

Adiphenine Hydrochloride (USAN, rINNM)

Адифенин, Chlorhydrate d'; Adiphenini Hydrochloridum; Cloridrato de Adifenina; Hidrocloruro de adifenina; NSC-129224; Spasmolytine.

Адифенина Гидрохлорид

$C_{20}H_{25}NO_2 \cdot HCl = 347.9$.

CAS — 50-42-0.

Profile

Adiphenine and adiphenine hydrochloride have been used as antispasmodics.

Preparations

Proprietary Preparations (details are given in Part 3)

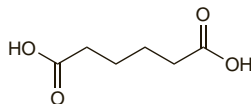
Multi-ingredient: **Braz.:** Analgoledan†; Dipiro†; Dorien; Doriless; Lisador; Sedalene; Sedalin; **Chile:** Abalgin; Andif†; Immediat†; SAE; **Switz.:** Spasmo-Barbamin†; Spasmo-Barbamine compositum†; **Turk.:** Spasmo-Panalgin.

Adipic Acid

Acide adipique; Acidum adipicum; Adípico, ácido; Adipiinihapo; Adipinsäure; Adipinsav; Adipinsyra; Adipo rūgštis; Hexanedioic Acid; Kwasa adypinowy; Kyselina adipová. 1,4-Butanedicarboxylic acid.

$C_6H_{10}O_4 = 146.1$.

CAS — 124-04-9.



Pharmacopoeias. In *Eur.* (see p.vii). Also in *USNF*.

Ph. Eur. 6.2 (Adipic Acid). A white or almost white, crystalline powder. Sparingly soluble in water; soluble in boiling water; freely soluble in alcohol and in methyl alcohol; soluble in acetone.

USNF 26 (Adipic Acid). A white, crystalline powder. Slightly soluble in water; soluble in boiling water and in acetone; freely soluble in alcohol and in methyl alcohol. Store in airtight containers.

Profile

Adipic acid is an acidifier that is used in foods and has been included in preparations for the treatment of urinary-tract infections.

Adonis Vernalis

Adonide; Adonidis Vernalis Herba; Adonis; Adonis vernal; Adonis-iskraut; False Hellebore; Herba Adonidis; Vernal Pheasant's Eye; Ziele mlka wiosennego.

Pharmacopoeias. In *Ger.* and *Pol.*

Profile

Adonis vernalis, the dried aerial parts of *Adonis vernalis* (Ranunculaceae), contains cardiac glycosides which have actions similar to those of digoxin (p.1259).

Homeopathy. Adonis vernalis has been used in homeopathic medicines under the following names: Adonis v.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Braz.:** Calmazin†; Serenus; **Ger.:** Miroton; Miroton N†; Oxacant N†; Oxacant-forse N†; Oxacant-Khella N†.

Adrenalone (USAN, pINN) ⊗

Adrenalon; Adrenalona; Adréralone; Adrenaloni; Adrenalonum. 3',4'-Dihydroxy-2-(methylamino)acetophenone.

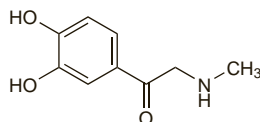
Адреналон

$C_9H_{11}NO_3 = 181.2$.

CAS — 99-45-6.

ATC — A01AD06; B02BC05.

ATC Vet — QA01AD06; QB02BC05.

**Adrenalone Hydrochloride** (pINN/M) ⊗

Адреналон, Chlorhydrate d'; Adrenaloni Hydrochloridum; Adrenalonu chlorowodorek; Hidrocloruro de adrenalona.

Адреналона Гидрохлорид

$C_9H_{11}NO_3 \cdot HCl = 217.6$.

CAS — 62-13-5.

ATC — A01AD06; B02BC05.

ATC Vet — QA01AD06; QB02BC05.

Profile

Adrenalone hydrochloride is used as a local haemostatic and vasoconstrictor. It has also been used with adrenaline in eye drops for glaucoma.

Preparations

Proprietary Preparations (details are given in Part 3)

Denm.: Stryphnon†; **Ger.:** Stryphnasal†.

Multi-ingredient: Ger. Links-Glaukosant†.

Aesculus

Aesculus hippocastanum; Castaño de indias; Hippocastani semen; Horse-chestnut; Marron d'Inde; Rosskastaniensamen.

