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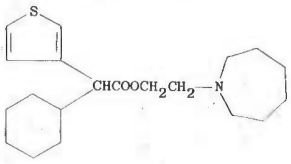
2-(hexahydro-1H-azepin-1-yl)ethyl ester; α-cyclohexyl-α-(3-thienyl)acetic acid 2-hexamethyleneiminoethyl ester. $C_{20}H_{31}NO_2S$; mol wt 349.54. C 68.72%, H 8.94%, N 4.01%, O 9.16%, S 9.17%. Prepn: Pons, Robba, **Fr.** pat. **1,460,571** and Pons *et al.*, **Fr.** pat. **M5504** (1966, 1967, both to Innothera), *C.A.* **68,** 59429d (1968); **71,** 91286c (1969). Prepn and activity: Robba, LeGuen, *Chim. Ther.* **2,** 120 (1967). Antisickling effect: T. Asakura *et al., Proc. Nat. Acad. Sci. USA* **77,** 2955 (1980); L. R. Berkowitz, E. P. Orringer, *J. Clin. Invest.* **68,** 1215 (1981).

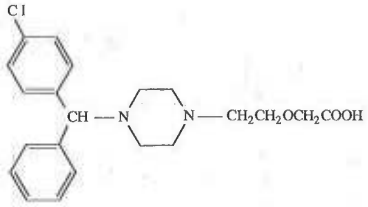


Citrate, $C_{26}H_{39}NO_9S$, *Stratene, Vasocet.* Crystals from ethanol-ether, mp 115°.

Hydrochloride, $C_{20}H_{32}ClNO_3S$, crystals from acetonitrile, mp 152° (Robba, LeGuen); also mp 143° (Pons, Robba).

THERAP CAT: Vasodilator (peripheral).

2013. Cetirizine. *[2-[4-[(4-Chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy]acetic acid;* [2-[4-(*p*-chloro-α-phenylbenzyl)-1-piperazinyl]ethoxy]acetic acid. $C_{21}H_{25}ClN_2O_3$; mol wt 388.89. C 64.86%, H 6.48%, Cl 9.12%, N 7.20%, O 12.34%. Nonsedating type histamine H_1-receptor antagonist; major metabolite of hydroxyzine, *q.v.* Prepn: E. Baltes *et al.*, **Eur.** pat. **Appl. 58,146;** *eidem,* **U.S.** pat. **4,525,358** (1982, 1985 both to UCB). Pharmacology: C. De Vos *et al., Ann. Allergy* **59,** 278 (1987); L. Juhlin *et al., J. Allergy Clin. Immunol.* **80,** 599 (1987). Clinical evaluation in asthma: A. Brik *et al., ibid.* 51. Mode of action by eosinophil inhibition: R. Fadel *et al., Clin. Allergy* **17,** 373 (1987). Clinical evaluation of antihistaminic and psychomotor effects: F. M. Gengo *et al., Clin. Pharmacol. Ther.* **42,** 265 (1987).

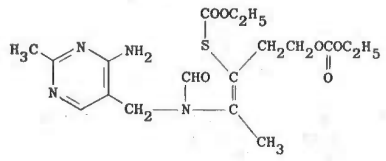


Crystals from ethanol, mp 110-115°.

Dihydrochloride, $C_{21}H_{27}Cl_3N_2O_3$, *P071, Virlix, Zirtek, Zyrtec.* Crystals from isopropanol, mp 225°.

THERAP CAT: Antihistaminic.

2014. Cetotiamine. *Thiocarbonic acid O-ethyl ester, S-ester with N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-N-(4-hydroxy-2-mercapto-1-methyl-1-butenyl)formamide ethyl carbonate (ester); O,S-*bis(ethoxycarbonyl)thiamine; *O,S-*dicarbethoxythiamine; DCET. $C_{18}H_{26}N_4O_6S$; mol wt 426.51. C 50.69%, H 6.15%, N 13.14%, O 22.51%, S 7.52%. Prepn: Takamizawa, Hirai, *Chem. Pharm. Bull.* **10,** 1102 (1962); Takamizawa *et al., ibid.* 1107; Yamamoto *et al., Bitamin* **25,** 472 (1962), *C.A.* **60,** 9773e (1964); **Brit.** pat. **944,641** (1963 to Shionogi).

