

Grape seed and grape seed extracts have been included in preparations for peripheral vascular disorders and venous insufficiency and for prophylaxis of cardiovascular disorders. Extracts of grape seed proanthocyanidins, including IH636, are being investigated for a range of other disorders in which antioxidant and free-radical scavenging activity is thought to be beneficial, including cancer prevention, hepatic disorders, radiation-induced fibrosis, cataracts, and macular degeneration, although there is currently little evidence of effectiveness.

Resveratrol, a compound present in grapes, (see p.2378) is also promoted as an antioxidant.

Grape seed oil is included in topical preparations.

The fresh and dried fruits of the grape and the leaves are used as foodstuffs.

◇ Review.

- Bombardelli E, Morazzoni P. Vitis vinifera L. *Fitoterapia* 1995; **66**: 291–317.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Viticalm; **Austria:** Antistax; Pedopur; **Braz.:** Celox; Radifree; Vinera; Vitium†; **Chile:** Endotelon; Juvenit†; Uvanox; **Cz.:** Antistax; Endotelon†; **Fr.:** Endotelon; **Ger.:** Antistax; **Hung.:** Endotelon; **Ital.:** Antistax; **Pol.:** Endotelon; **Spain:** Antistax; **Switz.:** Antistax; **UK:** Antistax.

Multi-ingredient: **Austral.:** Anthogenol; Antioxidant Forte Tablets; Bioglan Pygno-Vite; Bioglan Zellulean with Eson; Lifechange Multi Plus Antioxidant†; Pykno†; Vitanox; **Austria:** Hepatodoron; **Canad.:** Glucosamine Joint & Muscle Cream with MSM†; **Chile:** Celtech Gold; **Fr.:** A-Flam; D'Contract; Detoxell; Ditavene; Flebior; Jouvence de l'Abbe Soury†; Mediflor Tisane Circulation du Sang No 12; Ophthalmine; Opo-Veinogene; Phlebosedol†; Veinophytum†; **Ger.:** Hepatodoron; **Hong Kong:** Proflavanol†; **Indon.:** Lanaven Plus; Lycoq; Resvica; **Ital.:** Angiovein; Capili; Mirtilux; Neosulfur; Venalta; **Malaysia:** Proflavanol; **Mex.:** Proflavanol; **S.Afr.:** Hepatodoron; **Singapore:** Proflavanol; **Switz.:** Kawaform†; **UK:** Atopiclair; Xclair; **USA:** Atopiclair; Pycnogenol Plus.

Gravel Root

Joe Pye Weed; Queen of the Meadow; Raíz de eupatorio.

Profile

Gravel root is the root of *Eupatorium purpureum* (Compositae) and has diuretic, antilithic, and antirheumatic properties. It is used for renal and urinary calculus and other urinary-tract disorders, and has also been used for gout and rheumatism.

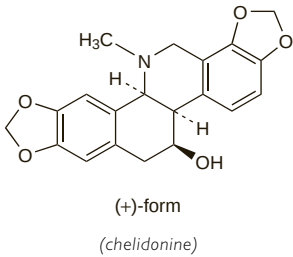
Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **UK:** Backache.

Greater Celandine

Celidonia; Chélideoine; Chelidonii herba; Chelidonium; Keltamo; Schöllkraut; Skelört; Tettenwort; Ugniāžolij žolē; Vérehulló fecskefű; Vlaš't'ovičniková nat'; Ziele glistnika.



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

Ph. Eur. 6.2 (Greater Celandine). The dried, whole, or cut aerial parts of *Chelidonium majus* collected during flowering. It contains a minimum of 0.6% of total alkaloids expressed as chelidonium ($C_{20}H_{19}NO_5 = 353.4$), calculated with reference to the dried drug.

Profile

Greater celandine has sedative and spasmolytic properties and the aerial parts are used for liver, biliary, and gastrointestinal disorders, and have also been used for respiratory-tract disorders. The latex has been used externally for warts and other skin conditions.

