

# International Nonproprietary Names for Pharmaceutical Substances

In accordance with article 3 of the Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances,<sup>1</sup> notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Nonproprietary Names.

Comments on, or formal objections to, the proposed names may be forwarded by any person to the Pharmaceuticals unit of the World Health Organization within four months of the date of their publication in *WHO Drug Information*, e.g., for List 64 Prop. INN not later than 31 August 1991.

*The inclusion of a name in the lists of proposed international nonproprietary names does not*

*imply any recommendation for the use of the substance in medicine or pharmacy.*

## Action and Use

The statements in italics indicating the action and use are based largely on information supplied by the manufacturer. The information is meant to provide an indication of the potential use of new substances at the time they are accorded proposed INNs. WHO is not in a position either to uphold these statements or to comment on the efficacy of the action claimed. Because of their provisional nature these descriptors will be neither revised nor included in the Cumulative Lists of INNs.

## Proposed International Nonproprietary Names (Prop. INN): List 64<sup>2</sup>

Comprehensive information on the INN programme can be found in WHO Technical Report Series, No. 581, 1975 (*Nonproprietary Names for Pharmaceutical Substances* Twentieth Report of the WHO Expert Committee), ISBN 92 4 120581 4 (price Sw. fr. 6.-); an account of this publication will be found in Annex 2 of the present List. All names from Lists 1-58 of Proposed International Nonproprietary Names, together with a molecular formula index, will be found in *International Nonproprietary Names (INN) for Pharmaceutical Substances. Cumulative List No. 7, 1988*, World Health Organization, Geneva (ISBN 92 4 0560149) (price Sw. fr. 65.-). This publication consists, in the main, of a computer printout which groups together all the proposed and recommended international nonproprietary names (INN)—in Latin, English, French, Russian, and Spanish—published up to March 1988. The printout also indicates in which of the 58 individual lists of proposed names and 27 lists of recommended names each INN was originally published, and gives references to national nonproprietary names, pharmacopoeia monographs, and other sources. In addition, the list contains molecular formulae and Chemical Abstracts Service registry numbers. For easy reference, national nonproprietary names that differ from INN, molecular formulae, and Chemical Abstracts Service registry numbers are indexed in a series of annexes. A final annex describes the procedure for selecting recommended INN and outlines the general principles to be followed in devising these names. All the textual material published in this volume appears in both English and French.

These publications may be obtained, direct or through booksellers, from the sales agents listed on the back cover of *WHO Drug Information*. Orders from countries where sales agents have not yet been appointed may be addressed to World Health Organization, Distribution and Sales Service 1211 Geneva 27, Switzerland.

<sup>1</sup> Text adopted by the Executive Board of WHO in resolution EB15.R7 (*Off. Rec. Wild Hlth Org.*, 1955, **60**, 3) and amended by the Board in resolution EB43.R9 (*Off. Rec. Wild Hlth Org.*, 1969, **173**, 10).

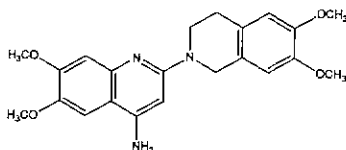
<sup>2</sup> Other lists of proposed and recommended international nonproprietary names can be found in *Cumulative List No. 7, 1988*.

Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae  
Chemical Abstracts Service (CAS) registry number  
Action and use

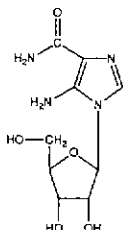
abanoquillum  
abanoquil

4-amino-2-(3,4-dihydro-6,7-dimethoxy-2(1H)-isoquinoly)-6,7-dimethoxy-quinoline  
 $C_{22}H_{25}N_3O_4$  90402-40-7  $\alpha_1$ -adrenoreceptor antagonist



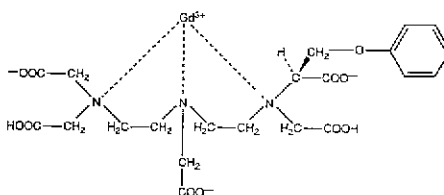
acadesinum  
acadesine

5-amino-1- $\beta$ -D-ribofuranosylimidazole-4-carboxamide  
 $C_9H_{14}N_4O_5$  2627-69-2 cardiac stimulant



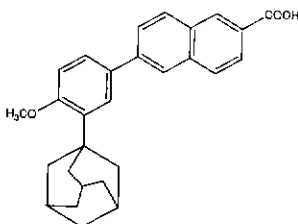
acidum gadobenicum  
gadobenic acid

dihydrogen ( $\pm$ )-[4-carboxy-5,8,11-tris(carboxymethyl)-1-phenyl-2-oxa-5,8,11-triazatridecan-13-oato(5-)]gadolinat(2-)  
 $C_{22}H_{28}GdN_3O_{11}$  113662-23-0 paramagnetic contrast medium



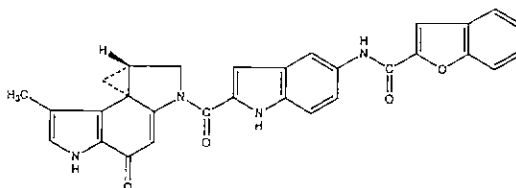
adapalenum  
adapalene

6-[3-(1-adamantyl)-4-methoxyphenyl]-2-naphthoic acid  
 $C_{28}H_{28}O_3$  106685-40-9 antiacne agent



adozelesinum  
adozelesin

(7b*R*,8a*S*)-*N*-[2-[(4,5,8,8a-tetrahydro-7-methyl-4-oxocyclopropa[*c*]pyrrolo[3,2-*e*]indol-2(1*H*)-yl)carbonyl]indol-5-yl]-2-benzofurancarboxamide  
 $C_{30}H_{22}N_4O_4$  110314-48-2 antineoplastic

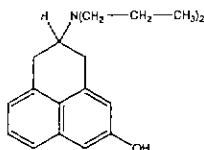


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae  
Chemical Abstracts Service (CAS) registry number  
Action and use

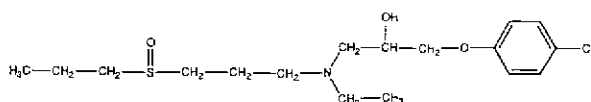
alantemolum  
alantemol

(+)-2-(dipropylamino)-2,3-dihydrophenalen-5-ol  
C<sub>19</sub>H<sub>25</sub>N O 112891-97-1 antipsychotic



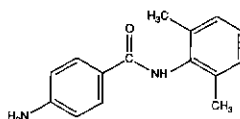
okantalum  
okantalant

(±)-p-[3-[ethyl[3-(propylsulfinyl)propyl]amino]-2-hydroxypropoxy]benzonitrile  
C<sub>18</sub>H<sub>23</sub>N<sub>2</sub>O<sub>3</sub>S 123955-10-2 antidysrhythmic



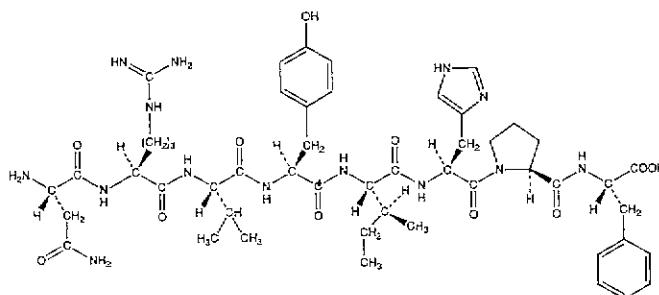
ameltolidum  
ameltioide

4-amino-2',6'-benzoxylidide  
C<sub>15</sub>H<sub>16</sub>N<sub>2</sub>O 787-93-9 anticonvulsant



