

has been used for anxiety disorders and as a tonic during convalescence from chronic illness.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austral:** Avena Complex; Calmo; Nevaton; **Austria:** Sinupret; **Cz:** Sinupret; Stomatosan; **Fr:** Calmophytum; Vigilla; **Ger:** Sinupret; **Hong Kong:** Sinupret; **Hung:** Sinupret; **Indon:** Sinupret; **Ital:** Neodema 47; **Mex:** Bisolinus; **Philipp:** Sinupret; **Pol:** Sinupret; **Rus:** Sinupret (Синупрет); **Singapore:** Sinupret; **Switz:** Sinupret; Tisane pour nourissons et enfants; **Thai:** Sinupret; **UK:** Athera; HRI Night; Kalms Sleep; Modern Herbs Menopause; Modern Herbs Stress; Newrelax; Period Pain Relief; Prementaid; Scullcap & Gentian Tablets; Stressless; SuNerven.

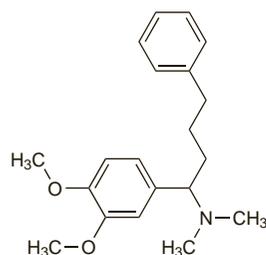
Vetrabutine Hydrochloride (BANM, rINN)

Dimophebumine Hydrochloride; Hidrocloruro de vetrabutina; Sp-281; Vétrabutine, Chlorhydrate de; Vetrabutini Hydrochloridum. *N,N*-Dimethyl- α -(3-phenylpropyl)veratrylamine hydrochloride.

Ветрабутина Гидрохлорид

$C_{20}H_{27}NO_2 \cdot HCl = 349.9$.

CAS — 3735-45-3 (vetrabutine); 5974-09-4 (vetrabutine hydrochloride).



(vetrabutine)

Profile

Vetrabutine hydrochloride is used as a uterine relaxant in veterinary medicine.

Vinburnine (rINN)

CH-846; (–)-Ebumamnine; 3 α ,16 α -Ebumamnine; Vinburnina; Vinburninum; Vincamone. (3 α ,16 α)-Ebumamenin-14(15H)-one.

Винбурнин

$C_{19}H_{22}N_2O = 294.4$.

CAS — 4880-88-0.

ATC — C04AX17.

ATC Vet — QC04AX17.

Profile

Vinburnine is an alkaloid related to vincamine (below) and has been used in conditions associated with cerebral circulatory insufficiency.

Vinburnine phosphate has been used similarly.

Preparations

Proprietary Preparations (details are given in Part 3)

Fr: Cervoxan; **Ital:** Ebumal; Tensiplex; **Port:** Cervoxan; **Spain:** Cervoxan.

Vincamine (BAN, rINN)

Vincamina; Vincaminum. Methyl (3 α ,16 α)-14,15-dihydro-14 β -hydroxyebumamenine-14-carboxylate.

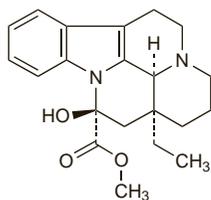
Винкамин

$C_{21}H_{26}N_2O_3 = 354.4$.

CAS — 1617-90-9.

ATC — C04AX07.

ATC Vet — QC04AX07.



Pharmacopoeias. In Fr.

Profile

Vincamine is an alkaloid obtained from *Vinca minor* (Apocynaceae). It is claimed to increase cerebral circulation and utilisation of oxygen and has been used in a variety of cerebral

disorders. Vincamine may have adverse effects on the cardiovascular system and care should be taken in patients with hypertension or cardiac dysfunction.

Vincamine salts including vincamine hydrochloride, oxoglurate, teprissilate, and hydrogen tartrate have also been used.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg: Cincualta; Vinkhum; **Austria:** Ceta; **Belg:** Cerebroxine; **Fr:** Vincap; **Ger:** Ophdivas N; **Hong Kong:** Aethroma; **Ital:** Vasonett; Vincap; Vincap-Treis; Vincadar; Vraap; **Mex:** Vincapan; **Port:** Arteriovinca; Cervinca; Vincagil; **Spain:** Arteriovinca; Domeni; Tefavinca; Vadicate; Vincacen; Vincaminol; **Switz:** Ceta; Oxygeron.

