

Esalmogress; Hiosinotil Compuesto†; Hiosultrina-F; Infafren Compuesto; Neo-Pasmonal; Ortran†; Pramodil; Pirobutil; Precicol; Prestodol Compuesto; Retodol Compositum; Selpiran; Selpiran Compuesto; Serrapina Compuesta; Viladol Plus; **Philipp.**: Buscopan Plus; **Pol.**: Scopolan Compositum; Vegantalgin H; **Port.**: Buscopan Compositum N; **S.Afr.**: Buscopan Compositum; Donnatal; Millerspas; Respirol; Respirol Compound; Scopex Co; Virobis†; **Spain**: Buscapina Compositum; Midriati; Noliolol Compositum†; Oragalin Espasmolítico; Psico Blocan; **Swed.**: Spasmofen; **Switz.**: Nardyl; **Thai.**: Amcopan Plus; Buscopan Plus; Donnatal†; Pacopan; Spasgone; Unigan; **Turk.**: Buscopan Compositum; Molit Plus; Skopolin; Spazmol Plus; Tanko-Buskas; Tranko-Buskas; **UK:** Feminax; **USA:** Accuhist LA†; AeroHist Plus; AeroKid; AH-chew; Alkabel; AllePak; AlleRx; Antispasmodic Elixir; Barbidonna†; Bellahist-D; Bellatal; Chlor-Mes; Chlor-Mes D; CPM PSE MSC; CPM/PE/MSC; DA Chewable; DA II; Dallery; Dehistine; Dexphen M; Donnatal; DriHist; Dura-Vent/DA; Durahist; Durahist D; Ex-Histine; Extendryl; Extendryl DM†; Extendryl PEM; Hista-Vent DA; Histatab D; Histo-D Time-celles; Hyosphen; Mescolor†; Murocoll-2; Nacon; NoHist Plus; Norel DM†; Omnistat LA; Pamine FQ Kit; Pannaz; PCM; Prehist; PSE MSC; Ralix; Redur-PCM; Relcof PSE; Rescon-MX; Rynex; Stahist; Susano; Xiral†; **Venez.**: Brugesina; Buscapina Compositum; Buscapina Plus; Butilamina Compuesta; Diezol Compuesto†; Fenopol†; Hioscinol Compuesto†; Sarfan Compuesto†; Vuscobras.

Hyoscyamine (BAN)

Hiosciamina; Hyoscyamin; (-)-Hyoscyamine; *l*-Hyoscyamine; Hyoscyaminum; Hyoskyamiini. (-)-(1*R*,3*r*,5*S*)-Tropan-3-yl (5)-tro-pate.

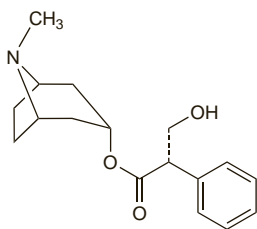
ГИОСЦИАМИН

$C_{17}H_{23}NO_3 = 289.4$.

CAS — 101-31-5.

ATC — A03BA03.

ATC Vet — QA03BA03.



Description. Hyoscyamine is an alkaloid obtained from various solanaceous plants. It is the laevo-isomer of atropine into which it can be converted by heating or by the action of alkali.

Pharmacopoeias. In *US*.

USP 31 (Hyoscyamine). A white crystalline powder. M.p. 106° to 109°. Slightly soluble in water and in benzene; freely soluble in alcohol, in chloroform, and in dilute acids; sparingly soluble in ether. Its solutions are alkaline to litmus. Store in airtight containers. Protect from light.

Hyoscyamine Hydrobromide (BANM)

Bromidato de Hiosciamina; Hiosciamina, hidrobromuro de; Hyoscyamine Bromhydrate.

ГИОСЦИАМИНА Гидробромид

$C_{17}H_{23}NO_3 \cdot HBr = 370.3$.

CAS — 306-03-6.

ATC — A03BA03.

ATC Vet — QA03BA03.

Pharmacopoeias. In *US*.

USP 31 (Hyoscyamine Hydrobromide). White, odourless, crystals or crystalline powder. M.p. not less than 149°. Freely soluble in water; soluble 1 in 2.5 of alcohol, 1 in 1.7 of chloroform, and 1 in 2300 of ether. pH of a 5% solution in water is about 5.4. Store in airtight containers. Protect from light.