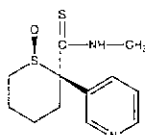
angiotensinum II  
angiotensin II

5-L-isoleucineangiotensin II  
The source of the material should be indicated.  
C<sub>50</sub>H<sub>71</sub>N<sub>13</sub>O<sub>12</sub> 4474-91-3 vasoconstrictor



aprikalimum  
aprikalim

(-)-(1*R*\*,2*R*\*)-tetrahydro-*N*-methyl-2-(3-pyridyl)thio-2*H*-thiopyran-  
2-carboxamide 1-oxide  
C<sub>12</sub>H<sub>16</sub>N<sub>2</sub>OS<sub>2</sub> 92569-65-8 potassium channel activator

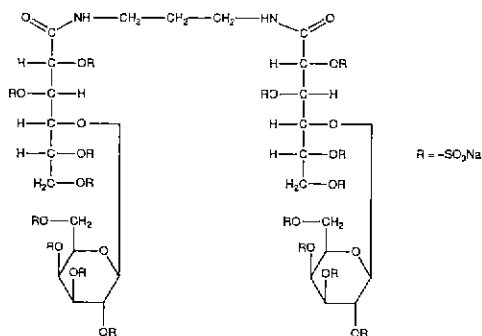


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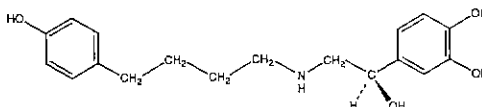
aprosulatum natricum  
aprosulate sodium

*N,N'*-trimethylenebis[lactobionamide] hexadecakis(sodium sulfate) (ester)  
 $C_{27}H_{34}N_2Na_{16}O_{75}S_{16}$  123072-45-7  
*anticoagulant*



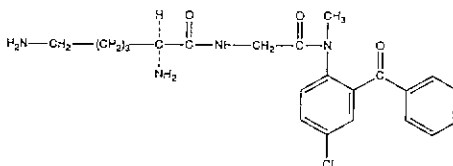
arbutaminum  
arbutamine

(*R*)-3,4-dihydroxy- $\alpha$ -[[[4-(*p*-hydroxyphenyl)butyl]amino]methyl]benzyl alcohol  
 $C_{18}H_{23}NO_4$  128470-16-6  
*cardiac stimulant*



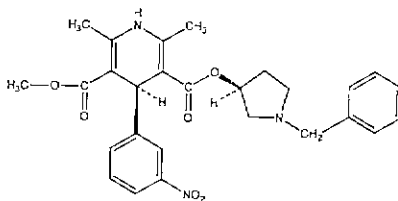
avizafonium  
avizafone

2'-benzoyl-4'-chloro-2-[[*S*]-2,6-diaminohexanamido]-*N*-methylacetanilide  
 $C_{22}H_{27}ClN_4O_3$  65617-86-9  
*anxiolytic, anticonvulsant*



barnidipinum  
barnidipine

(+)-(3'*S*,4*S*)-1-benzyl-3-pyrrolidinyl methyl 1,4-dihydro-2,6-dimethyl-4-(*m*-nitrophenyl)-3,5-pyridinedicarboxylate  
 $C_{27}H_{29}N_3O_6$  104713-75-9  
*calcium antagonist*

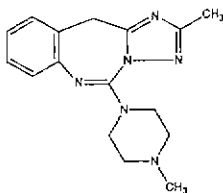


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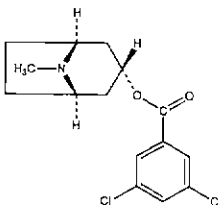
batelapinum  
batelapine

2-methyl-5-(4-methyl-1-piperazinyl)-11*H*-s-triazolo[1,5-*c*][1,3]benzodiazepine  
 $C_{16}H_{20}N_6$  95634-82-5 *antipsychotic*



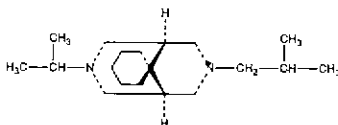
bemesetronum  
bemesetron

*endo*-8-methyl-8-azabicyclo[3.2.1]oct-3-yl 3,5-dichlorobenzoate  
 $C_{15}H_{17}Cl_2NO_2$  40796-97-2 *serotonin antagonist*



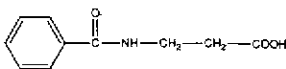
bertosamifium  
bertosamil

3'-isobutyl-7'-isopropylspiro[cyclohexane-1,9'-[3,7]diazabicyclo[3.3.1]nonane]  
 $C_{19}H_{36}N_2$  126825-36-3 *anti-ischaemic*



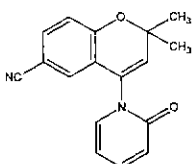
betamipronum  
betamipron

*N*-benzoyl- $\beta$ -alanine  
 $C_{10}H_{11}NO_3$  3440-28-6



bimakalimum  
bimakalim

2,2-dimethyl-4-(2-oxo-1(2*H*)-pyridyl)-2*H*-1-benzopyran-6-carbonitrile  
 $C_{17}H_{14}N_2O_2$  117545-11-6 *potassium channel activator*

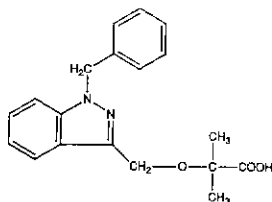


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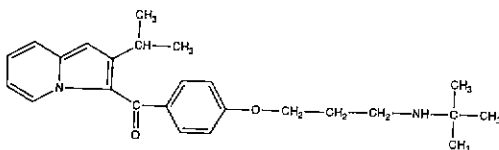
bindaritum  
bindarit

2-[(1-benzyl-1*H*-indazol-3-yl)methoxy]-2-methylpropionic acid  
C<sub>19</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub> 130641-38-2 *antirheumatic*



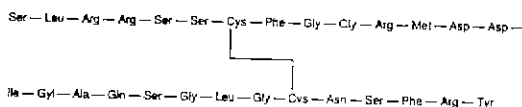
brinazaromum  
brinazarone

*p*-[3-(*tert*-butylamino)propoxy]phenyl 2-isopropyl-3-indolizinyll ketone  
C<sub>25</sub>H<sub>32</sub>N<sub>2</sub>O<sub>2</sub> 89622-90-2 *calcium antagonist*



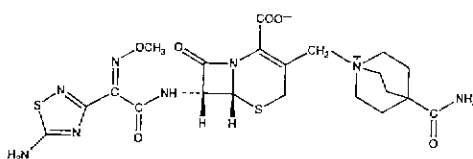
carperitidum  
carperitide

L-seryl-L-leucyl-L-arginyl-L-arginyl-L-seryl-L-seryl-L-cysteinyl-  
L-phenylalanylglycylglycyl-L-arginyl-L-methionyl-L-aspartyl-L-arginyl-  
L-isoleucylglycyl-L-alanyl-L-glutamyl-L-serylglycyl-L-leucylglycyl-L-cysteinyl-  
L-asparaginyll-seryl-L-phenylalanyl-L-arginyl-L-tyrosine cyclic(7→23)-disulfide  
C<sub>127</sub>H<sub>203</sub>N<sub>45</sub>O<sub>39</sub>S<sub>3</sub> 89213-87-6 *cardiac stimulant*



cefclidinum  
cefclidin

(+)-1-[[[(6*R*,7*R*)-7-[2-[5-amino-1,2,4-thiadiazol-3-yl]glyoxylamido]-2-carboxy-  
8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl)methyl]-4-carbamoylquinuclidini-  
um hydroxide, inner salt, 7<sup>2</sup>-(*Z*)-(O-methyloxime)  
C<sub>21</sub>H<sub>26</sub>N<sub>6</sub>O<sub>6</sub>S<sub>2</sub> 105239-91-6 *antibiotic*

