

Verapamil hydrochloride

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: _____

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Substance name	: Verapamil hydrochloride
Chemical name	: 5-(N-(3,4-DIMETHOXYPHENETHYL)-METHYLAMINO)-2-(3,4-DIMETHOXYPHENYL)-2-ISOPROPYL VALERONITRILEHYDROCHLORIDE
EC no	: 205-800-5
CAS No	: 152-11-4
Product code	: 614785
Formula	: C ₂₇ H ₃₈ N ₂ O ₄ .HCl
Synonyms	: Verapamili hcl / VERAPAMIL HYDROCHLORIDE / 5-(N-(3,4-DIMETHOXYPHENETHYL)-METHYLAMINO)-2-(3,4-DIMETHOXYPHENYL)-2-ISOPROPYL VALERONITRILEHYDROCHLORIDE / ISOPTIN
Product group	: Raw material

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category	: Pharmaceutical
Industrial/Professional use spec	: Industrial. For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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2031BH Haarlem - Netherlands
T +31(0)23-5319093 - F +31(0)23-5318027
info@duchefa.com - www.duchefa.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
STOT SE 3 H335

Full text of H-phrases: see section 16

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Classification according to Directive 67/548/EEC or 1999/45/EC

T; R24/25

Xi; R36/37/38

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS06

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H335 - May cause respiratory irritation

Precautionary statements (CLP) :

P280 - Wear protective gloves, protective clothing, eye protection, face protection
P301+P310 - IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
P260 - Do not breathe dust
P284 - Wear respiratory protection

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Pharmaceuticals

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Verapamil hydrochloride (Main constituent)	(CAS No) 152-11-4 (EC no) 205-800-5	100	T; R24/25 Xi; R36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Verapamil hydrochloride (Main constituent)	(CAS No) 152-11-4 (EC no) 205-800-5	100	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 STOT SE 3, H335

Full text of R-, H- and EUH-phrases: see section 16

3.2. Mixture

Not applicable

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SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). If possible show this sheet, if not available show packaging or label.
- First-aid measures after inhalation : Remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice (show the label where possible).
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER or doctor/physician. Wash contaminated clothing before reuse. Transport to hospital immediately.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
- Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustible.

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid raising dust. Do not breathe dust.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Stop leak if safe to do so.

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6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid raising dust. Avoid frequent contact with substance. Avoid contact with skin and eyes.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Ensure adequate ventilation. Avoid breathing Substance.

Hygiene measures : Do no eat, drink or smoke when using this product. Wash Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Keep only in the original container in a cool, well-ventilated place.

Incompatible products : Strong bases. Strong acids.

Incompatible products : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Pharmaceutical industry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Protective gloves made of rubber or PVC. Chemical resistant gloves (according to European standard NF EN 374 or equivalent).

Eye protection : Chemical goggles or safety glasses. Face-shield.

Skin and body protection : Wear suitable protective clothing. Avoid direct skin contact with product. Identify potential areas for indirect skin contact. Wear gloves (tested to EN374) if hand contact with substance likely. Clean up contamination/spills as soon as they occur. Wash off any skin contamination immediately. Provide basic employee training to prevent / minimise exposures and to report any skin problems that may develop.

Respiratory protection : Approved dust respirator.

Other information : When using, do not eat, drink or smoke. The personal safety equipment must be compliant to the requirements specified in the 89/686/CEE irective and relevant changes (CE mark). The equipment must be decided according to the workplace as part of a risk analysis compliant with the 89/686/CEE Directive and relevant changes.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Crystalline powder.

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Molecular mass	: 491,1 g/mol
Colour	: almost white.
Odour	: odourless.
Odour threshold	: No data available
pH	: 4 - 6,5
pH solution	: 5 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 142 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: 305 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: mg/L Combustible.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in chloroform. 40%. Water: 5 % Ethanol: 4 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Other properties : Flammability : LFL 50 mg/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Nitrogen oxides. Carbon monoxide. Hydrogen cyanide. Hydrogen chloride.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Blood pressure drop. Nausea. Dizziness

Verapamil hydrochloride (152-11-4)	
LD50 oral rat	108 mg/kg
LD50 dermal rat	107 mg/kg
ATE (oral)	100,000 mg/kg bodyweight
ATE (dermal)	300,000 mg/kg bodyweight
LD50	163 mg/kg oral mice;

Skin corrosion/irritation : May cause slight irritation to the skin
Based on available data, the classification criteria are not met
pH: 4 - 6,5

Serious eye damage/irritation : Irritating to eyes.
Based on available data, the classification criteria are not met
pH: 4 - 6,5

Respiratory or skin sensitisation : Not classified
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : May cause respiratory irritation.
May cause respiratory irritation

Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms : Toxic if swallowed. Toxic in contact with skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

Verapamil hydrochloride (152-11-4)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Verapamil hydrochloride (152-11-4)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not discharge the waste into the drain.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No : 2811

UN-No.(IATA) : 2811

14.2. UN proper shipping name

Proper Shipping Name : TOXIC SOLID, ORGANIC, N.O.S.

Transport document description : UN 2811 TOXIC SOLID, ORGANIC, N.O.S., 6.1, III, (E)

14.3. Transport hazard class(es)

Class (UN) : 6.1

Class (IATA) : 6.1 - Toxic Substances

Hazard labels (UN) : 6.1



14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 60

Classification code (UN) : T2

Orange plates :



Special provision (ADR) : 274, 614

Transport category (ADR) : 2

Tunnel restriction code : E

Limited quantities (ADR) : 5kg

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Excepted quantities (ADR) : E1

EAC code : 2X

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : REACH Disclaimer:
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number). **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness.

Full text of R-, H- and EUH-phrases::

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H301	Toxic if swallowed
H311	Toxic in contact with skin
H335	May cause respiratory irritation
R24/25	Toxic in contact with skin and if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
T	Toxic

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Xi	Irritant
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SDS EU (REACH Annex II) Duchefa

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