Hyoscyamine Sulfate

Hiosciamina, sulfato de; Hiosciamino sulfatas; Hyoscyaminum siarczan; Hiosziamin-szulfát; Hyoscyamin sulfát dihydrát; Hyoscyamine, sulfate d'; Hyoscyamine Sulphate (BANM); Hyoscyamini sulfas; Hyoscyamini Sulfas Dihydricus; Hyoscyaminsulfat; Hyoscyaminum Sulfuricum; Hyoskyamiinisulfatti; Iosciamina Solfato.

ГИОСЦИАМИНА Сульфат

$(C_{17}H_{23}NO_3)_2 \cdot H_2SO_4 \cdot 2H_2O = 712.8$.

CAS — 620-61-1 (anhydrous hyoscyamine sulfate); 6835-16-1 (hyoscyamine sulfate dihydrate).

ATC — A03BA03.

ATC Vet — QA03BA03.

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

Ph. Eur. 6.2 (Hyoscyamine Sulphate). A white or almost white, crystalline powder or colourless needles. Very soluble in water; sparingly soluble or soluble in alcohol. A 2% solution in water has a pH of 4.5 to 6.2. Store in airtight containers. Protect from light.

USP 31 (Hyoscyamine Sulfate). A white or almost white, crystalline powder or colourless needles. It is deliquescent and affect-

ed by light. Soluble 1 in 0.5 of water and 1 in 5 of alcohol; practically insoluble in ether. pH of a 1% solution in water is about 5.3.

Adverse Effects, Treatment, and Precautions

As for Atropine Sulfate, p.1219.

Interactions

As for antimuscarinics in general (see Atropine Sulfate, p.1220).

Uses and Administration

Hyoscyamine is a tertiary amine antimuscarinic with the actions of atropine (which is racemic hyoscyamine, see p.1219); hyoscyamine, the laevo-isomer, has about twice the potency of atropine since the dextro-isomer has only very weak antimuscarinic activity. Hyoscyamine is used mainly in the relief of conditions associated with visceral spasm. It has also been given for rhinitis and was formerly used in the treatment of parkinsonism.

Hyoscyamine is given in usual doses of 150 to 300 micrograms up to four times daily by mouth, but it is more usually employed as the sulfate; the hydrobromide is also used. Suggested doses of hyoscyamine sulfate are 125 to 250 micrograms orally or sublingually every four hours as needed, up to a maximum of 1.5 mg in 24 hours. Modified-release oral preparations of hyoscyamine sulfate are available in some countries; dosage is specific to a particular formulation. Hyoscyamine sulfate has also been given by injection.

Preparations

USP 31: Hyoscyamine Sulfate Elixir; Hyoscyamine Sulfate Injection; Hyoscyamine Sulfate Oral Solution; Hyoscyamine Sulfate Tablets; Hyoscyamine Tablets.

Proprietary Preparations (details are given in Part 3)

Canad.: Levisin†; **Denm.:** Egazil; **Fin.:** Egazil†; **Fr.:** Duboisine†; **Hong Kong:** Levisin; **Norw.:** Egazil; **Swed.:** Egazil; **USA:** A-Spas†; Anaspaz; Cystospaz; Donnamar; ED-SPAZ; Gastrofed; IB-Stat; Levbid; Levisin; Levisinex; Mar-Spas; Neosol; NuLev; Symax.

Multi-ingredient: **Austral.:** Donnage; **Donnalx; Donnatab; Braz.:** Analverin†; Neogreïn; Ormigrein; Tropinal; **Cz.:** Solutan†; **Indon.:** Aludonna; **Feminax; Ital.:** Antispasmina Colica; **S.Afr.:** Donnatal; **Millerspas; Switz.:** Nardyl; **Thai.:** Donnatal†; **USA:** Accuhist LA†; Alkabel; Antispasmodic Elixir; Atrostep; Barbidonna†; Bellacane; Bellahist-D; Bellatal; Dolsted†; Donnatal; Hyosphen; MHP-A; MSP-Blur; Phenazopyridine Plus; Prosed/DS; Pyridium Plus; Stahist; Susano; Trac Tabs 2X†; Trelrium Plus; UAA; Urelief Plus; Urelle; Uretiron; Uridon Modified†; Urimar-T; Urimax; Urised; Uriseptic; UrSym†; Uritact; Uro Blue; Urogestic Blue; Utria.