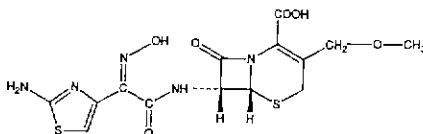


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae  
Chemical Abstracts Service (CAS) registry number  
Action and use

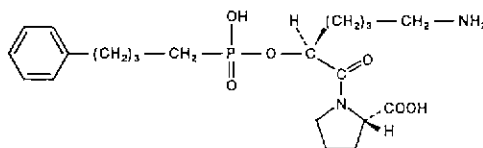
cefdaloximum  
cefdaloxime

(+)-(6*R*,7*R*)-7-[2-(2-amino-4-thiazolyl)glyoxyamido]-3-(methoxymethyl)-  
8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate, 7<sup>2</sup>-(*Z*)-oxime  
antibiotic  
C<sub>14</sub>H<sub>15</sub>N<sub>5</sub>O<sub>6</sub>S<sub>2</sub>



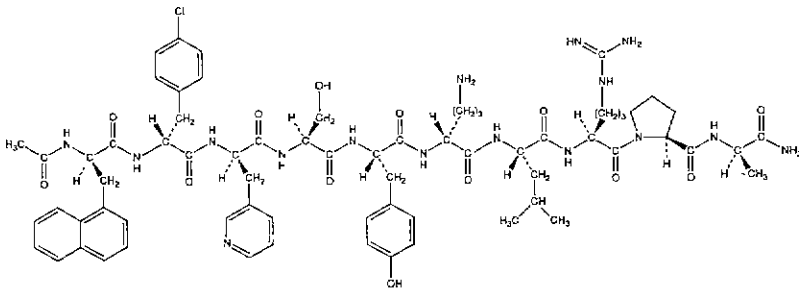
enalaprilum  
enalapril

1-[(2*S*)-6-amino-2-hydroxyhexanoyl]-L-proline, hydrogen (4-phenyl-  
butyl)phosphonate (ester)  
C<sub>21</sub>H<sub>33</sub>N<sub>2</sub>O<sub>6</sub>P 111223-26-8 *angiotensin converting enzyme*  
*inhibitor*



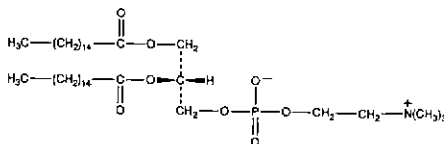
cetorelixum  
cetorelix

*N*-acetyl-3-(2-naphthyl)-D-alanyl-*p*-chloro-D-phenylalanyl-3-(3-pyridyl)-D-alanyl-  
L-seryl-L-tyrosyl-*N*<sup>5</sup>-carbamoyl-D-ornithyl-L-leucyl-L-arginyl-L-prolyl-D-alanin-  
amide  
C<sub>70</sub>H<sub>92</sub>ClN<sub>17</sub>O<sub>14</sub> *antineoplastic*



colfoscerilum palmitas  
colfosceril palmitate

choline hydroxide, dihydrogen phosphate, inner salt, ester with  
L-1,2-dipalmitin *or* 1,2-dipalmitoyl-*sn*-glycero-3-phosphocholine  
C<sub>40</sub>H<sub>80</sub>NO<sub>8</sub>P 63-89-8 *surfactant replacement*



corticoirelinum  
corticoirelin

corticotropin-releasing factor  
The source of the material should be indicated.  
C<sub>205</sub>H<sub>339</sub>N<sub>59</sub>O<sub>63</sub>S *diagnostic agent*

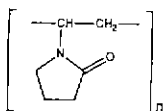
H - Ser - Gln - Glu - Pro - Pro - Ile - Ser - Leu - Asp - Leu - Thr - Phe -  
His - Leu - Leu - Arg - Glu - Val - Leu - Glu - Met - Thr - Lys - Ala -  
Asp - Gln - Leu - Ala - Gln - Gln - Ala - His - Ser - Asn - Arg - Lys -  
Leu - Leu - Asp - Ile - Ala - NH<sub>2</sub>

Proposed International  
Nonproprietary Name (Latin, English)

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Chemical Abstracts Service (CAS) registry number  
Action and use

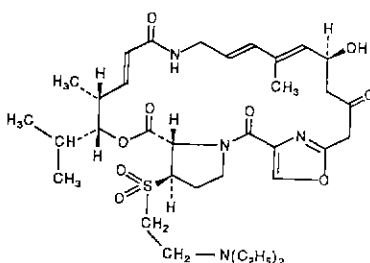
crospovidonum  
crospovidone

1-vinyl-2-pyrrolidinone polymer, crosslinked  
(C<sub>5</sub>H<sub>7</sub>NO)<sub>n</sub> 9003-39-8 *pharmaceutical aid*



dalfopristinum  
dalfopristin

(3*R*,4*R*,5*E*,10*E*,12*E*,14*S*,26*R*,26*aS*)-26-[[2-(diethylamino)ethyl]sulfonyl]-  
8,9,14,15,24,25,26,26*a*-octahydro-14-hydroxy-3-isopropyl-4,12-dimethyl-3*H*-  
21,18-nitrilo-1*H*,22*H*-pyrrolo[2,1*c*][1,8,4,19]dioxadiazacyclotetracosine-  
1,7,16,22(4*H*,7*H*)-tetrone  
C<sub>34</sub>H<sub>50</sub>N<sub>4</sub>O<sub>9</sub>S 112362-50-2 *antibacterial*



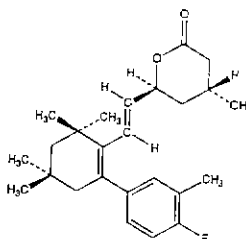
dalteparinum natricum  
dalteparin sodium

Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa, the majority of the components have a 2-*O*-sulfo- $\alpha$ -L-idopyranosuronic acid structure at the non-reducing end and a 6-*O*-sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain; the average relative molecular mass is about 5000, 90 per cent of which ranging between 2000 and 9000; the degree of sulfatation is 2 to 2,5 per disaccharidic unit.

*anticoagulant*

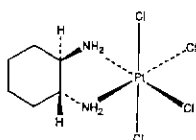
dalvastatinum  
dalvastatin

(±)-(4*R*\*,6*S*\*)-6-[(*E*)-2-[2-(4-fluoro-*m*-tolyl)-4,4,6,6-tetramethyl-1-cyclohexen-1-yl]vinyl]tetrahydro-4-hydroxy-2*H*-pyran-2-one  
C<sub>24</sub>H<sub>31</sub>FO<sub>3</sub> 132100-55-1 *antihyperlipidaemic*



dexormaplatinum  
dexormaplatin

(+)-*trans*-tetrachloro(1,2-cyclohexanediamine)platinum  
C<sub>6</sub>H<sub>14</sub>Cl<sub>4</sub>N<sub>2</sub>Pt 96392-96-0 *antineoplastic*



