

Clotrimazole (BAN, USAN, rINN)

Bay-5097; Clotrimazol; Clotrimazolium; FB-5097; Klotrimatsoli; Klotrimazol; Klotrimazolas; Klotrymazol. 1-(α -2-Chlorotriptyl)imidazole.

Клотримазол

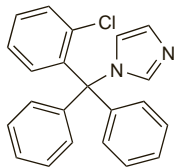
$C_{22}H_{17}ClN_2 = 344.8$.

CAS — 23593-75-1.

ATC — A01AB18; D01AC01; G01AF02.

ATC Vet — QA01AB18; QD01AC01; QG01AF02;

QJ02AB90.



NOTE. Compounded preparations of clotrimazole may be represented by the following names:

- Co-climason (PEN)—clotrimazole and betamethasone dipropionate.

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

Ph. Eur. 6.2 (Clotrimazole). A white or pale yellow crystalline powder. Practically insoluble in water; soluble in alcohol and in dichloromethane. Protect from light.

USP 31 (Clotrimazole). A white to pale yellow, crystalline powder. Practically insoluble in water; freely soluble in alcohol, in acetone, in chloroform, and in methyl alcohol. Store in airtight containers.

Adverse Effects and Precautions

Nausea, vomiting, unpleasant mouth sensations, and pruritus have been reported after the use of oral clotrimazole lozenges. Raised liver enzyme values have also occurred. Local reactions including irritation and a burning sensation may occur in patients treated topically; contact allergic dermatitis has been reported.

Intravaginal preparations of clotrimazole may damage latex contraceptives and additional contraceptive measures are therefore necessary during local application.

Gastrointestinal disturbance, elevation of liver enzymes, dysuria, and mental depression have been reported after oral clotrimazole (although this route is no longer used). For a discussion of the caution needed when using azole antifungals during pregnancy, see under Pregnancy in Precautions of Fluconazole, p.532.

Antimicrobial Action

Clotrimazole is an imidazole antifungal with antimicrobial activity similar to that of ketoconazole (p.539).

Pharmacokinetics

When applied topically clotrimazole penetrates the epidermis but there is little if any systemic absorption. Absorption of 3 to 10% of a dose has been reported after vaginal use. Clotrimazole is metabolised in the liver to inactive compounds and excreted in the faeces and urine.

Uses and Administration

Clotrimazole is an imidazole antifungal used topically in superficial candidiasis (p.518), and in the skin infections pityriasis versicolor and dermatophytosis (see Skin Infections, p.521). Clotrimazole may also be used occasionally for symptomatic relief of the protozoal infection trichomoniasis when other drugs are contra-indicated (see p.827).

Clotrimazole is applied topically two or three times daily for 2 to 4 weeks as a 1% cream, lotion, spray, or solution in the treatment of fungal skin infections; a 1% powder may be used with the cream or solution and has been applied to prevent re-infection. The 1% solution is also used topically for fungal otitis externa. Clotrimazole is given as pessaries in dosage regimens of 100 mg for 6 days, 200 mg for 3 days, or a single dose of 500 mg in the treatment of vulvovaginal candidiasis;

similar doses are given as a 1, 2, or 10% vaginal cream. It may be necessary to treat balanitis in male partners concurrently.

For the treatment of oropharyngeal candidiasis one 10-mg lozenge of clotrimazole is dissolved in the mouth five times daily for 14 days. For the prophylaxis of oropharyngeal candidiasis in patients receiving immunosuppressant therapy the dose is one 10-mg lozenge three times daily for the duration of the immunosuppressant treatment. Clotrimazole has also been given orally but has now been largely superseded by other azole drugs.

Sickle-cell disease. Oral clotrimazole has been investigated for the treatment of sickle-cell disease (p.1044).

1. Brugnara C, *et al.* Therapy with oral clotrimazole induces inhibition of the Gardos channel and reduction of erythrocyte dehydration in patients with sickle cell disease. *J Clin Invest* 1996; **97**: 1227–34.