It has been reported to cause hepatotoxicity.

Homoeopathy. Greater celandine has been used in homoeopathic medicines under the following names: Chelidonium; Chelidonium majus; Chelidonium, Flos; Chelidonium majus e floribus; Che. maj.

Effects on the liver. References.

- Benninger J, *et al.* Acute hepatitis induced by greater celandine (Chelidonium majus). *Gastroenterology* 1999; **117**: 1234–7.
- Stickel F, *et al.* Acute hepatitis induced by Greater Celandine (Chelidonium majus). *Scand J Gastroenterol* 2003; **38**: 565–8.

The symbol † denotes a preparation no longer actively marketed

Preparations

Proprietary Preparations (details are given in Part 3)

Ger.: Aristochol CC†; Cholarist; Cholspasmin Phyto†; Gallopast†; Paverysat forte N; **Switz.:** Virulex.

Multi-ingredient: **Arg.:** Quelodin F; **Austral.:** Berberis Complex; Extralife Liva-Care; Lexatt†; Livstim†; Livton Complex†; **Austria:** Choleodoron; **Belg.:** Aporil; **Braz.:** Quelodin†; **Cz.:** Iberogast; **Fr.:** Nitrol; **Ger.:** Aristochol N†; Aristochol†; Chol-Kugeletten Neu; Chologogum F†; Chologogum N†; Chologutt-N†; Cholhepan N; Cholosom Phyto N; Cholosom SL†; Cy-narzym N†; Femisana†; Gallemolan forte; Gallemolan G†; Galloselect M†; Hepaticum-Mediche H†; Horvilan N; Iberogast; Infli-tract†; Marianon†; Nervogastrol N†; Neurochol C†; Opobyl-phyto†; Presselin Hepaticum P†; Schwohepan S†; spasmo gallo sano†; **Hong Kong:** Hepatofalk; Hepatofalk Planta; **Indon.:** Lanagogum; **Pol.:** Artecholin; Artecholwex; Chelicut; Cholavisol; Cholitol; Enterosol; Neoazarina; Sirupus Pini Compositus; Sirupus Tussipini; Sirupus Tussipini D; **Port.:** Chologutt†; **S.Afr.:** Choleodoron; **Singapore:** Hepatofalk Planta; **Spain:** Menstrunat†; Natusor Hepavesical†; Nitroina; **Switz.:** Choleodoron†; Demonatur Gouttes pour le foie et la bile; Iberogast; Stago N†; **Venez.:** Demerung.

Green-lipped Mussel

Extracto de mejillón de labios verdes.

Зеленого Губчатого Моллюска

Profile

An extract from the green-lipped mussel *Perna canaliculus* (Mytilidae), stated to contain omega-3 polyunsaturated fatty acids, amino acids, fats, carbohydrates, and minerals, has been promoted for the treatment of rheumatic disorders including rheumatoid arthritis (p.11). It has also been tried in asthma.

Rheumatic disorders. Reviews of the investigation of green-lipped mussel in the treatment of arthritis have not revealed conclusive evidence of its usefulness.^{1,2}

- Li Wan Po A, Maguire T. Green-lipped mussel. *Pharm J* 1990; **244**: 640–1.
- Cobb CS, Ernst E. Systematic review of a marine nutraceutical supplement in clinical trials for arthritis: the effectiveness of the New Zealand green-lipped mussel *Perna canaliculus*. *Clin Rheumatol* 2006; **25**: 275–84.

Preparations

Proprietary Preparations (details are given in Part 3)

Austral.: Lyprinol; **UK:** Healthieries Musselstone; Lyprinol; Mobilyzer; Oceantone; Seaton; Supplex.

Multi-ingredient: **Austral.:** Prost-I†; **Ital.:** Osteoclar; **UK:** Healthieries Musselstone & Glucosamine.

