

## 1. Product and Company Identification

<b>Product Name:</b>	Verapamil · HCl
<b>Catalog Number:</b>	10-1111
<b>Brand:</b>	Focus Biomolecules
<b>Supplier:</b>	Focus Biomolecules LLC 400 Davis Dr Suite 600 Plymouth Meeting PA 19462 USA
<b>Telephone:</b>	(855)362-8721 (9am – 5pm ET)
<b>Fax:</b>	(610)465-9100
<b>Emergency Phone Number: (for manufacturer and supplier)</b>	(855)362-8721
<b>Preparation Information:</b>	Focus Biomolecules Technical Support (855)362-8721 support@focusbiomolecules.com

## 2. Hazards Identification

### Classification of the Substance or mixture:

#### Classification According Regulation (EC) Number 1272/2008 [CLP]:

**Acute Toxicity:** Inhalation, Category 3

**Acute Toxicity:** Oral, Category 3

**Acute Toxicity:** Skin, Category 3

**Skin Corrosion/Irritation:** Category 2

**Target Organ Systemic Toxicity (single exposure):** Category 3

**Aquatic Toxicity (Chronic):** Category 3

#### Classification according to Directive 199/45/EC:

**T: Toxic**

#### Risk Phrases:

R23/24/25 Toxic by inhalation, in contact with the skin and if swallowed

R36/37/38 Irritating to the eyes, respiratory system and skin

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

### Emergency Overview:

### GHS Classification

**GHS Label Elements, including precautionary statements**



**Pictogram**

**Signal word**

Danger

**Hazard statement(s)**

H331: Toxic if inhaled  
H301: Toxic if swallowed  
H311: Toxic if in contact with the skin  
H315: Causes skin irritation  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation  
H412: Harmful to aquatic life with long lasting effects

**Precautionary statements(s)**

P261: Avoid breathing dust  
P264: Wash hands thoroughly after handling  
P280: Wear protective gloves / protective clothing / eye protection / face protection  
P361 + P364: Immediately take off contaminated clothing and wash before reuse  
P362 + P364: Take off contaminated clothing and wash before reuse  
P273: Avoid release to the environment

**Response Phrases**

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P311: Call a POISONCENTER or DOCTOR/PHYSICIAN  
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or DOCTOR/PHYSICIAN  
P330: Rinse mouth  
P302 + P352: IF ON SKIN: Wash with plenty of soap and water  
P312: Call a POISON CENTER or DOCTOR/PHYSICIAN if you feel unwell  
P332 + P313: If skin irritation occurs, get medical advice/attention  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do . Continue rinsing  
P337 + P313: If eye irritation persists, get medical advice/attention  
P309 + P311: Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

**Storage and Disposal Phrases:**

Please see section 7 for Storage and section 13 for Disposal information

**Labeling according to Directive 1999/45/EC:**



T

**Adverse Human Health:  
Effects and Symptoms:**

Causes Skin Irritations  
Causes serious eye irritation.  
Harmful to aquatic life with long lasting effects  
Material may be irritating to the mucous membranes and upper respiratory tract  
May cause respiratory irritation  
Toxic if inhaled  
Toxic if swallowed  
Toxic in contact with the skin  
To the best of our knowledge, the toxicological properties have not been thoroughly investigated

### 3. Composition Information on Ingredients

**Synonyms:** 5-[(3,4-Dimethoxyphenylethyl)methylamino]-2-(3,4-dimethoxyphenyl)-2-isopropyl-valeronitrile · HCl;  
NSC 272366;  
NSC 657799

**Formula:** C<sub>27</sub>H<sub>38</sub>N<sub>2</sub>O<sub>4</sub> · HCl

**Molecular Weight:** 491.06

CAS # / RTECS #	Hazardous Components / REACH Registration No.	Concentration	EC No. / EC Index No.	Risk Phrases / GHS Classification
152-11-4 YV8320000	Verapamil hydrochloride	100.0%	205-800-5 NA	T; R23/23/25 – 36/37/38 – 52/53 Acute Tox. (O) 3: H301 Acute Tox. (D) 3: H311 Acute Tox. (I) 3: H331 Skin Corr. 2: H315 Eye Damage 2: H319 TOST (SE) 3: H335 H336 Aquatic (C) 3: H412