Preparations

BP 2008: Clotrimazole Cream; Clotrimazole Pessaries;

USP 31: Clotrimazole and Betamethasone Dipropionate Cream; Clotrimazole Cream; Clotrimazole Lotion; Clotrimazole Lozenges; Clotrimazole Topical Solution; Clotrimazole Vaginal Tablets.

Proprietary Preparations (details are given in Part 3)

Arg.: Afloxin; Clotri-Q; Clotrix; Empecid; Eximius; Ikolan†; Klomazole; Livomil; Medifungol; Micoclin; Micomax; Micomazol; Micomazol Deo; Micosep; Micosep B; Micotrim; Mycanden; Panmicol; Sinfung; Trimazol; **Austral.:** Canesten; Chemists Own Clozole; Clofeme; Clonea; Clotreme†; Femizol; Gyne-Lotrimin†; Tinaderm Extra; Topizol; **Austria:** Candibene; Canesten; Myko Cordes; Pedikuro†; **Belg.:** Canestene; Gyne-Canestene†; **Braz.:** Antimicótico Martel; Canesten; Clomazen; Clomazol; Clotigen; Clotren; Clotrimid; Clotrimix†; Clotrizan; Dermobene; Gino-Canesten; Gino-Clotrimix; Kinasten; Miclonazol; Micosten†; Micotrat; Micotrizol†; Neo Clotrimazol; **Canada:** Canesten; Clotrimadem; **Chile:** Arnela; Axazol; Canesten; Cestop†; Clotrimin; Cotrisan; Creminem; Fungal; Gynocanesten; Konifungil; Labotero†; Novacetol; Telugren; **Cz.:** Aknecolor; Baycuten; Candibene; Canesten; Canifug; Imazol; Jenamazol; Plimycol†; **Denm.:** Canesten; **Fin.:** Canesten; **Ger.:** Antifungol; Aru C†; Azutrimazol†; Benzoderim Myco†; Candazol†; Canesten; Canifug; Cloderm; Clotrigalen; cutistad†; durafungol; Fungiderm; Fungizid; Gilt; Gyne-Canesten†; Hoflungin†; Jenamazol†; KadeFungin; Mycofug; Myko Cordes; Mykofungin; Mykohaug; Ovis Neuf†; SD-Hermal; Uromykol; **Gr.:** Canesten; Factodin; **Hong Kong:** Aristen; Canesten; Clocreme; Clotri-Denk; Clozole; Cotren; Fungizid†; Gyne-Lotremim; Kamicin; Lotremim; Mycoril; Tricloderm; Warimazol†; **Hung.:** Candibene; Canesten; Canifug; **India:** Candid; Clopic; Clozol; Imidil; Mycofid; Mycoderm-C; Surfaz; **Indon.:** Bernesten; Canesten; Clonita; Fungiderm; Gyne-Lotremim; Kranos; Lotremim; Medisten; Trimadan; **Irl.:** Canesten; **Israel:** Agisten; Baby Agisten; Clotrimadem; Myco-Hermal; Oralten Troche; **Ital.:** Antimicótico; Canesten; Gyne-Canesten; **Malaysia:** Candazole; Candid; Canesten; Clomazole; Cotren†; Fungicip; Gyne-Lotremim; Gynostatium†; Loriderm†; Lotremim; Micoter†; Trimazol†; **Mex.:** Altenal; Baycuten; Candimol; Candiphen; Canesten; Cinabel†; Clocan; Clomacin; Dermasten; Euroderm; Liferzol; Lomecan V; Lonestin†; Lotrimin; Tenescan; **Neth.:** Canesten; Parvemaxol; **Norw.:** Canesten; **NZ:** Canesten; Clotreme; Clomazol; Clotrihexal; Clotrimadem; **Philipp.:** Candid V6; Canesten; Cloxy; Gixaderm; Gynesol; Valf; **Pol.:** Canesten; **Port.:** Candid†; Canesten; Diomic†; Gino-Canesten; Gino-Lotremim; Lotremine; Micolysin; Nalibix; Pan-Fungex; **Rus.:** Amyclon (Амиклон)†; Antifungol (Антифунгол); Candibene (Кандибене); Candid (Кандид); Candid V6 (Кандид В6); Canesten (Канестен); **S.Afr.:** A-Por; Canalba; Candaspor; Candizole; Canesten; Canex; Clostrip; Covospor; Fungispor; Gyne-Trimazole†; Medaspor; Micomisan; Mycoban†; Mycolxal; Normospor; Stiemazol; Trimaze; Xeraspor; **Singapore:** Candazole; Canesten; Cotren; Cris-tan; Gyne-Lotremim†; Lotremim†; Myco-Hermal; Mycoril; Sastid Anti-Fungal; Vanesten†; **Spain:** Canesten; Fungidermo; Gine Canesten; **Swed.:** Canesten; **Switz.:** Acnecolor; Canestene; Corisol; Eurosan†; Fungotox; Gromazol; Gyne-Canesten; Imazol; Undex; **Thai.:** Caginal; Canadine†; Canazol; Candazole; Candid; Candinox; Canesten; Chingazol; Clotrij†; Clotricin; Comat; Cotren; CST; Defungo; Dermaten; Fango Cream; Fungicon; Fungiderm; Gynebo; Kanezin; Klamacin; Manomazole; Mycoderm-C; Mycozole; Nestic; Taraten; Vamazole; Vanesten; Zema; **Turk.:** Canesten; Clozol; Fungosten; Gyne-Canesten; **UK:** Abtrin†; Candiden†; Canesten; Canesten Combi; Fungederm; Privacom†; **USA:** Gyne-Lotrimin; Lotrimin; Lotrimin AF; Mycelex; Mycelex-7; **Venez.:** Canesten; Clortilen; Clotrizol; Fugolin; Ginnolotricomb; Gyne Canesten; Imazol; Ipalat; Lecibis†; Micozol; Oxisol†; Polik.