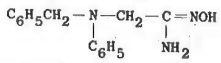


Prisms from ethyl acetate + petr ether, mp 113.5-114.5°.

Hydrochloride monohydrate, $C_{18}H_{27}ClN_4O_6S.H_2O$, *dicethiamin, Dicetamin.* Crystals from ethyl acetate, dec 122-124°. Sol in water, methanol. Practically insol in ether, benzene.

THERAP CAT: Vitamin B_1 source.

2015. Cetoxime. *N-Hydroxy-2-[phenyl(phenylmethyl)-aminoJethanimidamide; 2-(N-benzylanilino)acetamidoxime;* α-(*N*-benzyl-*N*-phenylamino)acetamidoxime. $C_{15}H_{17}N_3O$; mol wt 255.31. C 70.56%, H 6.71%, N 16.46%, O 6.27%. Prepd from (*N*-benzylanilino)acetonitrile via its thioamide: Benn *et al.*, **Brit.** pat. **895,495** (1962 to Boots Pure Drug).

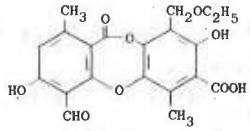


Crystals, mp 107-108°.

Hydrochloride, $C_{15}H_{18}ClN_3O$, *Febramine.* Crystals from abs alcohol + ether, mp 164-165°.

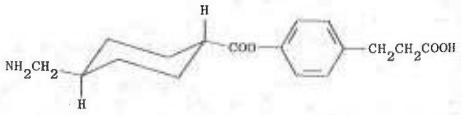
THERAP CAT: Antihistaminic.

2016. Cetraric Acid. *9-(Ethoxymethyl)-4-formyl-3,8-dihydroxy-1,6-dimethyl-11-oxo-11H-dibenzo[b,e][1,4]dioxepin-7-carboxylic acid;* cetrarin. $C_{20}H_{18}O_9$; mol wt 402.34. C 59.70%, H 4.51%, O 35.79%. From Iceland moss, *Cetraria islandica (L.)* Ach., *Parmeliaceae.* Isoln: Schnedermann, Knopp, *Ann.* **55,** 144 (1845). Structure: Asahina, Asano, *Ber.* **66,** 893 (1933).



Very bitter prisms from alcohol or acetic acid. Bitterness threshold 1:50,000. Practically insol in hot water, petr ether, benzene, ether, or in cold methanol, alc, acetone and acetic acid. Sol in aq solns of alkalies or their carbonates forming a yellow soln that turns brown on standing.

2017. Cetraxate. *4-[[[4-(Aminomethyl)cyclohexyl]carbonyl]oxy]benzenepropanoic acid; p-*hydroxyhydrocinnamic acid *trans-*(4-aminomethyl)cyclohexanecarboxylate; tranexamic acid *p-*(2-carboxyethyl)phenyl ester. $C_{17}H_{23}NO_4$; mol wt 305.38. C 66.86%, H 7.59%, N 4.59%, O 20.96%. Deriv of tranexamic acid, *q.v.* Prepn: O. Atsuji *et al., J. Med. Chem.* **15,** 247 (1972); S. Kitahara, **Japan. Kokai 73 75547** (1973 to Daiichi), *C.A.* **80,** 59727x (1974). Mechanism of action: Y. Suzuki *et al., Japan. J. Pharmacol.* **29,** 829 (1979), *C.A.* **92,** 88029 (1980). Anti-ulcer effects in rats: T. Hashizume *et al., Arch. Int. Pharmacodyn. Ther.* **240,** 314 (1979). Clinical study: A. Ishimori *et al., Arzneimittel-Forsch.* **29,** 1625 (1979); S. Yamagata, K. Miura, *ibid.* **33,** 1191 (1983).



Crystals from methanol, melts over a range of 200-280°.