Griffonia Simplicifolia

Profile

The leaf, stem, and twigs of *Griffonia simplicifolia* (Fabaceae) have been used for a variety of disorders in its native West Africa. It is included in herbal and nutritional supplements. It is a source of lectins and has insecticidal properties.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Fr.:** Prostatietil†; Tryptonat; **Ital.:** Brioplus; Calmason; Cimil Complex.

Grindelia

Gum Plant; Gumweed; Tar Weed.

Pharmacopoeias. In *Fr.* which allows *Grindelia camporum*, *G. humilis*, *G. robusta*, and *G. squarrosa*.

Profile

Various *Grindelia* spp. (Asteraceae) have been included in herbal preparations used for respiratory-tract disorders.

Homoeopathy. Grindelia has been used in homoeopathic medicines under the following names: Grindelia robusta; Grind. ro.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Arg.:** Expectosan Hierbas y Miel; **Austral.:** Asa Tones; Euphorbia Complex; **Austria:** Paracodin; **Braz.:** Calmatoss†; Gotas Nican†; Infantoss†; Limao Bravo†; Pectal†; Xarope de Caraguatá†; Xarope Peitoral de Ameixa Composto†; Xpe SPC†; **Canad.:** Herbal Cold Relief†; **Chile:** Gotas Nican†; Ramistos; **Cz.:** Bronchicum Elixir†; Bronchicum Hustensirup†; **Fr.:** Coquelusedal; Coquelusedal Paracetamol; Dinacode†; Ephydion; Germose†; Neo-Codion; Vegetoserum; **Ger.:** Asthma 6-N†; Bronchicum Elixir N†; **Indon.:** Pectum; **Ital.:** Broncosedina; Tussany†; **Neth.:** Bronchicum; **Pol.:** Bronchicum Elixir; Echinasal; **Rus.:** Bronchicum (Бронхикум); Bronchicum Husten (Бронхикум Сироп от Кашля); Neo-Codion (Нео-Кодион); Neo-Codion Babies (Нео-Кодион Для Маленьких); **S.Afr.:** Bronchicough†; Bronchicum†; **Spain:** Pazbronqual; **Switz.:** Famei; Neo-Codion N; Nican; **Venez.:** Novacodin.

Ground Ivy

Ale-hoof; Gundelrebe; Gundermann; Hiedra terrestre; Lierre Terrestre.

Pharmacopoeias. In *Chin.* and *Fr.*

Profile

Ground ivy, the aerial parts of *Glechoma hederacea* (*Nepeta hederacea*) (Labiatae) has been used for respiratory-tract and gastrointestinal disorders.

Homoeopathy. Ground ivy has been used in homoeopathic medicines.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **UK:** Gerard House Water Relief Tablets; Water Naturatabs.

Guaiaicum Resin

Guaiaic; Guaiaicum; Guajakharz; Gwajakowa zywica; Resina de guayaco.

CAS — 9000-29-7.

Profile

Guaiaicum resin is obtained from guaiacum wood (lignum vitae; *Guaiaicum officinale* or *G. sanctum*) (Zygophyllaceae) and has been used in the treatment of rheumatism. It is used in herbal medicine.

Guaiaicum resin is used in the detection of occult blood in the faeces. The accuracy of the guaiacum test has been questioned and some drugs may interfere with the result.

Homoeopathy. Guaiaicum resin has been used in homoeopathic medicines under the following names: Guaiaicum; Guajacum; Guaic.

◇ References.

- Ko CW, *et al.* Fecal occult blood testing in a general medical clinic: comparison between guaiac-based and immunochemical-based tests. *Am J Med* 2003; **115**: 111–14.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austral.:** Boswellia Compound; Guaiaicum Complex†; **Switz.:** Pommade au Baume; **UK:** Gerard House Reumalex†; Rheumatic Pain; Rheumatic Pain Relief; Rheumatic Pain Remedy.

Guaiazulene

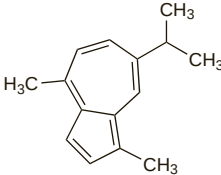
Gayazulen; Guayazuleno; Gwajazulen. 1,4-Dimethyl-7-isopropylazulene.