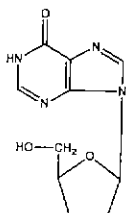
Proposed International  
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Action and use

didanosinum  
didanosine

2',3'-dideoxyinosine  
 $C_{10}H_{12}N_4O_3$  69655-05-6

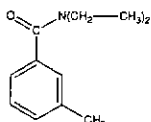
antiviral



diethyltoluamidum  
diethyltoluamide

*N,N*-diethyl-*m*-toluamide  
 $C_{12}H_{17}NO$  134-62-3

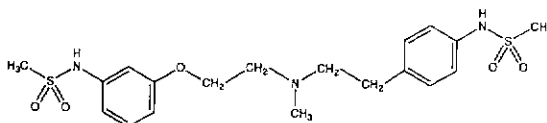
insect repellent



dofetilidum  
dofetilide

$\beta$ -[(*p*-methanesulfonamidophenethyl)methylamino]methanesulfono-*p*-phenetidine  
 $C_{19}H_{27}N_3O_5S_2$  115256-11-6

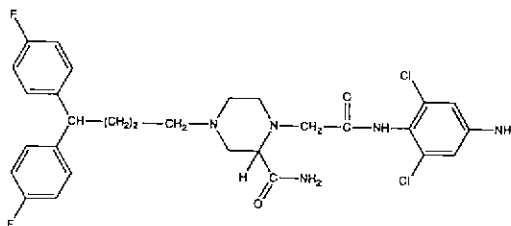
antidysrhythmic



rafazinium  
rafazine

( $\pm$ )-4'-amino-4-[5,5-bis(*p*-fluorophenyl)pentyl]-2-carbamoyl-2',6'-dichloro-1-piperazineacetanilide  
 $C_{30}H_{33}Cl_2F_2N_5O_2$  120770-34-5

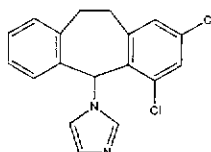
coronary vasodilator



eberconazolum  
eberconazole

( $\pm$ )-1-(2,4-dichloro-10,11-dihydro-5*H*-dibenzo[*a,d*]cyclohepten-5-yl)imidazole  
 $C_{18}H_{14}Cl_2N_2$  128326-82-9

antifungal

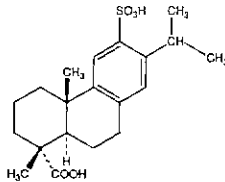


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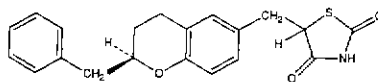
ecabetum  
ecabet

13-isopropyl-12-sulfopodocarpa-8,11,13-trien-15-oic acid  
C<sub>20</sub>H<sub>28</sub>O<sub>5</sub>S 33159-27-2 *antiulcer*



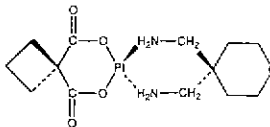
englitazonum  
englitazone

(-)-5-[[[(2*R*)-2-benzyl-6-chromanyl]methyl]-2,4-thiazolidinedione  
C<sub>20</sub>H<sub>19</sub>NO<sub>3</sub>S 109229-58-5 *antidiabetic*



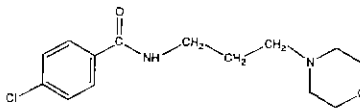
enloplatinum  
enloplatin

*cis*-(1,1-cyclobutanedicarboxylato)[tetrahydro-4*H*-pyran-4,4-bis(methyl-  
amine)]platinum  
C<sub>13</sub>H<sub>22</sub>N<sub>2</sub>O<sub>5</sub>Pt 111523-41-2 *antineoplastic*



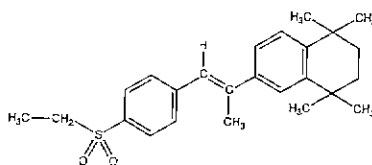
eprobemidum  
eprobemide

*p*-chloro-*N*-(3-morpholinopropyl)benzamide  
C<sub>14</sub>H<sub>19</sub>ClN<sub>2</sub>O<sub>2</sub> 87940-60-1 *antidepressant*



etarotenum  
etarotene

6-[(*E*)-*p*-(ethylsulfonyl)-*a*-methylstyryl]-1,2,3,4-tetrahydro-1,1,4,4-tetramethyl-  
naphthalene  
C<sub>25</sub>H<sub>32</sub>O<sub>2</sub>S 87719-32-2 *dermatological*

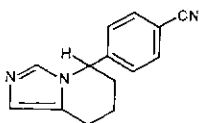


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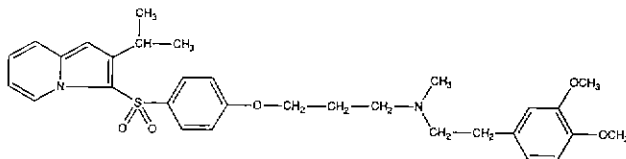
fadrozolium  
fadrozole

(±)-*p*-(5,6,7,8-tetrahydroimidazo[1,5-*a*]pyridin-5-yl)benzonitrile  
C<sub>14</sub>H<sub>13</sub>N<sub>3</sub> 102676-47-1 *antineoplastic*



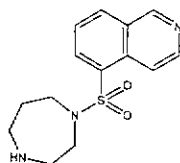
fantofaronum  
fantofarone

1-[[*p*-[3-[(3,4-dimethoxyphenethyl)methylamino]propoxy]phenyl]-sulfonyl]-2-isopropylindolizine  
C<sub>13</sub>H<sub>38</sub>N<sub>2</sub>O<sub>5</sub>S 114432-13-2 *calcium antagonist*



fasudilum  
fasudil

hexahydro-1-(5-isoquinolylsulfonyl)-1*H*-1,4-diazepine  
C<sub>14</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub>S 103745-39-7 *vasodilator*

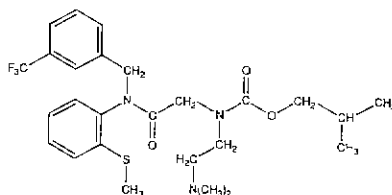


filgrastimum  
filgrastim

*N*-L-methionylcolony-stimulating factor (human clone 1034)  
C<sub>445</sub>H<sub>1339</sub>N<sub>223</sub>O<sub>243</sub>S<sub>9</sub> 121181-53-1 *immunomodulator*

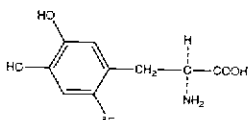
flosatidilum  
flosatidil

isobutyl [2-(dimethylamino)ethyl][[*o*-(methylthio)phenyl]-  
[*m*-(trifluoromethyl)benzyl]carbonyl]methyl]carbamate  
C<sub>26</sub>H<sub>34</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>S 113593-34-3 *calcium antagonist*



fluorodopum (<sup>18</sup>F)  
fluorodopa (<sup>18</sup>F)

3-(2-fluoro-<sup>18</sup>F-4,5-dihydroxyphenyl)-L-alanine  
C<sub>9</sub>H<sub>10</sub><sup>18</sup>FNO<sub>4</sub> 92812-82-3 *radioactive diagnostic agent*



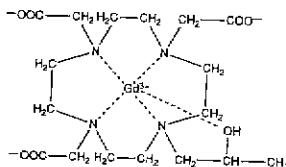
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gadoteridolum  
gadoteridol

(±)-[10-(2-hydroxypropyl)-1,4,7,10-tetraazacyclodecane-  
1,4,7-triacetato[(3-)]gadolinium  
C<sub>17</sub>H<sub>29</sub>GdN<sub>4</sub>O<sub>7</sub> 120066-54-8