CAS — 6805-41-0 (aescin); 11072-93-8 (β -aescin); 531-75-9 (anhydrous esculoside).

Pharmacopoeias. In *Fr.*, *Ger.*, *It.*, and *US*.

US also includes the powdered form and powdered extract.

Ger. also includes esculoside in the sesquihydrate form.

USP 31 (Horse Chestnut). The dried seeds of *Aesculus hippocastanum* (Hippocastanaceae), harvested in the autumn. It contains not less than 3.0% of triterpene glycosides, calculated on the dried basis as aescin. Protect from light and moisture.

Profile

The seeds (conkers) and other parts of the horse-chestnut, *Aesculus hippocastanum*, contain several active principles including esculoside (aesculin or esculin); 6- β -D-glucopyranosyloxy-7-hydroxycoumarin, $C_{15}H_{16}O_6 = 340.3$ and aescin (escin), which is a mixture of saponins.

Ingestion of aesculus may cause nausea, vomiting, diarrhoea, abdominal colic, delirium, and with large doses respiratory arrest.

Aescin and esculoside, the major active principles of aesculus, have been used in the prevention and treatment of various peripheral vascular disorders, including haemorrhoids (p.1697). They have been given by mouth, by intravenous injection (in the form of sodium aescinate), by rectal suppository, and applied topically. Aescin has also been given intravenously in the prevention and treatment of postoperative oedema. The maximum intravenous dose in adults for such conditions has been stated to be 20 mg daily; acute renal failure has been reported in patients given higher doses, sometimes with other nephrotoxic drugs. Other derivatives such as sodium aescin polysulfate have also been used.

Homeopathy. *Aesculus* has been used in homeopathic medicines under the following names: *Aesculus hippocastanum*; *Aesculus cortex*; *Aesculus hippocastanum ex cortice*; *Aesc. hip.* Esculoside has been used in homeopathic medicines under the following names: *Aesculinum*; *Aescul.*

Adverse effects. EFFECTS ON THE KIDNEYS. A report of the incidence of acute renal failure in patients after cardiac surgery and implicating high-dose intravenous aescin therapy.¹ In 70 patients given a mean maximum daily dose of 340 micrograms/kg, no alteration of renal function was seen; in 16 receiving 360 micrograms/kg, mild renal impairment occurred; and in 40 given 510 micrograms/kg, acute renal failure developed.

1. Hellberg K, et al. Medikamentös bedingtes post-operatives Nierenversagen nach herzchirurgischen Eingriffen. *Thoraxchirurgie* 1975; **23**: 396-400.

EFFECTS ON THE RESPIRATORY TRACT. Bronchial asthma associated with aescin inhalation has been reported in a worker in the pharmaceutical industry.¹

1. Muñoz X, et al. Occupational asthma related to aescin inhalation. *Ann Allergy Asthma Immunol* 2006; **96**: 494-6.

EFFECTS ON THE SKIN. Contact dermatitis¹ to aesculin and contact urticaria² to aescin have been reported after the use of topical preparations that contained these extracts. Both reactions were confirmed by positive skin tests.

1. Comaish JS, Kersy PJ. Contact dermatitis to extract of horse chestnut (esculin). *Contact Dermatitis* 1980; **6**: 150-1.
2. Escribano MM, et al. Contact urticaria due to aescin. *Contact Dermatitis* 1997; **37**: 233.

POISONING. There have been reports of poisoning in children from eating the seeds, or drinking infusions made from the leaves and twigs of horse-chestnut trees.¹ The toxic substance is considered to be esculoside. Symptoms of poisoning were muscle twitching, weakness, lack of coordination, dilated pupils, vomiting, diarrhoea, paralysis, and stupor.

1. Nagy M. Human poisoning from horse chestnuts. *JAMA* 1973; **226**: 213.

Uses. The use of aesculus has been reviewed,^{1,2} although there is some evidence suggesting benefit in chronic venous insufficiency, more rigorous studies are needed.²

1. Sirtori CR. Aescin: pharmacology, pharmacokinetics and therapeutic profile. *Pharmacol Res* 2001; **44**: 183-93.

2. Pittler MH, Ernst E. Horse chestnut seed extract for chronic venous insufficiency. Available in The Cochrane Database of Systematic Reviews; Issue 1. Chichester: John Wiley; 2006 (accessed 31/03/06).