C₁₅H₁₈ = 198.3.

CAS — 489-84-9.

ATC — S01XA01.

ATC Vet — QS01XA01.



Profile

Guaiazulene has been reported to have anti-allergic, anti-inflammatory, antipyretic, and antiseptic properties.

Preparations

Proprietary Preparations (details are given in Part 3)

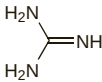
Arg.: Azulon; **Austria:** Azulen; Azulenal; Garmastan; **Cz.:** Garmastan†; Ophthamo-Azulen; **Fr.:** Azulene†; **Hung.:** Azulenol; **Turk.:** Garmastan.

Multi-ingredient: **Arg.:** Sodorant; **Austria:** Piniment; Spasmo Claim; Tampostorien mit Belladonna; Thrombocid; **Cz.:** Dermazulen; Ophthalm-Septonex; Pinosol; Pityol; Vitazulen†; **Fr.:** Cicatryl; Pepsane; **Ger.:** Azupanthenol†; Thrombocid; **Hong Kong:** Thrombocid; **Israel:** Aronal Forte; **Ital.:** Collyria†; **Mex.:** Pepsane; **Pol.:** Pinosol; **Port.:** Thrombocid; **Rus.:** Pinosol (Пиносол); **Spain:** Predni Azuleno; **Switz.:** Bain extra-doux dermatologique; Thrombocid.

Guanidine Hydrochloride

Carbamidine Hydrochloride; Guanidina, hidrocloruro de; Guanidyny chlorowodorek; Iminourea Hydrochloride. CH₅N₃.HCl = 95.53.

CAS — 113-00-8 (guanidine); 50-01-1 (guanidine hydrochloride).



(guanidine)

Profile

Guanidine hydrochloride enhances the release of acetylcholine from nerve terminals. It has been given by mouth to reverse neuromuscular blockade in patients with botulism (p.2207), but its efficacy has not been established. Guanidine hydrochloride has also been tried in Eaton-Lambert myasthenic syndrome (p.629)

and other neurological disorders, but its use has been associated with bone-marrow suppression in some patients.

References.

- Kaplan JE, *et al.* Botulism, type A, and treatment with guanidine. *Ann Neurol* 1979; **6**: 69–71.
- Critchley EMR, *et al.* Outbreak of botulism in North West England and Wales. *Lancet* 1989; **ii**: 849–53.
- Neal KR, Dunbar EM. Improvement in bulbar weakness with guanoxan in type B botulism. *Lancet* 1990; **335**: 1286–7.
- Oh SJ, *et al.* Low-dose guanidine and pyridostigmine: relatively safe and effective long-term symptomatic therapy in Lambert-Eaton myasthenic syndrome. *Muscle Nerve* 1997; **20**: 1146–52.

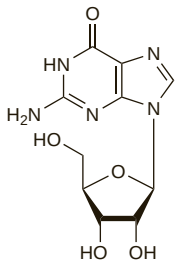
Guanosine

Guanine Riboside; NSC-19994; Vernine. 2-Amino-9-β-D-ribofuranosyl-9H-purin-6(1H)-one.

Гуанозин

C₁₀H₁₃N₅O₅ = 283.2.

CAS — 118-00-3.



Profile

Guanosine is an endogenous guanine nucleoside involved in many biological processes; it is one of the components of nucleic acids (p.2355). Guanosine is included in preparations for peripheral and cerebral vascular disorders and myopathies; guanosine monophosphate has been used similarly.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Cz.:** Laevadosin†; **Spain:** Nutracel.

Gutta Percha

Gummi Plasticum; Gutapercha; Gutt. Perch.

Pharmacopoeias. In *US*.