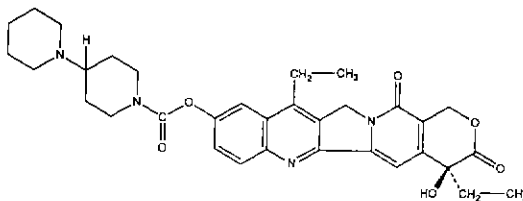
paramagnetic contrast medium



irinotecanum  
irinotecan

(+)-7-ethyl-10-hydroxycamptothecin 10-[1,4'-biperidine]-1'-carboxylate or  
(+)-(S)-4,11-diethyl-4,9-dihydroxy-1H-pyrano[3',4':6,7]indolizino[1,2-b]-  
quinoline-3,14(4H,12H)-dione 9-[1,4'-bipiperidine]-1'-carboxylate  
C<sub>33</sub>H<sub>38</sub>N<sub>4</sub>O<sub>6</sub> 97682-44-5

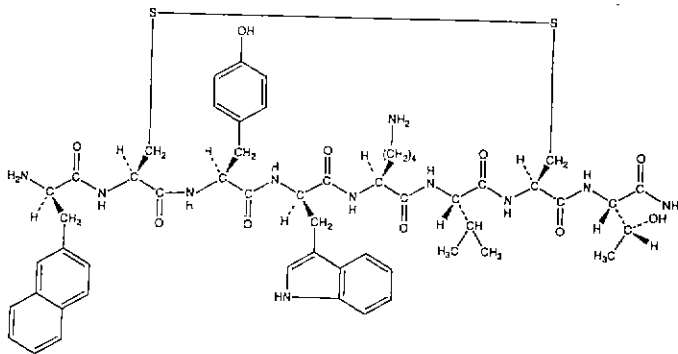
antineoplastic



lanreotidum  
lanreotide

3-(2-naphthyl)-D-alanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-valyl-  
L-cysteinyl-L-threoninamide, cyclic (2→7)-disulfide  
C<sub>54</sub>H<sub>69</sub>N<sub>11</sub>O<sub>10</sub>S<sub>2</sub> 108736-35-2

antineoplastic



lenograstimum  
lenograstim

133-[O-[O-(N-acetyl-α-neuraminosyl)-(2→3)-[O-β-D-galactopyranosyl-(1→3)]-2-  
acetamido-2-deoxy-β-D-galactopyranosyl]-L-threonine]colony-stimulating  
factor (human clone 1034) mixture with 133-[O-[O-(N-acetyl-α-neuraminosyl)-  
(2→6)-O-[O-(N-acetyl-α-neuraminosyl)-(2→3)-β-D-galactopyranosyl-(1→3)]-2-  
acetamido-2-deoxy-β-D-galactopyranosyl]-L-threonine]colony-stimulating  
factor (human clone 1034)

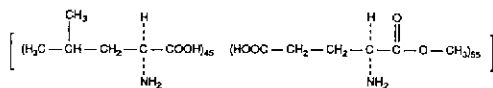
immunomodulator

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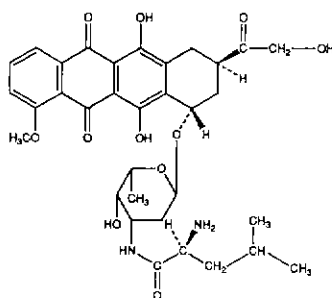
leuciglerum  
leucigler

L-leucine polymer with 5-methyl hydrogen L-glutamate  
(C<sub>6</sub>H<sub>13</sub>NO<sub>2</sub>)<sub>m</sub> · (C<sub>6</sub>H<sub>11</sub>NO<sub>4</sub>)<sub>n</sub> 41385-14-2 *dermatological*



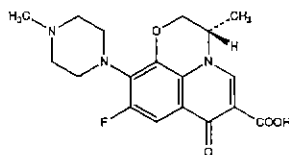
irubicinum  
irubicin

(8*S*,10*S*)-10-[[3-[(*S*)-2-amino-4-methylvaleramido]-2,3,6-trideoxy-*α*-L-lyxo-hexopyranosyl]oxy]-8-glycolyl-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-5,12-naphthacenedione  
C<sub>33</sub>H<sub>40</sub>N<sub>2</sub>O<sub>12</sub> 70774-25-3 *antineoplastic*



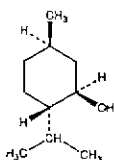
levofloxacinum  
levofloxacin

(-)-(*S*)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7*H*-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid  
C<sub>18</sub>H<sub>20</sub>FN<sub>3</sub>O<sub>4</sub> 100986-85-4 *antibacterial*



levomentholum  
levomenthol

(-)-(*1R,3R,4S*)-menthol  
C<sub>10</sub>H<sub>20</sub>O 2216-51-5 *decongestant, carminative*

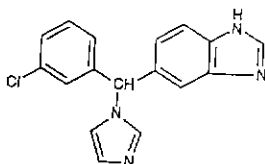


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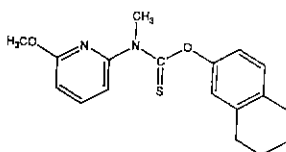
liarozolum  
liarozole

(±)-5-(*m*-chloro- $\alpha$ -imidazol-1-ylbenzyl)benzimidazole  
C<sub>17</sub>H<sub>13</sub>ClN<sub>4</sub> 115575-11-6 *antiandrogen*



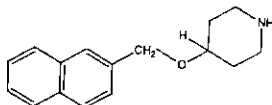
liranaftatum  
liranaftate

*O*-(5,6,7,8-tetrahydro-2-naphthyl) 6-methoxy-*N*-methylthio-2-pyridinecarbamate  
C<sub>15</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>S 88678-31-3 *antifungal*



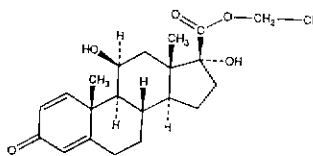
litoxetinum  
litoxetine

4-(2-naphthylmethoxy)piperidine  
C<sub>16</sub>H<sub>19</sub>NO 86811-09-8 *antidepressant*



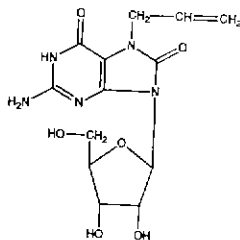
loteprednolum  
loteprednol

chloromethyl 11 $\beta$ ,17-dihydroxy-3-oxoandrosta-1,4-diene-17 $\beta$ -carboxylic acid  
C<sub>21</sub>H<sub>26</sub>ClO<sub>5</sub> 129260-79-3 *anti-inflammatory*



loxoribinum  
loxoribine

7-allyl-2-amino-9- $\beta$ -D-ribofuranosylpurine-6,8(1*H*,9*H*)-dione  
C<sub>13</sub>H<sub>17</sub>N<sub>5</sub>O<sub>6</sub> 121288-39-9 *immunostimulant*

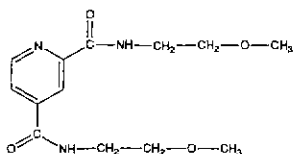


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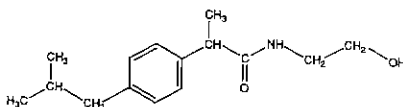
lufironilum  
lufironil

*N,N'*-bis(2-methoxyethyl)-2,4-pyridinedicarboxamide  
C<sub>13</sub>H<sub>19</sub>N<sub>3</sub>O<sub>4</sub> 128075-79-6 collagen inhibitor



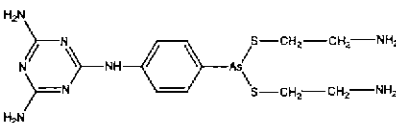
ibuprofenum  
ibuprofen

(±)-*N*-(2-hydroxyethyl)-*p*-isobutylhydratropamide  
C<sub>15</sub>H<sub>23</sub>NO<sub>2</sub> 82821-47-4 analgesic, non-steroidal  
anti-inflammatory