Multi-ingredient: **Arg:** Ribex; **Fr:** Rheobral; **Port:** Anacervix; Centracetam; Stimilfar; **Spain:** Anacervix; Devincal; **Venez:** Devincal.

Vinpocetine (USAN, rINN)

AY-27255; Ethyl Apovincaminat; Ethyl Apovincaminoate; RGH-4405; Vinpocetin; Vinpocetina; Vinpocétine; Vinpocetinum; Vinpocetiini. Ethyl (3 α ,16 α)-ebumamenine-14-carboxylate.

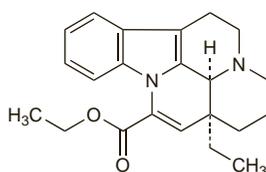
Винпоцетин

$C_{22}H_{26}N_2O_2 = 350.5$.

CAS — 42971-09-5.

ATC — N06BX18.

ATC Vet — QN06BX18.



Pharmacopoeias. In Eur. (see p.vii).

Ph. Eur. 6.2 (Vinpocetine). A white or slightly yellow, crystalline powder. Practically insoluble in water; soluble in dichloromethane; slightly soluble in anhydrous alcohol.

Profile

Vinpocetine is a derivative of vincamine (above) that has been given orally in cerebrovascular disorders and dementia. Good evidence to support its use in cognitive impairment is lacking.

References.

- Grandt R, et al. Vinpocetine pharmacokinetics in elderly subjects. *Arzneimittelforschung* 1989; **39**: 1599–1602.
- Blaha L, et al. Clinical evidence of the effectiveness of vinpocetine in the treatment of organic psychosyndrome. *Hum Psychopharmacol Clin Exp* 1989; **4**: 103–11.
- Berecki D, Fekete I. A systematic review of vinpocetine therapy in acute ischaemic stroke. *Eur J Clin Pharmacol* 1999; **55**: 349–52.
- Szatmari SZ, Whitehouse PJ. Vinpocetine for cognitive impairment and dementia. Available in The Cochrane Database of Systematic Reviews; Issue 1. Chichester: John Wiley; 2003 (accessed 31/03/06).
- Kemény V, et al. Acute and chronic effects of vinpocetine on cerebral hemodynamics and neuropsychological performance in multi-infarct patients. *J Clin Pharmacol* 2005; **45**: 1048–54.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg: Cavinton; **Braz:** Vicog; **Cz:** Cavinton; Vicerol; **Ger:** Cavinton; **Hung:** Cavinton; **Pol:** Cavinton; Vicerol; Vinpoton; **Port:** Cavinton; Ultra-Vinca; Vipozem; **Rus:** Cavinton (Кавинтон); Telectol (Телектол); **Singapore:** Cavinton; **Thai:** Cavinton; Vinprosen.

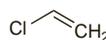
Multi-ingredient: **Rus:** Vinpotropile (Винпотропили).

Vinyl Chloride

Cloruro de vinilo; VCM; Vinilo, cloruro de; Vinyl Chloride Monomer; Winylu chlorek. Chloroethylene.

$C_2H_3Cl = 62.50$.

CAS — 75-01-4.



Profile

Vinyl chloride is used in the manufacture of polyvinyl chloride (PVC) and other vinyl polymers. Occupational exposure to vinyl chloride in polymerisation plants has been associated with acroosteolysis, especially in the terminal phalanges of the fingers, a condition resembling Raynaud's phenomenon, and scleroderma-like skin changes. Liver damage and hepatic angiosarcoma, splenomegaly, thrombocytopenia, impaired respiratory function, and chromosomal abnormalities have also occurred.

References.

- Infante PF, et al. Genetic risks of vinyl chloride. *Lancet* 1976; **i**: 734–5.
- Black CM, et al. Genetic susceptibility to scleroderma-like syndrome induced by vinyl chloride. *Lancet* 1983; **i**: 53–5.