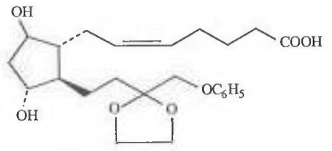
Hydrochloride, $C_{17}H_{24}ClNO_4$, *DV-1006, Neuer.* Crystals from methanol/ether, mp 238-240°.

THERAP CAT: Anti-ulcerative.

2018. Cetrimonium Bromide. *N,N,N-Trimethyl-1-hexadecanaminium bromide; hexadecyltrimethylammonium bromide;* cetyltrimethylammonium bromide; Bromat; Cetab; Cetavlon; Cetylamine; C.T.A.B.; Lissolamine V; Micol; Quamonium. $C_{19}H_{42}BrN$; mol wt 364.48. C 62.61%, H 11.62%, Br 21.93%, N 3.84%. $[CH_3(CH_2)_{15}N(CH_3)_3]Br$. Prepd from cetyl bromide and trimethylamine: Shelton *et al., J. Am. Chem. Soc.* **68,** 753 (1946). Toxicity and pharmacology: B. Isomaa, K. Bjondahl, *Acta Pharmacol. Toxicol.* **47,** 17 (1980).

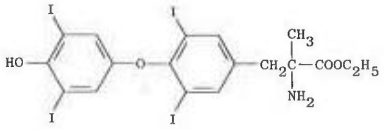
Crystals, mp 237-243°. Soluble in about 10 parts water. Freely sol in alc; sparingly sol in acetone. Practically insol

3827. Etiproston. *[1R-(1α(Z),2β(E),3α,5α]]-7-[3,5-Dihydroxy-2-[2-[2-(phenoxymethyl)-1,3-dioxolan-2-yl]ethenyl]cyclopentyl]-5-heptenoic acid;* (5Z,13E)-(8R,9S,11R,12R)-9,11-dihydroxy-15,15-ethylenedioxy-16-phenoxy-17,18,19,20-tetranorprostadienoic acid; 15-deoxy-15,15-ethylenedioxy-16-phenoxy-17,18,19,20-tetranorprostaglandin $F_{2\alpha}$; Prostavet. $C_{24}H_{32}O_7$; mol wt 432.51. C 66.65%, H 7.46%, O 25.89%. Prostaglandin $F_{2\alpha}$ analog with estrus cycle synchronizing activity. Prepn: W. Skuballa *et al.*, **Ger. pat. 2,434,133;** *eidem,* **U.S. pat. 4,088,775** (1976, 1978 both to Schering AG); and biological activity: W. Skuballa *et al., J. Med. Chem.* **21,** 443 (1978).



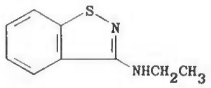
Colorless oil.
THERAP CAT (VET): Luteolytic.

3828. Etiroxate. *O-(4-Hydroxy-3,5-diiodophenyl)-3,5-diiodo-α-methyltyrosine ethyl ester;* D,L-*α-methylthyroxine ethyl ester;* CG 635. $C_{18}H_{17}I_4NO_4$; mol wt 818.95. C 26.40%, H 2.09%, I 61.98%, N 1.71%, O 7.82%. Deriv of thyroxine, *q.v.* Prepn: **Neth. pat. Appl. 6,614,150** corresp to H. Kummer, R. Beckmann, **U.S. pat. 3,930,017** (1967, 1975 both to Grünenthal). Animal studies: R. Beckmann, *Arzneimittel-Forsch.* **29,** 499 (1979). Effect on iodine metabolism in man: D. Emrich, *ibid.* **27,** 422 (1977). Use in hyperlipoproteinemia: H. Banz, F. P. Gall, *Fortschr. Med.* **97,** 1942 (1979); *eidem, Med. Klin.* **75,** 51 (1980).



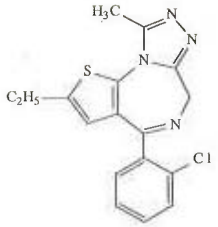
Cryst from ethanol, mp 156-157°.
Hydrochloride, $C_{18}H_{18}Cl_4NO_4$, *Skleronorm.*
THERAP CAT: Antihyperlipoproteinemic.