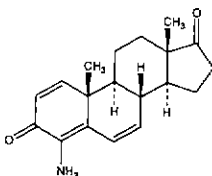
melarsominum  
melarsomine

bis(2-aminoethyl) *p*-[(4,6-diamino-*s*-triazin-2-yl)amino]dithiobenzearsonite  
C<sub>13</sub>H<sub>21</sub>AsN<sub>8</sub>S<sub>2</sub> 128470-15-5 antiferrial



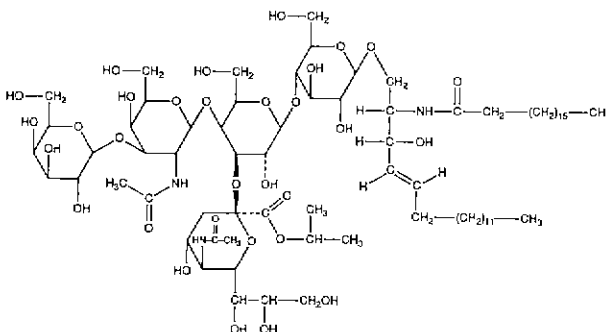
minamestanum  
minamestane

4-aminoandrosta-1,4,6-triene-3,17-dione  
C<sub>19</sub>H<sub>23</sub>NO<sub>2</sub> 105051-87-4 antineoplastic



mipragosidum  
mipragoside

*N*-(H<sup>2</sup>-*N*-acetylneuraminosyl)gangliotetraosyl)ceramide, isopropyl ester  
C<sub>76</sub>H<sub>137</sub>N<sub>5</sub>O<sub>31</sub> 131129-98-1 ganglioside

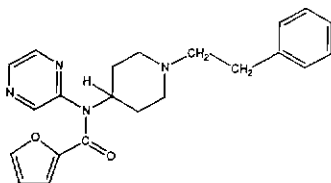


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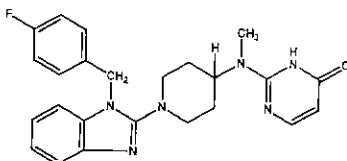
mirfentanilum  
mirfentanil

*N*-(1-phenethyl-4-piperidyl)-*N*-pyrazinyl-2-furamide  
 $C_{22}H_{24}N_4O_2$  117523-47-4 *analgesic*



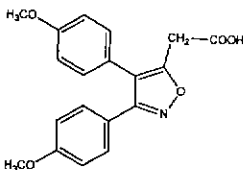
mizolastinum  
mizolastine

2-[[1-[1-(*p*-fluorobenzyl)-2-benzimidazolyl]-4-piperidyl]methylamino]-4(3*H*)-  
pyrimidinone  
 $C_{24}H_{25}FN_6O$  108612-45-9 *antihistaminic*



mofezolacum  
mofezolac

3,4-bis(*p*-methoxyphenyl)-5-isoxazoleacetic acid  
 $C_{19}H_{17}NO_5$  78967-07-4 *analgesic, non-steroidal  
anti-inflammatory*

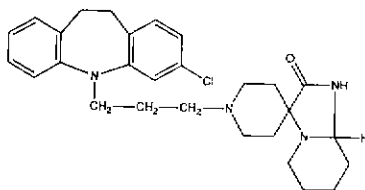


molgramostimum  
molgramostim

colony-stimulating factor 2 (human clone pHG<sub>25</sub> protein moiety reduced)  
 $C_{639}H_{1007}N_{171}O_{196}S_4$  (for protein moiety) 99283-10-0 *immunomodulator*

mosapraminum  
mosapramine

(±)-1'-[3-(3-chloro-10,11-dihydro-5*H*-dibenz[*b,f*]azepin-5-yl)propyl]hexahydro-  
spiro[imidazo[1,2-*a*]pyridine-3(2*H*),4'-piperidin]-2-one  
 $C_{28}H_{35}ClN_4O$  89419-40-9 *neuroleptic*

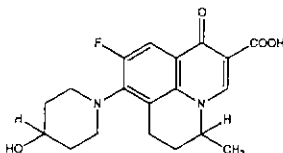


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nadifloxacinum  
nadifloxacin

(±)-9-fluoro-6,7-dihydro-8-(4-hydroxypiperidino)-5-methyl-1-oxo-1*H*,5*H*-  
benzo[*ij*]quinolizine-2-carboxylic acid  
C<sub>19</sub>H<sub>21</sub>FN<sub>2</sub>O<sub>4</sub> 124858-35-1 *antibacterial*

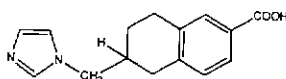


heparinum calcium  
heparin calcium

Calcium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-*O*-sulfo- $\alpha$ -L-idopyranosuronic acid structure at the non-reducing end and a 6-*O*-sulfo-2,5-anhydro- $\beta$ -mannitol structure at the reducing end of their chain; the average relative molecular mass is 4000 to 5000; the degree of sulfatation is about 2,1 per disaccharidic unit.  
*anticoagulant*

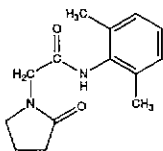
nafagrelum  
nafagrel

(±)-5,6,7,8-tetrahydro-6-(imidazo[1-*yl*methyl]-2-naphthoic acid  
C<sub>18</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub> 97901-21-8 *thromboxane A<sub>2</sub> synthetase inhibitor*



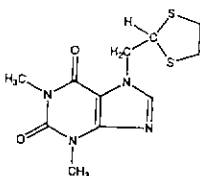
nefiracetamum  
nefiracetam

2-oxo-1-pyrrolidineaceto-2',6'-xylidide  
C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub> 77191-36-7 *nootropic agent*



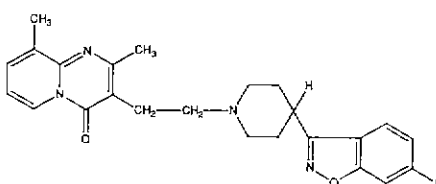
nestifyllinum  
nestifylline

7-(1,3-dithiolan-2-ylmethyl)theophylline  
C<sub>11</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub>S<sub>2</sub> 116763-36-1 *antisthmatic*



ocaperidonum  
ocaperidone

3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)piperidino]ethyl]-2,9-dimethyl-4*H*-  
pyrido[1,2-*a*]pyrimidin-4-one  
C<sub>24</sub>H<sub>25</sub>FN<sub>4</sub>O<sub>2</sub> 129029-23-8 *antipsychotic*

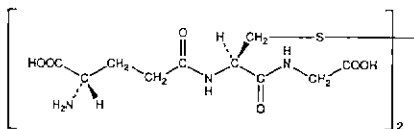


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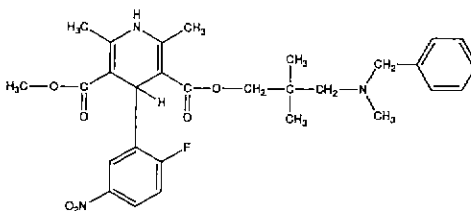
oxiglutationum  
oxiglutatione

*N,N'*-[dithiobis[[(*R*)-1-[(carboxymethyl)carbamoyl]ethylene]]di-*L*-glutamine  
C<sub>20</sub>H<sub>32</sub>N<sub>6</sub>O<sub>12</sub>S<sub>2</sub> 27025-41-B