USP 31 (Gutta Percha). The coagulated, dried, purified latex of the trees of the genera *Palaquium* and *Payena* and most commonly *Palaquium gutta* (Sapotaceae). It occurs in lumps or blocks of variable size; externally brown or greyish-brown to greyish-white in colour; internally reddish-yellow or reddish-grey and having a laminated or fibrous appearance. It is flexible but only slightly elastic. Has a slight, characteristic odour. Insoluble in water; partly soluble in carbon disulfide, in turpentine oil, and in benzene; about 90% soluble in chloroform. Store under water. Protect from light.

Profile

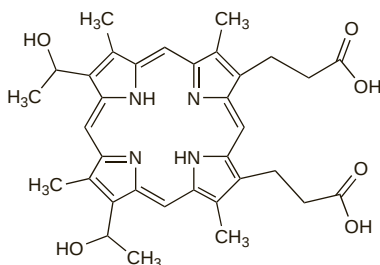
Gutta percha has been used in various dressings. In dentistry, gutta percha has been used as a filling material and as the basis of compounds for taking dental impressions.

Haematoporphyrin

Hematoporphirin.

C₃₄H₃₈N₄O₆ = 598.7.

CAS — 14459-29-1.



Profile

Haematoporphyrin is a red pigment, free from iron, obtained from haematin. It is an ingredient of preparations promoted as tonics, particularly for the elderly, and has been used in the treat-

ment of depression. Derivatives of haematoporphyrin are used as photosensitisers in the photodynamic therapy of malignant neoplasms (see Porfimer Sodium, p.764).

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** KH3; **Chile:** Actebrel; KH3-Vit†; KH3†; **Ger.:** KH3†; Revicain comp plus†; **Hong Kong:** KH3; **Ital.:** Porfin 12; Tonogen; Vit-Porphyrin†; **NZ:** KH3; **Thai.:** KH3.

Hamamelis

Amamelide; Csodamogyorólevél (hamamelis leaf); Hamamelidis; Hamamelidis folium (hamamelis leaf); Hamameliksenlehti (hamamelis leaf); Hamamélis de virginie; Hamamélis, feuille d' (hamamelis leaf); Hamamelisblad (hamamelis leaf); Hamamelij lapai (hamamelis leaf); Trollhassel; Vīlínový list (hamamelis leaf); Virginsk Troidnød; Witch Hazel; Zaubehasel; Zaubernuss.

Pharmacopoeias. In *Eur.* (see p.vii) and *US*.

Ph. Eur. 6.2 (Hamamelis Leaf). The whole or cut dried leaves of *Hamamelis virginiana* containing not less than 3% tannins, expressed as pyrogallol (C₆H₆O₃ = 126.1), calculated with reference to the dried drug. Protect from light.

USP 31 (Witch Hazel). A clear, colourless distillate prepared from recently cut and partially dried dormant twigs of *Hamamelis virginiana*. pH between 3.0 and 5.0. Store in airtight containers at a temperature not exceeding 40°.

Profile

Hamamelis has astringent properties and contains gallic acid, a bitter principle, and a trace of volatile oil. It is used in preparations for the symptomatic relief of haemorrhoids (p.1697). Hamamelis water is used as a cooling application and has been applied as a haemostatic.

Hamamelis is used in herbal preparations for a variety of disorders.

Homoeopathy. Hamamelis has been used in homoeopathic medicines under the following names: Hamamelis virginiana; Hamamelis, Folium; Hamamelis virginiana e foliis; Hamamelis virginiana ex cortice summitatibusque; Hamamelis virginica; Ham. virg.

Preparations

USP 31: Witch Hazel.