Multi-ingredient: **Arg.:** Becortin; Calmurid; Cortispec; Dermovit†; Empecid Cort; Hongal; Lotricomb; Micomazol B; Quadriderm; Quiaocort G Plus; Vagamer†; Vagisan Compuesto; Vitacortil; **Austral.:** Canesoral Duo; Hydrozole; **Austria:** Myko Cordes; **Belg.:** Lotrimid; **Braz.:** Baycuten; **Canada:** Lotriderm; **Chile:** B-Labotero†; Baycuten; Cestop B†; Clotrimin-B; Creminem-B; Cutanil; Donomix; Locrim; Lotriderm; Novadrel; Novamela; Telugren Plus; Tribesona; **Cz.:** Imacort; Imazol Plus; Lotriderm†; **Denm.:** Clotrasan; **Fr.:** Triazol†; **Ger.:** Antifungol; Baycuten HC; Baycuten†; Canesten HC†; Fungidexan; Imazol; Imazol comp; Lotricomb; Myko Cordes Plus; **Hong Kong:** Becogem; Canesten HC; Clobet-G; Clotrinolon; Derzid-C; Lozopin; Synco-CFN; Triderm; **India:** Candidotic; Candid B; Candid Ear Drops; Candid-TV; Candiderma +; Candiderma†; Cloben-G; Clopic B; Clopic NB; Clomycin; Cutinorm†; Fourderm AF; NC-Derm; Neocip FC; Otek-AC†; Sigmaderm; Sofradex-F; Surfaz; Surfaz-SN; Translipo-Triple; **Indon.:** Baycuten-N; Heltislin; Lotrimid; **Irl.:** Canesten HC; Lotriderm; **Israel:** Agisten with Aloe Vera; Clotrisone; Hydroagisten; Polycutan; Tevacutan; Triderm; **Ital.:** Desamix Effe; Meclon; **Malaysia:** Baycuten N; Betamethasone Clo; Candacort; Triderm-C; **Mex.:** Barmicil Compuesto; Baycuten N; Beglogen; Bextrigen; Clotricin; Gelmicin; Miclobet; Prubagen; Quadriderm NF; Triderm; Xyloderm; **NZ:** Lotricomb†; **Philipp.:** Baycuten; Candibec; Clotrasone; Triderm; **Pol.:** Lotriderm; Triderm; **Port.:** Baycuten; Beta-Micoter; Flotiran; Quadriderm; **Rus.:** Akriderm GK (Акридерм ГК); Candidiotic (Кандибиотик); Candid B (Кандид В); Metrogl Plus (Метрогил Плюс); Triderm (Тридерм); **S.Afr.:** Lotriderm; **Singapore:** Candacort; Canesten HC; Clotrasone†; Combiderm; Gentriderm; Gentrison; Modaderm; Neoderim; Triderm; **Spain:** Beta Micoter; Clotrasone; **Switz.:** Imacort; Imazol; Triderm; **Thai.:** Bacda-B; Canasone†; Canazol-BE; Candacort; Clotrasone†; Derzid-C; Fango-B; Fungicon; Fungiderm-B; Gyne-B; Gynezin; Myda-B; Myrazole-B; Twina; **Turk.:** Imazol; **UK:** Canesten HC; **USA:** Lotrisone; **Venez.:** Baycuten N; Lotricomb; Lotrisone; Triderm.