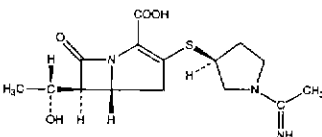
palonidipinum  
palonidipine

(±)-3-(benzylmethylamino)-2,2-dimethylpropyl methyl 4-(2-fluoro-5-nitrophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate  
C<sub>29</sub>H<sub>34</sub>FN<sub>3</sub>O<sub>6</sub> 96515-73-0 *calcium antagonist*



panipenemum  
panipenem

(+)-(5*R*,6*S*)-3-[[[(*S*)-1-acetimido-3-pyrrolidiny]thio]-6-[(*R*)-1-hydroxyethyl]-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid  
C<sub>15</sub>H<sub>21</sub>N<sub>3</sub>O<sub>4</sub>S 87726-17-8 *antibiotic*

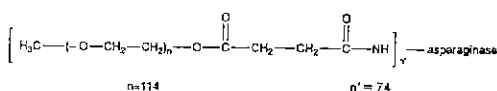


parnaparinum natrium  
parnaparin sodium

Sodium salt of depolymerized heparin obtained by hydrogen peroxide and cupric acetate degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-*O*-sulfo- $\alpha$ -*L*-idopyranosuronic acid structure at the non-reducing end and a 2-*N*,6-*O*-disulfo- $\beta$ -glucosamine structure at the reducing end of their chain; the average relative molecular mass is between 4000 and 6000 (5000  $\pm$  10 per cent), the degree of sulfatation is 2,15 ( $\pm$  10 per cent) per disaccharidic unit.  
*anticoagulant*

pegaspargasum  
pegaspargase

asparaginase, reaction product with succinic anhydride, esters with polyethylene glycol monomethyl ether  
130167-69-0 *antineoplastic*

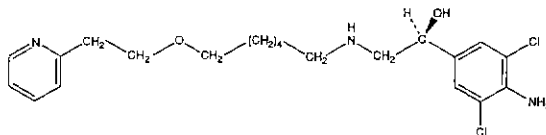


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae  
Chemical Abstracts Service (CAS) registry number  
Action and use

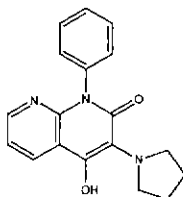
picumeterolum  
picumeterol

(-)-(*R*)-4-amino-3,5-dichloro- $\alpha$ -[[[6-[2-(2-pyridyl)ethoxy]hexyl]amino]-methyl]benzyl alcohol  
C<sub>21</sub>H<sub>29</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub> 130641-36-0  $\beta_2$ -adrenoreceptor agonist



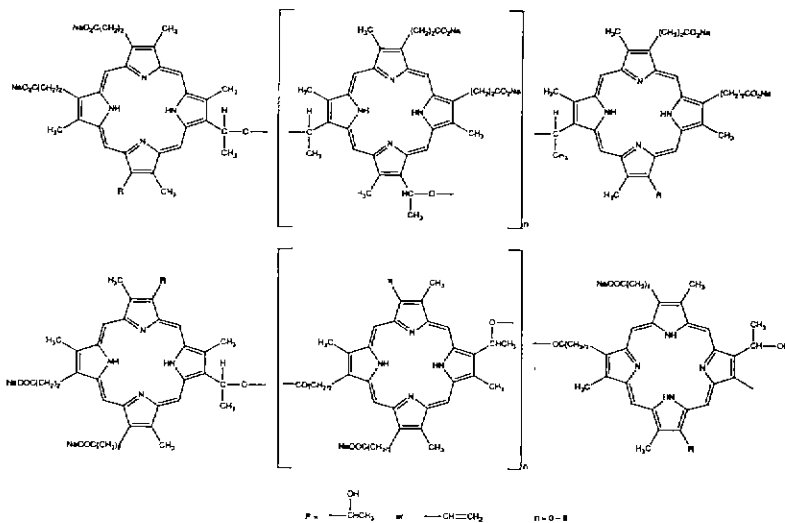
pirodomastum  
pirodomast

4-hydroxy-1-phenyl-3-(1-pyrrolidiny)-1,8-naphthyridin-2(1*H*)-one  
C<sub>17</sub>H<sub>17</sub>N<sub>3</sub>O<sub>2</sub> 108310-20-9 *antiallergic*



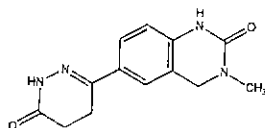
porfimerum natricum  
porfimer sodium

photofrin II 87806-31-3 *photosensitizing agent*



prinoxodanum  
prinoxodan

3,4-dihydro-3-methyl-6-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)-2(1*H*)-quinazolinone  
C<sub>13</sub>H<sub>14</sub>N<sub>4</sub>O<sub>2</sub> 111786-07-3 *cardiac stimulant*

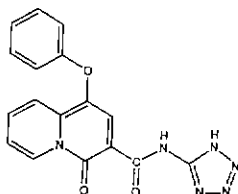


Proposed International  
Nonproprietary Name (Latin, English)

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Chemical Abstracts Service (CAS) registry number  
Action and use

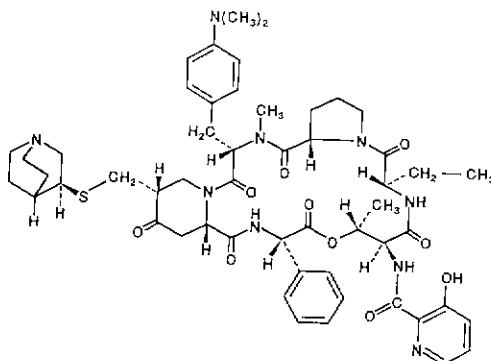
quinotolastum  
quinotolast

4-oxo-1-phenoxy-*N*-1*H*-tetrazol-5-yl-4*H*-quinolizine-3-carboxamide  
C<sub>17</sub>H<sub>12</sub>N<sub>5</sub>O<sub>3</sub> 101193-40-2 *antiallergic*



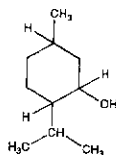
quinupristinum  
quinupristin

*N*-[(6*R*,9*S*,10*R*,13*S*,15*aS*,22*S*,24*aS*)-22-[*p*-(dimethylamino)benzyl]-6-ethylidocosahydro-10,23-dimethyl-5,8,12,15,17,21,24-heptaoxo-13-phenyl-18-[[[(3*S*)-3-quinuclidinylthio)methyl]-12*H*-pyrido[2,1-*l*][1,4,7,10,13,16]oxapentazacyclononadecin-9-yl]-3-hydroxy picolinamide  
C<sub>53</sub>H<sub>67</sub>N<sub>5</sub>O<sub>10</sub>S 120138-50-3 *antibacterial*



racementholum  
racementhol

(±)-(1*R*\*,3*R*\*,4*S*\*)-menthol  
C<sub>10</sub>H<sub>20</sub>O 15356-70-4 *decongestant, carminative*



regramostimum  
regramostim

colony-stimulating factor 2 (human clone pCSF-1 protein moiety reduced),  
glycoform GMC 89-107  
C<sub>637</sub>H<sub>1003</sub>N<sub>171</sub>O<sub>187</sub>S<sub>8</sub> 127757-91-9 *immunomodulator*

reviparinum natrium  
reviparin sodium

Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-*O*-sulfo- $\alpha$ -L-idopyranosuronic acid structure at the non-reducing end and a 6-*O*-sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain; the average relative molecular mass is 3500 to 4500, 90 per cent of which ranging between 2000 and 8000; the degree of sulfatation is about 2,2 per disaccharidic unit.