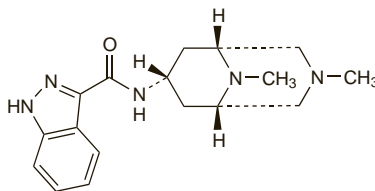
Indisetrone Hydrochloride (rINN)

Hidrocloreto de indisetrón; Indisetrón, Chlorhydrate d'; Indisetrone Dihydrochloride; Indisetrone Hydrochloridum; N-3389. N-(3,9-Dimethyl-endo-3,9-diazabicyclo[3.3.1]non-7-yl)-1*H*-indazole-3-carboxamide dihydrochloride.

Индисетрона Гидрохлорид

$C_{17}H_{23}N_5O_2 \cdot 2HCl = 386.3$.

CAS — 141549-75-9 (indisetrone); 160472-97-9 (indisetrone dihydrochloride).



(indisetrone)

Profile

Indisetrone is a 5-HT₃-receptor antagonist with general properties similar to those of ondansetron (p.1756); it is also stated to be an antagonist at 5-HT₄ receptors. Indisetrone hydrochloride is used as an antiemetic in the management of nausea and vomiting associated with chemotherapy.

Ipomoea

Ipomoea Root; Mexican Scammony Root; Orizaba Jalap Root; Scammony Root.

Ипомея

Ipomoea Resin

Ipomoea, resina de; Mexican Scammony Resin; Scammony Resin. CAS — 9000-34-4.

Profile

Ipomoea is the dried root of *Ipomoea orizabensis* (Convolvulaceae). Ipomoea resin is a mixture of glycosidic resins obtained from ipomoea and it has a drastic purgative and irritant action. It has been superseded by less toxic laxatives.

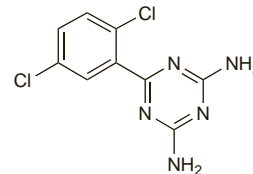
Irsogladine Maleate (rINN)

Irsogladine, Maléate d'; Irsogladini Maleas; Maleato de irsogladina; MN-1695. 2,4-Diamino-6-(2,5-dichlorophenyl)-5-triazine maleate.

Ирсогладина Малéат

$C_9H_7Cl_2N_5 \cdot C_4H_4O_4 = 372.2$.

CAS — 57381-26-7 (irsogladine); 84504-69-8 (irsogladine maleate).



(irsogladine)

Profile

Irsogladine maleate is a cytoprotective drug that is used in the treatment of peptic ulcer disease (p.1702) in a usual oral dose of 4 mg daily. It has also been investigated for mucositis and mouth ulceration.

Mucositis. Irsogladine maleate 2 mg twice daily by mouth has been reported¹ to reduce the incidence of aphthous stomatitis in a small study in patients being treated with methotrexate for rheumatoid arthritis.

1. Yoshida T, Hirakata M. Therapeutic benefits of irsogladine maleate on aphthous stomatitis induced by methotrexate in rheumatoid arthritis. *J Rheumatol* 2003; **30**: 2082-3.

Preparations

Proprietary Preparations (details are given in Part 3)

Jpn: Gaslon N.

Isopropamide Iodide (BAN, rINN)

Ioduro de isopropamida; Isopropamide, Iodure d'; Isopropamidum Iodidum. (3-Carbamoyl-3,3-diphenylpropyl)di-isopropylmethylammonium iodide.

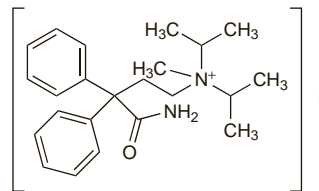
Изопропамид Иодид

$C_{23}H_{33}IN_2O = 480.4$.

CAS — 7492-32-2 (isopropamide); 71-81-8 (isopropamide iodide).

ATC — A03AB09.

ATC Vet — QA03AB09.



Pharmacopoeias. In *US*.

USP 31 (Isopropamide Iodide). A white to pale yellow crystalline powder. Soluble 1 in 50 of water, 1 in 10 of alcohol, and 1 in 5 of chloroform; very slightly soluble in ether and in benzene. Protect from light.

Profile

Isopropamide iodide is a quaternary ammonium antimuscarinic with peripheral effects similar to those of atropine (p.1219). It has been used as an adjunct in the treatment of peptic ulcer disease, in the relief of gastrointestinal and urinary-tract disorders associated with smooth muscle spasm, in rhinitis, and for the relief of symptoms of colds.

Isopropamide bromide has been used similarly.

Preparations

USP 31: Isopropamide Iodide Tablets.

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Arg.:** Plidex†; **Braz.:** Omatrol†; **Canad.:** Stelabid†; **Ital.:** Raffreddoremed; Valtrax; **Mex.:** Stelabid.