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Grafic Retard; Herbaccion Venotonico; Nadem; Venastat; Venostasin; **Austria:** Aesculaforce; Provenen; Reparil; Venosin; Venostasin; **Belg.:** Reparil; Veinofytol; Venoplast; **Braz.:** Phytovein; Reparil; Vanilise; Venafort; Venostasin†; Zarv; **Chile:** Venastat; **Cz.:** Reparil; Trauman†; Venitan; Yellon; **Fr.:** Fogencyl; **Ger.:** Aescorin Forte; Aescorin N†; Aescusan; Aescuven; Concentrin; Essaven; Essaven Neu; Hamos-Tropfen-S†; Heweven Phyto; Hoevenol; Nonicaven; Opino; opino N; Perivar Rosskastan†; Plissamar; Proveno N†; Reparil; Rexilufen S†; Sklerovenol N†; Vasoforte N†; Vasotoin†; Venalot novo†; Venen-Dragees†; Venen-Fluid; Venen-Tabletten; Venen-Tropfen N; Venentabs; veno-biomo; Venodura; Venoplast; Venopyronum; Venopyronum N†; Venostasin; **Hong Kong:** Reparil; **Hung.:** Venastat; **Ital.:** Curaven†; Edeven; Flebostasin; Reparil; **Mex.:** Alevarin; Venastat; Verisan†; **Pol.:** Aescuven; Esceven; Reparil; Sapoven; Venastat; Venitan; Venoplast; Venotonin; **Port.:** Varison; Venoparil†; **Rus.:** Venitan (Венитан); Venoplast (Венонанит); **Spain:** Flebostasin; Plantivenol; Provenen†; Vari-cid; **Switz.:** Aesculaforce; AesculMed; Phlebostasin; Reparil; Venavit N; Venostasin; **Thai.:** Reparil; **Turk.:** Reparil N; **UK:** Venaforce; **Venez.:** Vasoplant.