3829. Etisazol. *N-Ethyl-1,2-benzisothiazol-3-amine; 3-(ethylamino)-1,2-benzisothiazole;* Netrosylla. $C_9H_{10}N_2S$; mol wt 178.24. C 60.64%, H 5.66%, N 15.71%, S 17.99%. Prepd by the reaction of diphenyldisulfide-2,2′-dicarbonyl dichloride with ethylamine, followed by treatment with PCl_5 and ammonia: Boeshagen, *Ber.* **99,** 2566 (1966). Chemistry studies: Geiger *et al., ibid.* **102,** 1961 (1969); Boeshagen *et al., ibid.* **103,** 3166 (1970).



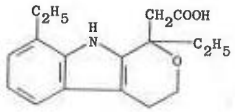
mp 78°.
Hydrochloride, $C_9H_{11}ClN_2S$, *BAY VA 5387, Ectimar.* Crystals from ethanol, mp 171°.
THERAP CAT (VET): Antifungal.

3830. Etizolam. *4-(2-Chlorophenyl)-2-ethyl-9-methyl-6H-thieno[3,2-f][1,2,4]triazolo[4,3-a][1,4]diazepine;* 1-methyl-6-*o*-chlorophenyl-8-ethyl-4*H*-*s*-triazolo[3,4-*c*]thieno-[2,3-*e*]-1,4-diazepine; Y-7131; Depas. $C_{17}H_{15}ClN_4S$; mol wt 342.85. C 59.56%, H 4.41%, Cl 10.34%, N 16.34%, S 9.35%. Prepn: M. Nakanishi *et al.,* **Ger. pat. 2,229,845;** *eidem,* **U.S. pat. 3,904,641** (1972, 1973 both to Yoshitomi). Pharmacology and toxicity studies: T. Tsumagari *et al., Arzneimittel-Forsch.* **28,** 1158 (1978). Effect on monoamine metabolism in brain: M. Setoguchi *et al., ibid.* 1165; on rage responses in cats: T. Fukuda, T. Tsumagari, *Japan. J. Pharmacol.* **33,** 885 (1983).



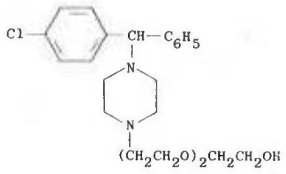
Crystals from toluene, mp 147-148°. LD_{50} in male, female rats, male, female mice (mg/kg): 3619, 3509, 4358, 4258 orally; 865, 825, 830, 783 i.p.; > 5000 s.c. (Tsumagari).
THERAP CAT: Anxiolytic.

3831. Etodolac. *1,8-Diethyl-1,3,4,9-tetrahydropyrano-[3,4-b]indole-1-acetic acid;* etodolic acid; AY-24236; Edolan; Lodine; Ramodar; Ultradol; Zedolac. $C_{17}H_{21}NO_3$; mol wt 287.37. C 71.05%, H 7.37%, N 4.88%, O 16.70%. Prepn: C. A. Demerson *et al.,* **Ger. pat. 2,226,340;** *eidem,* **U.S. pat. 3,843,681** (1973, 1974 both to Am. Home Products); *eidem, J. Med. Chem.* **19,** 391 (1976). Anti-inflammatory and analgesic properties: R. R. Martel, J. Klicius, *Can. J. Physiol. Pharmacol.* **54,** 245 (1976). Metabolic disposition in animals and man: M. N. Cayen *et al., Drug. Metab. Rev.* **12,** 339 (1981); E. S. Ferdinandi *et al., Xenobiotica* **16,** 153 (1986). Clinical comparison with sulindac in rheumatoid arthritis: G. Jacob *et al., Curr. Ther. Res.* **37,** 1124 (1985).



Crystals from hexane/chloroform, mp 145-148°.
THERAP CAT: Anti-inflammatory; analgesic.