- Piratsis R, et al. La mortalità dei produttori di cloruro di vinile in Italia. *Med Lav* 1991; **82**: 388–423.
- Riordan SM, et al. Vinyl chloride related hepatic angiosarcoma in a polyvinyl chloride autoclave cleaner in Australia. *Med J Aust* 1991; **155**: 125–8.
- Mur JM, et al. Spontaneous abortion and exposure to vinyl chloride. *Lancet* 1992; **339**: 127–8.
- McLaughlin JK, Lipworth L. A critical review of the epidemiologic literature on health effects of occupational exposure to vinyl chloride. *J Epidemiol Biostat* 1999; **4**: 253–75.

Water

Aqua; Aqua; Aqua Communis; Aqua Fontana; Aqua Potabilis; Eau Potable; Vatten; Vesi; Víz; Wasser; Woda.

$H_2O = 18.02$.

CAS — 7732-18-5.

Purified Water

Aqua purificata; Aqua purificata; Eau purifiée; Išgrynintas vanduo; Puhdistettu vesi; Tisztított víz; Vatten, renat; Voda čistěná; Woda oczyszczona.

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Int.*, *Jpn.*, *US*, and *Viet.*

Eur. also includes Highly Purified Water. *US* also includes Sterile Purified Water.

Some pharmacopoeias only include distilled water or have additional monographs for demineralised water or distilled water.

Ph. Eur. 6.2 (Water; Purified; Aqua Purificata). It is water for the preparation of medicines other than those that are required to be both sterile and apyrogenic, unless otherwise justified and authorised. It is prepared from suitable potable water either by distillation, by ion exchange, by reverse osmosis, or by any other suitable method. Store in conditions designed to prevent growth of micro-organisms and to avoid any other contamination. Sub-monographs cover Purified Water in Bulk and Purified Water in Containers.

Ph. Eur. 6.2 (Water; Highly Purified; Aqua Valde Purificata). It is water intended for the preparation of medicinal products where water of high biological quality is needed, except where Water for Injections is required.

USP 31 (Purified Water). It is prepared from potable water by a suitable process.

Preparation. DEIONISATION. By passing potable water through columns of anionic and cationic ion-exchange resins, ionisable substances can be removed, producing a water of high specific resistance. Colloidal and non-ionisable impurities such as pyrogens may not be removed by this process.

DISTILLATION. In this process water is separated as vapour from non-volatile impurities and is subsequently condensed. In practice, non-volatile impurities may be carried into the distillate by entrainment unless a suitable baffle is fitted to the still.

Water for Injections

Aqua para inyecciones; Aq. pro Inj.; Aqua ad iniectiones; Aqua ad Injectionem; Aqua Iniectionis; Aqua Pro Iniectione; Aqua pro Iniectione; Aqua pro Iniectionibus; Eau pour préparations injectables; Injekcinis vanduo; Injektionesteisin käytettävä vesi; Vatten för injektionsvätskor; Víz parenterális célra; Voda na injekci; Wasser für Injektionszwecke; Water for Injection; Woda do wstrzykiwań.

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Int.*, *Jpn.*, *US*, and *Viet.*

US also includes Sterile Water for Injection, Sterile Water for Inhalation, Sterile Water for Irrigation, and Bacteriostatic Water for Injection.

Ph. Eur. 6.2 (Water for Injections). It is water for the preparation of medicines for parenteral administration when water is used as the vehicle, and for dissolving or diluting substances or preparations for parenteral administration. It is prepared by distillation of potable water or purified water from a neutral glass, quartz, or suitable metal still fitted with an effective device for preventing the entrainment of droplets; the first portion of the distillate is discarded and the remainder collected. Store in conditions designed to prevent growth of micro-organisms and to avoid any other contamination. Sub-monographs cover Water for Injections in Bulk and Sterilised Water for Injections.

USP 31 (Water for Injection). It is purified by distillation or a purification process that is equivalent or superior to distillation in the removal of chemicals and micro-organisms. When used for the preparation of parenteral solutions it should be sterilised first or the final preparation should be sterilised after preparation. Sterile Water for Injection, Inhalation, or Irrigation and Bacteriostatic Water for Injection are the subjects of separate monographs.

Profile

There are international standards for the quality of water intended for human consumption. Toxic substances such as arsenic, barium, cadmium, chromium, copper, cyanide, lead, and selenium may constitute a danger to health if present in drinking water