Multi-ingredient: **Arg.:** Escina Forte; Escina Omega; Esculeol P; Reparil†; Flaval; Grafic Forte; Ikana; Troxeven†; Tubarine; Venoful; Venostasin; VNS 45; **Austral.:** Bioglan Cirlo†; Bioglan Zellulean with Escin; Extralife Leg-Care; Herbal Capillary Care†; Proflot; **Austria:** Amphodyn; Augmentropfen Stulln; Dilascok; Heparin Comp; Opino; Reparil; Urelum Neu; Venostasin compositum; **Belg.:** Mictasol-P; Rectovasil; Reparil; **Braz.:** Castanha de India Composta†; Digestron†; Hemoroidex†; Mirroridox†; Novamrutina; Proctosan; Reparil; Supositorio Hamamelis Compositum†; Traumed†; Vari-zol†; Venocur Triplex Venofort†; Venostasin†; **Canada:** Proctol; Proctomyxin HC; Proctosedyl; ratio-Proctosone; **Chile:** Hemorol†; Proctoplex; Repariven; Vanicare†; **Cz.:** Anavenol; Evercil†; Heparin-Gel†; Ophthalmol-Evercil; Reparil-Gel N; **Denm.:** Proctosedyl; **Fin.:** Proctosedyl; **Fr.:** Aphloine P; Arterase; Climaxol; Creme Rap; Escinogel†; Evarose; Hemorotogel; Histofluine P; Intrait de Marron d'Inde P; Mediflor; Tisane Circulation du Sang No 12; Opo-Veinogene; Phlebogel; Phlebosedol†; Phytomel; Preparation H; Reparil; Sedorhoide; Veinoplytium†; Veinostase; Veinotony; Vivene†; **Ger.:** Aescusan; Amphodylin†; Apocleat N†; Augmentropfen Stulln Mono; Cefasabal; Cycloven Forte N; Diu Venostasin; Essaven N†; Essaven ultra†; Essaven†; Fagorutin Rosskastanien-Balsam N; Hametum-N†; Hamos N†; Heparin Comp†; Heparin Kombi-Gel†; Heusin†; Intradermi; Lindigoa S†; opino N spezial†; PCH 30 V; Posti N†; Reparil-Gel N; Revicain comp plus†; Revicain comp†; Salumin Teilbad N†; Salus Venen Krauter Dragees N†; Solum Ol; Sportucap M; Trauma-cyl; Varicylum-S; Venacton†; Venen Krauter NT; Venen-Salbe N†; Venenge†; Veno-Kattwiga N†; Venoplast AH5†; Weleda Hamorhoidalzapfen; **Gr.:** Opino-jel; **Hong Kong:** Proctosedyl†; Proctosone†; Reparil; **Hung.:** Reparil N; **India:** Proctosedyl; **Indon.:** Lanaven; Lanaven Plus; Opino; **Ir.:** Proctosedyl; **Ital.:** Algorex; Altradine; Angioeven; Brest; Capill; Capill Venogel; Centella Complex; Centeril H; Dermocinetic; Dermoprol†; Edeven; Essaven; Flavion; Flebo-S†; Flebolider; Flodolor; Fogofort; Flavogis IdroGel; Hirudex†; Inflammase; Inflammase Idro-Gel; Levital Plus; Muscoril Trauma; Osmogel; Pk Gel; Proctonet†; Proctopure; Proctosedyl; Recto-Reparil; Reparil; RepaVen†; Sedalen Cort†; Sedilene Procto†; Signum; Snell Cell; Somatoline; Varicogel†; Venactive; Venalta; Venoplast†; Venoton; Venotrauma†; **Malaysia:** Proctosedyl; Proctosone†; **Mex.:** Almodin; **Mon.:** Fluon; **Norw.:** Proctosedyl; **Philipp.:** Proctosedyl; **Pol.:** Aesculan; Anavenol; Arcalen; Amisol; Emorect; Escalar; Fitoven; Hemorol; Neo-Aesculan; Proctosone; Reparil N; Sapoven AT; Sapoven T; Savarix; Venacorn; Venescin; Venoforton; Venozel; **Port.:** Relmus Compositum†; Synthrocell; Venoparil; **Rus.:** Aescusan (Эскусан); Anavenol (Анавенюл); **S.Afr.:** Essaven†; Proctosedyl; Reparil; Stibium Comp; **Singapore:** Erase; Proctosedyl; **Spain:** Caprolides Hemostatico; Contusin; Essavenon; Reparil; Hemodren Compositum†; Roidhemo†; Ruscime†; Urogenin; Venacol; **Swed.:** Proctosedyl†; **Switz.:** Augmentonum; Demoven N; Dolo-Vent†; Flavoven†; Fogecyl; Ispasin; Lapidar 4; Phlebostasin compositum†; Reparil; Strath; Gouttes pour les veines; Suppositoires contre les hemorrhoides†; Veno-Gouttes-N†; Venoplast comp; Venoplast-N†; **Thai.:** Essaven; Proctosedyl; Reparil; Veno Gel; **Turk.:** Prepagel; **Venez.:** Gelsm.

Afelimomab (rINN)

Afelimomab; Afelimomabum; MAK-195F. Immunoglobulin G3, anti-(human tumor necrosis factor α) F(ab')₂ fragment (mouse monoclonal LU54107 γ 3-chain), disulfide with mouse monoclonal LU54107 κ -chain, dimer.

Афелимомаб

CAS — 156227-98-4.

ATC — L04AB03.

ATC Vet — QL04AB03.

Profile

Afelimomab is a monoclonal tumour necrosis factor antibody that has been investigated for the treatment of sepsis.

◇ References.

- Vincent JL. Afelimomab. *Int J Clin Pract* 2000; **54**: 190-3.
- Reinhart K, et al. Randomized, placebo-controlled trial of the anti-tumor necrosis factor antibody fragment afelimomab in hyperinflammatory response during severe sepsis: the RAMSES study. *Crit Care Med* 2001; **29**: 765-9.
- Gallagher J, et al. A multicenter, open-label, prospective, randomized, dose-ranging pharmacokinetic study of the anti-TNF- α antibody afelimomab in patients with sepsis syndrome. *Intensive Care Med* 2001; **27**: 1169-78.
- Panacek EA, et al. Efficacy and safety of the monoclonal anti-tumor necrosis factor antibody F(ab')₂ fragment afelimomab in patients with severe sepsis and elevated interleukin-6 levels. *Crit Care Med* 2004; **32**: 2173-82.