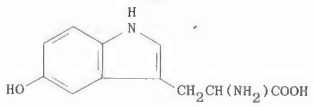
3832. Etodroxizine. *2-[2-[2-[4-[(4-Chlorophenyl)-phenylmethyl]-1-piperazinyl]ethoxy]ethoxy]ethanol;* 1-(*p*-chlorobenzhydryl)-4-[2-[2-(2-hydroxyethoxy)ethoxy]-ethyl]piperazine; 1-(*p*-chloro-*α*-phenylbenzyl)-4-[2-[2-(2-hydroxyethoxy)ethoxy]ethyl]diethylenediamine; hydrochlorbenzethylamine. $C_{23}H_{31}ClN_2O_3$; mol wt 418.98. C 65.93%, H 7.46%, Cl 8.46%, N 6.69%, O 11.46%. Prepn: Morren, **Brit. pat. 817,231** (1959). GC determn in plasma: R. Pentz, A. Schutt, *Arch. Toxicol.* **39,** 225 (1978). Clinical evaluations in insomnia: R. Loire, A. Perrin, *Lyon Med.* **219,** 1795 (1968); S. Fedeli, *Bruxelle Med. Belg.* **48,** 517 (1968). Toxicology: M. Giurgea, J. Puigdevall, *Proc. Eur. Soc. Study Drug Toxicity* **9,** 134 (1968).



Liquid, $bp_{0.01}$ 250°.
Dimaleate, $C_{31}H_{39}ClN_2O_{11}$, *Indunox, Drimyl,* LD_{50} orally in rats: 920 mg/kg (Giurgea, Puigdevall).
THERAP CAT: Hypnotic.

3833. Etofenamate. *2-[[3-(Trifluoromethyl)phenyl]amino]benzoic acid 2-(2-hydroxyethoxy)ethyl ester; N-(α,α,α-trifluoro-m-tolyl)anthranilic acid 2-(2-hydroxyethoxy)ethyl ester;* B 577; TV 485; Bayrogel; Rheumon gel; Traumon Gel. $C_{18}H_{18}F_3NO_4$; mol wt 369.35. C 58.54%, H 4.91%, F 15.43%, N 3.79%, O 17.33%. Percutaneously active antiphlogistic agent. Prepn: K. H. Boltze *et al.,* **Ger. pat. 1,939,112** corresp to **U.S. pat. 3,692,818** (1971, 1972 both to Troponwerke). Series of articles on chemistry, analysis, bio-

4784. 5-Hydroxytryptophan. 5-HTP. $C_{11}H_{12}N_2O_3$; mol wt 220.22. C 59.99%, H 5.49%, N 12.72%, O 21.80%. Precursor of serotonin. Synthesis from 5-benzyloxyindole: Ek, Witkop, *J. Am. Chem. Soc.* **76,** 5579 (1954); Shaw, Morris, *Biochem. Prepns.* **9,** 92 (1962); from 5-benzyloxytryptophan: Frangatos, Chubb, *Can. J. Chem.* **37,** 1374 (1959); Frangatos, **Can.** pat. **619,472** (1961 to Frank W. Horner); Ash, **Brit.** pat. **845,034** (1960 to May & Baker); from tryptophan: Renson *et al., Biochem. Biophys. Res. Commun.* **6,** 20 (1961). Prepn of 5-hydroxy-L and D-tryptophan: A. J. Morris, M. D. Armstrong, *J. Org. Chem.* **22,** 306 (1957). Crystal and molecular structure of DL-form: Wakahara *et al., Tetrahedron Letters* **1970,** 3003. Use of L-5HTP in treatment of myoclonus, a neuromuscular disease: M. H. Van Woert, D. Rosenbaum, *Adv. Neurol.* **26,** 107 (1979); L. J. Thal *et al., Ann. Neurol.* **7,** 570 (1980). Orphan drug under development by Bolar. *Review:* M. H. Van Woert, *Orphan Drugs,* F. E. Karch, Ed. (Marcel Dekker, New York, 1982) pp 13-31.



DL-Form, ***Prétonine.*** Minute rods or needles from ethanol, dec 298-300°. uv max (H_2O at pH 6.0): 278 nm. Soly in water at 5°: 1.0 g/100 ml; at 100°: 5.5 g/100 ml. Soly in 50% boiling alc: 2.5 g/100 ml. Aq solns are stable at low pH.

