Color: White
<b>Upper/Lower Flammability or Explosive Limits</b>	NA
<b>Odor</b>	odorless
<b>Vapor Pressure</b>	NA
<b>Odor Threshold</b>	NA
<b>Vapor Density</b>	NA
<b>pH</b>	4.5-5.0 5% soln
<b>Relative Density</b>	NA
<b>Melting Point/Freezing Point</b>	491.05
<b>Solubility</b>	Solubility water: Miscible
<b>Initial Boiling Point and Boiling Range</b>	NA
<b>Flash Point</b>	NA
<b>Evaporation Rate</b>	NA
<b>Flammability (Solid, Gas)</b>	NA
<b>Partition Coefficient</b>	NA
<b>Auto-Ignition Temperature</b>	NA
<b>Decomposition Temperature</b>	NA
<b>Viscosity</b>	No data available

## Section 10: Stability and Reactivity

<b>Reactivity</b>	No data available
<b>Chemical Stability</b>	Product is considered stable.
<b>Possibility of Hazardous Reactions</b>	No data available
<b>Conditions to Avoid</b>	Avoid reaction with oxidizing agents
<b>Incompatible Materials</b>	Oxidizing agents
<b>Hazardous Decomposition Products</b>	May decompose on exposure to heat and light. Hazardous polymerization will not occur.

## Section 11: Toxicological Information

<b>Acute Toxicity - LD50 Oral</b>	Oral (rat) LD50 100 mg/kg Intraperitoneal (rat) LD50 60 mg/kg Subcutaneous (rat) LD50 107 mg/kg Intravenous (rat) LD50 16 mg/kg Intramuscular (rat) LD50 47 mg/kg Oral (mouse) LD50 163 mg/kg Intraperitoneal (mouse) LD50 41 mg/kg Subcutaneous (mouse) LD50 68 mg/kg Intravenous (mouse) LD50 5.795 mg/kg Intramuscular (mouse) LD50 45 mg/kg
<b>Acute Toxicity - Inhalation</b>	No data available
<b>Acute Toxicity - Dermal</b>	No data available
<b>Acute Toxicity - Eye</b>	No data available
<b>Skin Corrosion/Irritation</b>	No data available
<b>Serious Eye Damage/Irritation</b>	No data available
<b>Respiratory or Skin Sensitization</b>	No data available
<b>Germ Cell Mutagenicity</b>	No data available
<b>Carcinogenicity IARC</b>	No data available
<b>Carcinogenicity ACGIH</b>	No data available
<b>Carcinogenicity NTP</b>	No data available
<b>Carcinogenicity OSHA</b>	No data available
<b>Reproductive Toxicity</b>	No data available
<b>Specific Target Organ Toxicity - Single Exposure</b>	No data available
<b>Specific Target Organ Toxicity - Repeated Exposure</b>	No data available
<b>Aspiration Hazard</b>	No data available

## Section 12: Ecological Information

<b>Toxicity</b>	No data available. DO NOT discharge into sewer or waterways
<b>Persistence and Degradability</b>	No data available
<b>Bio-accumulative Potential</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other Adverse Effects</b>	No data available

## Section 13: Disposal Considerations

<b>Waste Treatment Methods Product</b>	Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill. Where possible retain label warnings and MSDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse Recycling Disposal (if all else fails)
<b>Waste Treatment Methods Packaging</b>	Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill. Where possible retain label warnings and MSDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. A Hierarchy of Controls seems to be common - the user should investigate: Reduction Reuse Recycling Disposal (if all else fails)
<b>Special Precautions Landfill or Incinerations</b>	No data available
<b>Other Information</b>	No data available

## Section 14: Transport Information

<b>UN Number</b>	2811
<b>UN Proper Shipping Name</b>	Toxic solids, organic, n.o.s. (Verapamil hydrochloride)
<b>Transport Hazard Class(es)</b>	6.1
<b>Packaging Group</b>	III
<b>Environmental Hazards</b>	No data available

## Section 15: Regulatory Information

No data available

## Section 16: Other Information

<b>Additional Information</b>	N/A
<b>Prepared By</b>	Lisa Russell
<b>Revision Date</b>	01/09/2019 12:33

### Disclaimer

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