Proprietary Preparations (details are given in Part 3)

Austral.: Optrex Original; Witch Doctor†; **Austria:** Hametum; Sperti Preparation H†; **Canada:** Optrex; **Chile:** Similia†; Sperti Preparacion H Clear Gel†; **Fr.:** Optrex; **Ger.:** Aescorin N†; Fiamelis†; Haemo Duoform†; Hamasana†; Hametum; Postener; Tampositonen H†; Venoplant top†; **Ital.:** Aqua Virginiana; Derminal; Optrex; **Malaysia:** Optrex; **Mex.:** Tia Puppy; **NZ:** Optrex; **Pol.:** Phloderm; **Port.:** Optrex; **Singapore:** Optrex; **Spain:** Derminal; Hametol; Hemo Derminal; Optrex; **Switz.:** Mavena Anal-Gel; **Thai.:** Optrex; **Turk.:** Hametum; **UK:** Optrex Preparation H Clear Gel; Witch Doctor; Witch Sunore; **USA:** A-E-R; Fleet Medicated Pads†; Neutrogena Drying.

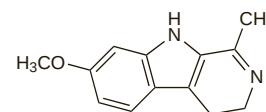
Multi-ingredient: **Arg.:** Banofal†; Clematis III Oligoplex†; Domoderin; Ecnagel; Esculeol P; Lavandula Oligoplex; Manzan; Venofut; VNS 45; **Austral.:** Anusol; Bioglan Cirlot†; Gentlees; Hemocane; Optrex; Proflo†; **Austria:** Arnice†; Inotyl†; Mirfulan; Sulgan 99; Tampositorien mit Belladonna; **Belg.:** Hemorhinol; Purigel Crisp; Rectovasal; **Braz.:** Bromidrastina†; Hemodotti; Hemorroidex†; Higicler; Malvatricin Natural Organic; Manolio†; Mironroidin†; Proctosan; Supositorio Hamamelis Composto†; Varizolt†; Visionom; **Canada.:** Onrectal; Penaten; Preparation H Cooling Gel; Tucks; **Chile:** Hemorrol†; Proctoplex; Varicare†; **Cz.:** Aviril H†; Sagittaproct†; **Fr.:** Aphloine P; Climaxol; Ekseme; Evarose; HEC; Histo-Fluine P; Inotyl†; Jouvence de l'Abbe Soury; Keracnyl eau nettoyante; Keracnyl stop bouton; Mediflor Tisane Circulation du Sang No 12; Ophthalmine; Pastilles Monleon; Phlebosedol†; Phytomelis; Purif-Ac Gel; Veinostase; **Ger.:** Aescusan; Anisan†; Chlorophyllin Salbe "Schuh"; Eulatin NN; Hametum-N†; Heusin†; Leukona-Wundsalbe†; Mirfulan; Sanaderm†; Trauma-cyl; Varicylum-S; Venacton†; Welelda Hamorroidalzapfen; **Hong Kong:** Eye Glo Plus; **Indon.:** Oculosan; **Israel:** Aforinol; Derm Care; Inotyl; **Ital.:** Altacura Ipragocce; Centella Complex; Centeril H; Decon Ovuli; Dermila Flebozin; Dermatina; Dermoprolin†; Eulux; Ginoxil Ecoschiuma; Hamamilla†; Herber†; Inotyl†; Intim; Iridil; Lycia Luminique; Nevnil; Proctonet†; Proctopore; Sacnel; Salviette H; Sedalen Cort†; Sedilene Procto†; Steril Zeta; Stilmagici†; Varicogel†; Venactive; Venalta; Venoplus†; Venotrauma†; **Mex.:** Almodin; Prespir; Supranettes Naturalag; **Mon.:** Fluon; **NZ:** Lacto Calamine†; Optrex Red-Eye Relief†; **Port.:** Hemofissural; **S.Afr.:** Lacto Calamine†; Loto Pruni Comp cum Cupro; Stibium Comp; **Singapore:** HEC†; Stop-Itch Plus; **Spain:** Banofal†; Hemodren Compuesto†; Lamotyl†; Ojosbel; Roid-hemo†; Ruscimel†; Solucion Schoum; Venofit; **Switz.:** Anal-Gen†; Collypan; Euproctol N; Frigoplasma†; Haemocortin; Haemolan; HEC; Mavena Proctal-Gen; Oculosan; Optrex compresses; Pommade Nasale Radix†; Riccovant†; Suppositoires contre les hemorrhoides†; Tendro; **Thai.:** Opplin†; **UK:** Adiantine; Eye Dew; Heemex; Lacto Calamine; Modern Herbs Pile; Optrex Red Eyes; Swarm; Tea Tree & Witch Hazel Cream; Vancose Ointment; Vital Eyes; **USA:** Clearasil Double Clear; Preparation H Cooling Gel; Tucks; **Venez.:** Biomicov†; Camolyn; Camolyn Plus; Flucirac; Supranettes†.