L-Form, ***oxitriptan, L-5HTP, Levothym, Quietim, Tript-Oh.*** Crystals, $[\alpha]_D^{20}$ −32.5° (H_2O); $[\alpha]_D^{20}$ +16.0° (4*N* HCl).

D-Form, crystals, $[\alpha]_D^{20}$ +32.2° (H_2O).

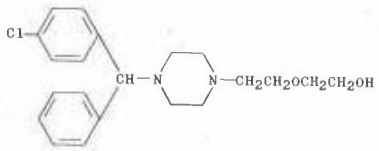
THERAP CAT: L-Form as antidepressant; antiepileptic.

4785. Hydroxyurea. Hydroxycarbamide; Hydrea; Litalir. $CH_4N_2O_2$; mol wt 76.06. C 15.79%, H 5.30%, N 36.84%, O 42.07%. $H_2NCONHOH$. Prepn from hydroxylamine HCl and KCN: Hantzsch, *Ann.* **299,** 99 (1898). Alternate route: Graham, **U.S.** pat. **2,705,727** (1955 to du Pont).

Needles from alc, mp 133-136°. Freely sol in water, hot alcohol.

THERAP CAT: Antineoplastic.

4786. Hydroxyzine. *2-[2-[4-[(4-Chlorophenyl)phenylmethyl]-1-piperazinyl]ethoxy]ethanol; 1-(p-chloro-α-phenylbenzyl)-4-(2-hydroxyethoxyethyl)piperazine;* 1-(*p*-chlorodiphenylmethyl)-4-[2-(2-hydroxyethoxy)ethyl]piperazine; *N*-(4-chlorobenzhydryl)-*N'*-(hydroxyethyloxyethyl)piperazine; 1-(*p*-chlorobenzhydryl)-4-[2-(2-hydroxyethoxy)ethyl]-diethylenediamine; UCB 4492; Tran-Q; Tranquizine. $C_{21}H_{27}ClN_2O_2$; mol wt 374.92. C 67.28%, H 7.26%, Cl 9.46%, N 7.47%, O 8.54%. H_1 receptor antagonist. Outline of commercial prepn: *Chem. Week* **79**(5), 70 (Aug. 4, 1956); Morren, **U.S.** pat. **2,899,436** (1959 to UCB). Pharmacology and metabolism: Cannizaro, *Boll. Chim. Farm.* **104,** 39 (1965); Close *et al., Ind. Chim. Belge* **33,** 94 (1968); *eidem, Proc. Eur. Soc. Study Drug Toxicity* **9,** 144 (1968); S. F. Pong, C. L. Huang, *J. Pharm. Sci.* **63,** 1527 (1974). Pharmacokinetics and antihistaminic activity: F. E. R. Simons *et al., J. Allergy Clin. Immunol.* **73,** 69 (1984); S. Ting *et al., ibid.* **75,** 63 (1985). Clinical trials of efficacy in allergic rhinitis: L. Wong *et al., ibid.* **67,** 223 (1981); in urticaria, R. P. Harvey *et al., ibid.* **68,** 262 (1981); as anti-emetic: R. McKenzie *et al., Anesth. Analg.* **60,** 783 (1981); as pre-surgical sedative: G. Wallace, L. J. Mindlin, *ibid.* **63,** 571 (1984). Toxicity data: E. I. Goldenthal, *Toxicol. Appl. Pharmacol.* **18,** 185 (1971). Comprehensive description: J. Tsau, N. DeAngelis in *Analytical Profiles of Drug Substances* **Vol. 7,** K. Florey, Ed. (Academic Press, New York, 1978) pp 319-341.



