

Safety Data Sheet

according to UK REACH Regulation

(+)-Verapamil Hydrochloride

Revision date: 31.05.2022

Product code: 5630

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

(+) -Verapamil Hydrochloride

Further trade names

Benzeneacetonitrile, alpha-[3-[[2-(3,4-dimethoxyphenyl)ethyl]-methylamino]propoyl]-3,4-dimethoxy-alpha-(1-methylethyl)-, monohydrochloride, (alphaR)-

Synonyms:

Benzeneacetonitrile, alpha-[3-[[2-(3,4-dimethoxyphenyl)ethyl]-methylamino]propoyl]-3,4-dimethoxy-alpha-(1-methylethyl)-, monohydrochloride, (R)-; (+)-Verapamil hydrochloride; (R)-Verapamil hydrochloride; Dexverapamil monohydrochloride; LU 33925; NSC 632821

CAS No: 38176-02-2

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

Reference standard for (+)-[11C]Verapamil

1.3. Details of the supplier of the safety data sheet

Company name:	ABX advanced biochemical compounds	
	Biomedizinische Forschungsreagenzien GmbH	
Street:	Heinrich-Gläser-Straße 10-14	
Place:	01454 Radeberg	
Telephone:	+49 3528 4041 60	Telefax: +49 3528 4041 65
e-mail:	info@abx.de	
Contact person:	Dr. Christoph Meyer	Telephone: +49 3528 4041 8732
e-mail:	meyer@abx.de	
Internet:	http://www.abx.de	

1.4. Emergency telephone number:

+49 3528 4041 60

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**Acute Tox. 3; H331
Acute Tox. 3; H311
Acute Tox. 3; H301

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Signal word:** Danger**Pictograms:****Hazard statements**

H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.

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Precautionary statements

P262	Do not get in eyes, on skin, or on clothing.
P260	Do not breathe dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Sum formula:	C ₂₇ H ₃₈ N ₂ O ₄ x HCl x H ₂ O
Molecular weight:	509.08

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
38176-02-2	(+) -Verapamil Hydrochloride			95 - < 100 %
	Acute Tox. 3, Acute Tox. 3, Acute Tox. 3; H331 H311 H301			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
38176-02-2		(+) -Verapamil Hydrochloride	95 - < 100 %
		inhalation: ATE = 3 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = 163 mg/kg	

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air. In case of breathing difficulties administer oxygen. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately and dispose off safely. Call a physician immediately.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Atomized water. alcohol resistant foam. Dry extinguishing powder. Carbon dioxide (CO₂).**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

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Additional information

Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Provide adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up**Other information**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container dry. Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Keep container in a well-ventilated place.

Further information on storage conditions

Storage
of °C: -25
up to °C: -15

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe dust.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Tightly sealed safety glasses.

Hand protection

Single-use gloves. NBR (Nitrile rubber).

Skin protection

Lab apron. Chemical resistant safety shoes.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: solid
 Colour: colourless

Changes in the physical state**Solubility in other solvents**

Chloroform Ethanol

SECTION 10: Stability and reactivity**10.4. Conditions to avoid**

Light.

10.5. Incompatible materials

Oxidizing agents, strong.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Nitrogen oxides (NOx). Hydrochloric gas.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Toxic. Acute toxicity, oral. Acute toxicity, inhalant. Acute toxicity, dermal.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
38176-02-2	(+) -Verapamil Hydrochloride				
	oral	LD50 mg/kg	163	Rat	
	dermal	ATE mg/kg	300		
	inhalation vapour	ATE	3 mg/l		
	inhalation dust/mist	ATE	0,5 mg/l		

Additional information on tests

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 12: Ecological information**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of UK REACH.

12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

Further information

Do not allow to enter into surface water or drains. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

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List of Wastes Code - residues/unused products

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - used product

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number: UN 2811
14.2. UN proper shipping name: Toxic solid, organic, N.O.S. (Verapamil monohydrochloride hydrate)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1
Classification code: T2
Special Provisions: 274
Limited quantity: LQ9
Transport category: 2
Hazard No: 60
Tunnel restriction code: E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 2811
14.2. UN proper shipping name: Toxic solid, organic, N.O.S. (Verapamil monohydrochloride hydrate)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1

Marine transport (IMDG)

14.1. UN number or ID number: UN 2811
14.2. UN proper shipping name: Toxic solid, organic, N.O.S. (Verapamil monohydrochloride hydrate)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1
Marine pollutant: No
EmS: F-A, S-A

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 2811
14.2. UN proper shipping name: Toxic solid, organic, N.O.S. (Verapamil monohydrochloride hydrate)
14.3. Transport hazard class(es): 6.1
14.4. Packing group: III
Hazard label: 6.1
Limited quantity Passenger: 10kg
IATA-packing instructions - Passenger: 619
IATA-max. quantity - Passenger: 100 kg

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IATA-packing instructions - Cargo:

619

IATA-max. quantity - Cargo:

200 kg

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water hazard class (D):

3 - highly hazardous to water

SECTION 16: Other information**Relevant H and EUH statements (number and full text)**

H301

Toxic if swallowed.

H311

Toxic in contact with skin.

H331

Toxic if inhaled.