### 4. First Aid Measures

**General Advice:** Move out of dangerous area. Consult a physician.

**If Inhaled:** If inhaled, move victim away from danger and into fresh air. If not breathing, provide artificial respiration or give oxygen by trained personnel. Get immediate medical attention

**In Case of Skin Contact:** Immediately wash exposed skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel

**If Swallowed:** For conscious victim, rinse mouth with water. Get medical attention immediately  
Never give anything by mouth to an unconscious person. Do NOT induce vomiting unless directed to do so by medical personnel.

**Important Symptoms and effects (acute and delayed)** Exposure may cause headache, dizziness, nausea, rash or constipation

### 5. Firefighting Measures

**Suitable Extinguishing Media:** Use alcohol resistant foam, dry chemical, or carbon dioxide

**Protective Equipment for Firefighters:** Wear self-contained breathing apparatus for fire fighting - NIOSH approved or equivalent, as well as full protective gear to prevent contact with skin and eyes

**Conditions of Flammability:** No data available

**Flash Point:** No data available

**Explosive Limits:** LEL : No data available

UEL : No data available

**Auto Ignition Point:** No data available

## 6. Accidental Release Measures

**Personal Precautions:** Use personal protective equipment. Avoid dust formation or breathing dust. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus or respirator and appropriate personal protection (rubber boots, safety goggles, and heavy, chemical resistant rubber gloves)

**Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**Methods and Materials for** Contain spill as appropriate, collect without creating dust and transfer to appropriate closed containers. Arrange for disposal in accordance with local regulations.

## 7. Handling and Storage

**Precautions for Safe Handling:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged or repeated exposure

**Conditions for Safe Storage:** Keep container tightly closed in a dry well ventilated place. Store this material at the temperature indicated on the vial label

## 8. Exposure Controls and Personal Protection

### Exposure Parameters:

CAS#	Partial Chemical Name	Britain EH40	France VL	Europe
152-11-4	Verapimil hydrochloride	No data	No data	No data
CAS#	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
152-11-4	Verapimil hydrochloride	No data	No data	No data

### Exposure Controls:

**Engineering Controls:** Use process enclosures, local exhaust ventilation or other engineering controls to control airborne levels below recommended exposure limits.

### Personal Protective Equipment

#### Respiratory Protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type UV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand Protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques (without touching the gloves 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 after use.

**Eye Protection**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection that has been tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Skin and 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.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.  
Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower.  
Do not take internally.

## 9. Physical and Chemical Properties

**Appearance**

**Form:** Solid  
**Color:** White or off-white

**Safety Data**

**pH:** No Data Available  
**Melting/Freezing Point:** No Data Available  
**Boiling Point:** No Data Available  
**Flash Point:** No Data Available  
**Ignition Temperature:** No Data Available  
**Autoignition Temperature:** No Data Available  
**Lower Explosion Limit:** No Data Available  
**Upper Explosion Limit:** No Data Available  
**Vapor Pressure:** No Data Available  
**Density:** No Data Available  
**Water Solubility:** No Data Available  
**Partition Coefficient** No Data Available  
**Relative Vapor Density:** No Data Available  
**Odor:** No Data Available  
**Odor Threshold:** No Data Available  
**Evaporation Rate:** No Data Available

## 10. Stability and Reactivity

**Chemical Stability:** Stable under recommended storage conditions

**Possibility of Hazardous Reactions:** No Data Available

**Conditions to Avoid:** None known

**Materials to Avoid:** Strong oxidizing agents

**Hazardous Decomposition Products**

**Formed under fire conditions:** Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx), Hydrogen chloride gas

**Other decomposition products:** No Data Available

## 11. Toxicological Information

**Acute Toxicity:**

<b>Oral TDLO</b>	Woman : 58 mg/kg Man : 89 mg/kg	Woman (intermittant) : 72 mg/kg
<b>Oral LDLo</b>	Man : 103 mg/kg	
<b>Oral LD50:</b>	Rat : 150 mg/kg Dog : >400 mg/kg	Mouse : 163 mg/kg Guinea Pig : 140 mg/kg
<b>Inhalation LC50:</b>	No Data Available	