Harmaline

Harmalina. 3,4-Dihydroharmine.

C₁₃H₁₄N₂O = 214.3.

CAS — 304-21-2.



Description. Harmaline is an alkaloid obtained from peganum, the dried seeds of *Peganum harmala* (Zygophyllaceae). The following terms have been used as 'street names' (see p.vi) or slang names for various forms of harmaline or preparations containing harmaline: Caapi; Huasca; Purga, la; Vine; Yage.

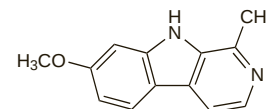
Harmine

Harmina; 7-Methoxy-1-methyl-9H-pyrido[3,4-b]indole.

Хармин

C₁₃H₁₂N₂O = 212.2.

CAS — 442-51-3.



Description. Harmine is an alkaloid obtained from peganum, the dried seeds of *Peganum harmala* (Zygophyllaceae), also known as syrian rue. Harmine is identical with an alkaloid known as banisterine or telepathine obtained from *Banisteriopsis caapi* (Malpighiaceae). The following terms have been used as 'street names' (see p.vi) or slang names for various forms of harmine or preparations containing harmine: Rue.

Profile

Harmine and harmaline are the main active principles of a hallucinogenic drink, known in South American regions as 'ayahuasca', 'caapi', or 'yagé', that is made from closely related plants of the family Malpighiaceae. They have no therapeutic use.

Helonias

Blazing Star; Chamaelirium; False Unicorn; Starwort.

Profile

Helonias is the root of *Chamaelirium luteum* (*Helonias dioica*) (Liliaceae). It is used in herbal medicine particularly for gynaecological disorders.

Homoeopathy. Helonias has been used in homoeopathic medicines under the following names: Chamaelirium luteum; Helonias dioica; Helon.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austral.:** Capsella Complex; Nervatona Calm; Nervatona Focus; **UK:** Period Pain Relief.

Henna

Henna Leaf; Henné; Lawsonia.

Profile

Henna is the dried leaves of *Lawsonia inermis* (*L. alba*) (Lythraceae), containing lawsone (p.2331). Powdered henna is used for dyeing the hair, skin, and nails.

Adverse effects. Allergic skin reactions to henna used to dye the skin have been reported.¹ Such reactions were usually due to additives used to shorten the application time of the dye and allergic reactions to 'plain' henna were rare. Similar reactions have been reported²⁻¹⁰ after henna tattoos on the skin. The adulterant, which is added to natural henna to darken it ('black henna'), was identified²⁻⁵ as paraphenylenediamine (p.2363). There have been reports of the paraphenylenediamine adulterant producing permanent skin pigment changes^{7,10} and also cross-sensitisation to paraphenylenediamine-containing hair dyes⁷⁻¹⁰ and textile dyes;¹⁰ there is also the possibility of sensitisation to other allergens such as natural rubber latex.¹⁰

The suggestion that henna may cause neonatal hyperbilirubinaemia is discussed under Lawsone, p.2331.

- Lestringant GG, *et al.* Cutaneous reactions to henna and associated additives. *Br J Dermatol* 1999; **141**: 598–600.
- Brancaccio RR, *et al.* Identification and quantification of paraphenylenediamine in a temporary black henna tattoo. *Am J Contact Dermat* 2002; **13**: 15–8.
- Marcoux D, *et al.* Sensitization to para-phenylenediamine from a street-side temporary tattoo. *Pediatr Dermatol* 2002; **19**: 498–502.