



Section 1. Product and Company Identification

Product Name	Verapamil Hydrochloride
Product ID	V1769
Chemical Name (Synonyms)	Arpamyl; Berkatens; Calan; Cardigutt; Cordilox; Dignover; Geangin; Univer; Verapatin; Verexamil
Supplier	LKT Laboratories, Inc 545 Phalen Blvd. St. Paul, MN 55130 USA Ph: 651-644-8424 Fax: 651-644-8357 www.lktlabs.com - getinfo@lktlabs.com
Emergency Phone #	1-800-424-9300

Section 2. Hazards Identification

GHS Classification	Acute toxicity, Oral (Category 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Skin (Category 3), H311
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GHS Label elements including precautionary statements**Pictogram****Signal word** **Danger****Hazard and precautionary statements****Hazard statement**

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

Precautionary statements

P261 - Avoid breathing dust, fumes, gas, mist, vapors and spray.

P264 - Wash skin thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves and protective clothing.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 - Call a POISON CENTER or doctor or physician if you feel unwell.

P322 - Specific measures (see First Aid Measures in Section 4).

P330 - Rinse mouth.

P361 - Remove or take off immediately all contaminated clothing.

P363 - Wash contaminated clothing before reuse.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents and/or container to an approved waste disposal plant.

HMIS ClassificationHealth hazard: 2
Chronic health hazard: *
Flammability: 0
Physical hazard: 0**NFPA Rating**Health hazard: 2
Fire hazard: 0
Reactivity hazard: 0**Potential Health Effects**Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory irritation.
Skin - Acute toxicity. Toxic if in contact with skin. May cause skin irritation.
Eyes - May cause eye irritation.

Ingestion - Acute toxicity. Toxic if swallowed.

Section 3. Composition/Information on Ingredients

Substances

Formula $C_{27}H_{38}N_2O_4 \cdot HCl$
CAS No. 152-11-4

Formula Wt. 491.07
EC No. 205-800-5

Section 4. First Aid Measures

General advice Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Eye Contact Flush eyes with water as a precaution.

Skin Contact Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

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

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 . Firefighting Measures

Flash Point Not available.

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Firefighting Procedures Wear self-contained breathing apparatus and protective clothing for fire fighting.

Unusual Fire Hazards Carbon oxides, nitrogen oxides (NOx) and hydrogen chloride gas.

Section 6. Accidental Release Measures

Personal Precautions Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist, dust or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleanup Avoid raising dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Storage Conditions This product is light sensitive. Store in a cool, dry, dark place that is well-ventilated in a tightly closed container. Recommended storage temperature: Ambient

Hazardous Decomposition Products Not available.

Other Remarks None.

Section 8. Exposure Controls/Personal Protection

Personal protective equipment EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

PERSONAL PROTECTION

Eye/face protection: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with gloves. The gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full and splash contact - Material: nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time 480 min., Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).

Body protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) OR CEN (EU).

Section 9. Physical and Chemical Properties

Physical State	Solid.	Color	White powder.
Boiling Point	Not available.	Volatility	Not available.
Melting Point	138.5°C-140.5°C(dec.)	Density	Not available.
Solubility	Soluble in water, propylene glycol, methanol, or methylene chloride.	pH	Not available.
Flash Point	Not available.	Ignition temperature	Not available.
Lower explosion limit	Not available.	Autoignition temperature	Not available.
Upper explosion limit	Not available.	Vapor pressure	Not available.
Water solubility	Soluble in water.	Odor	Not available.
Partition coefficient: n-octanol/water	Not available.	Odor Threshold	Not available.
Relative vapor density	Not available.	Evaporation rate	Not available.

Section 10. Stability and Reactivity

Stability	Stable under recommended storage conditions.
Materials To Avoid	Bases.
Hazardous Decomposition Products	Not available.

Possibility of hazardous reactions Not available.

Conditions to avoid Not available.

Section 11. Toxicological Information

Oral LD50 Rat - 108 mg/kg

Skin corrosion/irritation Not available.

Inhalation LC50 Not available.

Serious eye damage/irritation Not available.

Dermal LD50 Not available.

Respiratory or skin sensitization Not available.

Other information on acute toxicity Not available.

Germ cell mutagenicity Not available.

Reproductive Toxicity Not available.

Aspiration Hazard Not available.

Specific organ toxicity single exposure (GHS) Not available.

Synergistic effects Not available.

Specific organ toxicity repeated exposure (GHS) Not available.

Additional Information RTECS: YV8320000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Teratogenicity Not available.

Signs and symptoms of exposure Nausea, dizziness, headache, rash, constipation.

Potential Health Effects Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory irritation.
Skin - Acute toxicity. Toxic if in contact with skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion - Acute toxicity. Toxic if swallowed.

Carcinogenicity **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity Not available.

Mobility in soil Not available.

PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted.

Persistence and degradability Not available.

Other adverse effects Not available.

Bioaccumulative potential Not available.

Section 13. Disposal Considerations

Waste Disposal Dispose of material according to all federal, state and local regulations.
Offer material to a licensed, professional waste disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

Section 14. Transport Information

DOT (US) UN number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s.(Verapamil hydrochloride)
Reportable Quantity (RQ): N/A, Marine pollutant: No, Poison inhalation hazard: No.

IATA UN number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Verapamil hydrochloride).

IMDG UN number: 2811 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Verapamil hydrochloride)
Marine pollutant: No.

Further Information

Section 15. Regulatory Information

Reach No.

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components Acute health hazard

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Verapamil hydrochloride CAS #: 152-11-4 Revision Date:

New Jersey Right To Know Components Verapamil hydrochloride CAS #: 152-11-4 Revision Date:

California Prop 65 Components This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.

Updated 12/11/2018

For emergencies in the USA, call
CHEMTREC 800-424-9300