<b>Dermal LD50:</b>	Subcutaneous Rat : 107 mg/kg	Subcutaneous mouse : 68 mg/kg
<b>Other Information on Acute Toxicity:</b>	IV LD50 Rat : 16 mg/kg	IV LD50 Mouse : 5.795 mg/kg
	IP LD50 Rat : 60 mg/kg	IP LD50 Mouse : 41 mg/kg
	IM LD50 Rat : 47 mg/kg	IM LD50 Mouse : 45 mg/kg
	IM LD50 Dog : 25 mg/kg	

**Chronic Toxicological Effects:** Verapamil (hydrochloride) – Investigated as a mutagen and reproductive effector

**Skin Corrosion/Irritation:** No Data Available

**Serious Eye Damage/Irritation:** No Data Available

**Respiratory or Skin Sensitization:** No Data Available

**Germ Cell Mutagenicity:** No Data Available

**Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed 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

**Reproductive Toxicity:** Investigated as a possible reproductive effector

**Teratogenicity:** No Data Available

**Specific Target Organ Toxicity – Single exposure (Globally Harmonized System):** No Data Available

**Specific Target Organ Toxicity – Repeated exposure (Globally Harmonized System):** No Data Available

**Aspiration Hazard:** No Data Available

**Additional Information:**

To the best of our knowledge, the physical, chemical and toxicological properties of this compound have not been thoroughly investigated.

**12. Ecological Information**

<b>Toxicity:</b>	Avoid release into the environment Runoff from fire control or dilution water may cause pollution
<b>Persistence and Degradability:</b>	No Data Available
<b>Bioaccumulative Potential:</b>	No Data Available
<b>Mobility in Soil:</b>	No Data Available
<b>PBT and vPvB Assessment:</b>	No Data Available
<b>Other Adverse Effects:</b>	No Data Available

**13. Disposal Considerations**

**Product:**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of in accordance with local state and federal regulations

**Contaminated Packaging:**  
Dispose of as unused product.

## 14. Transport Information

### Land Transport (US DOT):

**DOT Proper Shipping Name:** Toxic solids, organic, n.o.s. (Verapamil)  
**DOT Hazard Class:** 6.1 POISON  
**UN/NA Number:** 2811  
**Packing Group:** III



### Land Transport (European ADR/RID):

**ARD/RID Shipping Name:** Toxic solids, organic, n.o.s. (Verapamil)  
**UN Number:** 2811  
**Packing Group:** III  
**Hazard Class:** 6.1 – POISON

### Air Transport (ICAO/IATA)

**ICAO/IATA Shipping Name:** Toxic solids, organic, n.o.s. (verapamil)  
**UN Number:** 2811  
**Packing group:** III  
**Hazard Class:** 6.1 - POISON  
**IATA Classification:** 6.1

### Additional Transport:

Transport in accordance with local, state and federal regulations  
 When sold in quantities of less than or equal to 1 mL or 1 g, with Excepted Quantity Code of E1, E2, E4 or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10. Therefore packaging does not have to be labeled as Dangerous Goods,/ Excepted Quantity

## 15. Regulatory Information

CAS#	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
152-11-4	Verapamil hydrochloride	No	No	No

CAS#	Hazardous Component (Chemical Name)	Other US EPA or State Lists
152-11-4	Verapamil hydrochloride	CAA HAP, ODC : No CW NPDES : No TSCA : No CA PROP 65 : No

**OSHA Hazards:** Target Organ Effect, Toxic by ingestion

## 16. Other Information

**Revision Date:** March 23 2015

**Additional Information about this Product:**

**Other:**

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