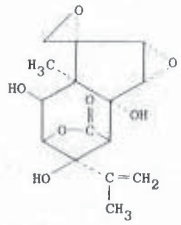
Dihydrochloride, $C_{21}H_{29}Cl_3N_2O_2$, ***Alamon, Atarax, Aterax, Durrax, Orgatrax, Quiess, Vistaril Parenteral.*** Crystals, mp 193°. Bitter taste. Soly in mg/ml: water <700; chloroform 60; acetone 2; ether <0.1. Solns are unstable to intense uv light. LD_{50} in rats (mg/kg): 126 i.p.; 950 orally (Goldenthal).

Pamoate, $C_{44}H_{43}ClN_2O_8$, ***Equipose, Masmoran, Paxistil, Vistaril Pamoate.*** Crystals. Practically insol in water.

THERAP CAT: Anxiolytic. Antihistaminic.

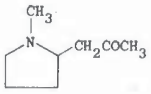
THERAP CAT (VET): Has been used as a tranquilizer.

4787. Hyenanchin. *Hexahydro-1b,6,8-trihydroxy-6a-methyl-8-(1-methylethenyl)spiro[2,5-methano-7H-oxireno-[3,4]cyclopent[1,2-d]oxepin-7,2'-oxiran]-3(2H)-one;* hyaenanchin; hyenancin; mellitoxin. $C_{15}H_{18}O_7$; mol wt 310.29. C 58.06%, H 5.85%, O 36.09%. Isolated from fruit of *Hyaenanche globosa* Lamb., *Euphorbiaceae:* Henry, *J. Chem. Soc.* **117,** 1619 (1920). Structure and identity with mellitoxin: Jommi *et al., Chim. Ind. (Milan)* **46,** 549 (1964), *C.A.* **61,** 5697 (1964).



Crystals, mp 225-235°. Soly in water at 15°: 1.18%; more sol in hot water; sparingly sol in alcohol, acetone, ethyl acetate. $[\alpha]_D^{15}$ +14.7° (water).

4788. Hygrine. *(R)-1-(1-Methyl-2-pyrrolidinyl)-2-propanone;* 2-acetonyl-1-methylpyrrolidine; *N*-methyl-2-acetonylpyrrolidine. $C_8H_{15}NO$; mol wt 141.21. C 68.04%, H 10.71%, N 9.92%, O 11.33%. Occurs in leaves of *Erythroxylon coca* Lam., *Erythroxylaceae* of diverse origin: Liebermann, *Ber.* **22,** 677 (1889). Synthesis: Galinovsky *et al., Monatsh.* **82,** 551 (1951); Lukes *et al., Coll. Czech. Chem. Commun.* **24,** 2433 (1959); Leonard, Cook, *J. Am. Chem. Soc.* **81,** 5627 (1959). Enzymatic synthesis: Tuppy, Faltaous, *Monatsh.* **91,** 167 (1960). Stereochemistry: Galinovsky *et al., ibid.* **84,** 798 (1953). Absolute configuration: Lukes *et al., Coll. Czech. Chem. Commun.* **25,** 483 (1960).



Liquid. bp_{11} 76.5°; bp_{14} 81°. n_D^{20} 1.4555. Sol in alcohol, chloroform, dil acids; slightly sol in water.

Picrate, $C_{14}H_{18}N_4O_8$, crystals from alc, mp 149-151°.

Oxime, $C_8H_{16}N_2O$, crystals from ether, mp 123-124°.

Styphnate, $C_{14}H_{18}N_4O_9$, crystals from ethanol, mp 137°.

Reineckate, $C_{12}H_{21}CrN_7OS_4$, needles from methanol, mp 249-251°.

4789. Hygromycin. *5-Deoxy-5-[[3-[4-[(6-deoxy-β-D-arabino-hexofuranos-5-ulos-1-yl)oxy]-3-hydroxyphenyl]-2-methyl-1-oxo-2-propenyl]amino]-1,2-O-methylene-D-neo-inositol;* homomycin; hygromycin A; 1703-18B; St-4331. $C_{23}H_{29}NO_{12}$; mol wt 511.47. C 54.01%, H 5.71%, N 2.74%, O 37.54%. Antibiotic substance produced by *Streptomyces hygroscopicus* (Jensen) Waksman & Henrici, from forest soil near Indianapolis, Ind: R. L. Mann *et al., Antibiot. &*

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