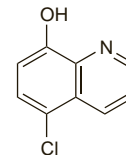
Cloxiquine (rINN)

5-Chloro-8-hydroxyquinoline; Cloxiquina; Cloxiquinum; Cloxyquin (USAN); 5-Chloroquinolin-8-ol.

КЛОКСИКИН

$C_9H_6ClNO = 179.6$.

CAS — 130-16-5.

**Profile**

Cloxiquine has been included in preparations used topically for the treatment of fungal and bacterial skin infections. It is a component of halquinol, p.286.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: **Austria:** Decoderm trivalent; **Indon.:** Decoderm 3; **Thai.:** Supracortin 3†.

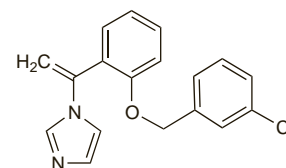
Croconazole Hydrochloride (rINNM)

Cloconazole Hydrochloride; Croconazol, Chlorhydrate de; Croconazoli Hydrochloridum; Hidrocloruro de croconazol; 710674-S (croconazole). 1-(1-{{(m-Chlorobenzyl)oxy}phenyl}vinyl)imidazole hydrochloride.

Кроконазола Гидрохлорид

$C_{18}H_{15}ClN_2O.HCl = 347.2$.

CAS — 77175-51-0 (croconazole).



(croconazole)

Pharmacopoeias. In *Jpn.*

Profile

Croconazole is an imidazole antifungal used topically in the treatment of superficial cutaneous candidiasis, dermatophytosis, and pityriasis versicolor. It is applied as a 1% cream or gel containing the hydrochloride.

For a discussion of the caution needed when using azole antifungals during pregnancy, see under Pregnancy in Precautions of Fluconazole, p.532.

Preparations

Proprietary Preparations (details are given in Part 3)

Austria: Pilzcin; **Ger.:** Pilzcin; **Jpn.:** Pilzcin.

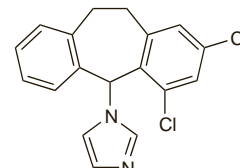
Eberconazole Nitrate (rINNM)

Éberconazole, Nitrate de; Eberconazoli Nitras; Nitrato de eberconazol. (±)-1-(2,4-Dichloro-10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-yl)imidazole nitrate.

Эберконазола Нитрат

$C_{18}H_{14}Cl_2N_2.NO_3 = 391.2$.

CAS — 128326-82-9 (eberconazole).



(eberconazole)

Profile

Eberconazole nitrate is an imidazole antifungal used topically as a 1% cream in the treatment of superficial fungal infections of the skin.