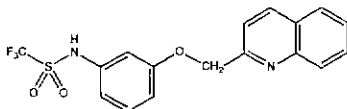
*anticoagulant*

Proposed International  
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Action and use

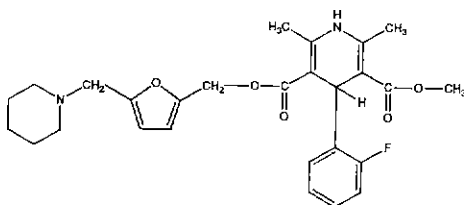
ritolukastum  
ritolukast

1,1,1-trifluoro- $\alpha$ -2-quinolylmethanesulfon-*m*-anisidide  
 $C_{17}H_{13}F_3N_2O_3S$  111974-60-8 *antiasthmatic*



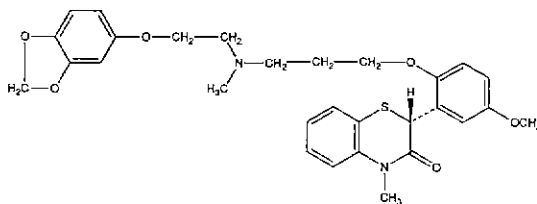
sagandipinum  
sagandipine

methyl (5-piperidinomethyl)furfuryl 4-(*o*-fluorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate  
 $C_{27}H_{31}FN_2O_5$  126294-30-2 *calcium antagonist*



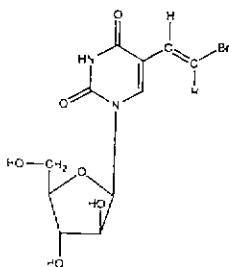
semotiadilum  
semotiadil

(+)-(R)-2-[5-methoxy-2-[3-[methyl[2-[3,4-(methylenedioxy)phenoxy]ethyl]-amino]propoxy]phenyl]-4-methyl-2H-1,4-benzothiazin-3(4H)-one  
 $C_{29}H_{32}N_2O_6S$  116476-13-2 *calcium antagonist*



sorivudinum  
sorivudine

(+)-1- $\beta$ -D-arabinofuranosyl-5-[(E)-2-bromovinyl]uracil  
 $C_{11}H_{13}BrN_2O_6$  77181-69-2 *antiviral*

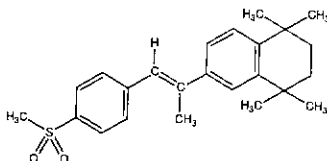


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Chemical Abstracts Service (CAS) registry number  
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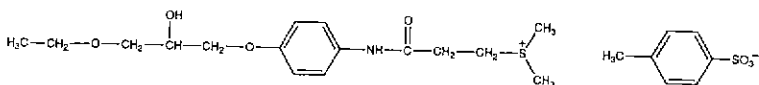
sumarotenum  
sumarotene

1,2,3,4-tetrahydro-1,1,4,4-tetramethyl-6-[(*E*)- $\alpha$ -methyl-*p*-(methylsulfonyl)-styryl]naphthalene  
C<sub>24</sub>H<sub>30</sub>O<sub>2</sub>S 105687-93-2 *dermatological*



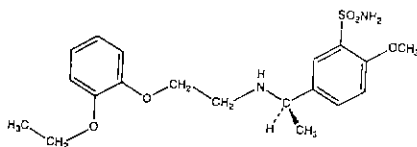
suplatastum tosilas  
suplatast tosilate

(±)-[2-[[*p*-(3-ethoxy-2-hydroxypropoxy)phenyl]carbamoylethyl]-dimethylsulfonium *p*-toluenesulfonate  
C<sub>23</sub>H<sub>33</sub>NO<sub>7</sub>S<sub>2</sub> 94055-76-2 *anti-asthmatic, antiallergic*



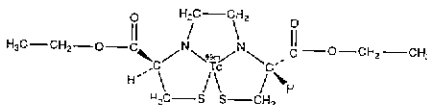
tamsulosinum  
tamsulosin

(-)-(*R*)-5-[2-[[2-(*o*-ethoxyphenoxy)ethyl]amino]propyl]-2-methoxybenzenesulfonamide  
C<sub>20</sub>H<sub>25</sub>N<sub>2</sub>O<sub>5</sub>S 106133-20-4  $\alpha_1$ -adrenoreceptor antagonist



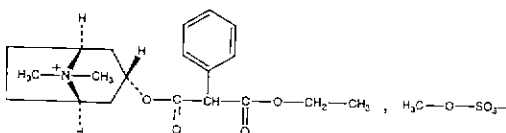
technetii (<sup>99m</sup>Tc) bिकास  
technetium (<sup>99m</sup>Tc) bicisate

[*N,N'*-ethylenedi-L-cysteinato(3-)]oxo[<sup>99m</sup>Tc] technetium(V), diethyl ester  
C<sub>12</sub>H<sub>21</sub>N<sub>2</sub>O<sub>5</sub>S<sub>2</sub><sup>99m</sup>Tc 121281-41-2 *radiocontrast medium*



tematropii metilsulfas  
tematropium metilsulfate

3 $\alpha$ -hydroxy-8-methyl-1 $\alpha$ H,5 $\alpha$ H-tropanium methyl sulfate (salt), (±)-ethyl hydrogen phenylmalonate  
C<sub>21</sub>H<sub>31</sub>NO<sub>5</sub>S 113932-41-5 *anticholinergic*

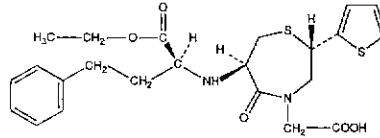


Proposed International  
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Chemical Abstracts Service (CAS) registry number  
Action and use

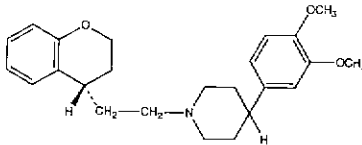
temocaprilum  
temocapril

(+)-(2*S*,6*R*)-6-[[[(1*S*)-1-carboxy-3-phenylpropyl]amino]tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5*H*)-acetic acid, 6-ethyl ester  
C<sub>23</sub>H<sub>28</sub>N<sub>2</sub>O<sub>5</sub>S<sub>2</sub> 111902-57-9 *angiotensin-converting enzyme inhibitor*



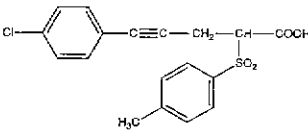
terikalantum  
terikalant

(-)-1-[2-(4-chromanyl)ethyl]-4-(3,4-dimethoxyphenyl)piperidine  
C<sub>24</sub>H<sub>31</sub>NO<sub>3</sub> *potassium channel blocker*



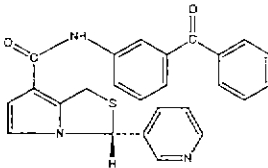
tibeglisenum  
tibeglisene

(±)-5-(*p*-chlorophenyl)-2-(*p*-tolylsulfonyl)-4-pentynoic acid  
C<sub>14</sub>H<sub>15</sub>ClO<sub>4</sub>S 129731-11-9 *antidiabetic*



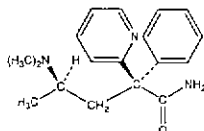
tulopafantum  
tulopafant

(+)-3'-benzoyl-3-(3-pyridyl)-1*H*,3*H*-pyrrolo[1,2-*c*]thiazole-7-carboxanilide  
C<sub>25</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>S 116289-53-3 *platelet-activating factor antagonist*



vamicamidum  
vamicamide

(±)-(R\*)-α-[(R\*)-2-(dimethylamino)propyl]-α-phenyl-2-pyridineacetamide  
C<sub>18</sub>H<sub>23</sub>N<sub>3</sub>O 132373-81-0 *anticholinergic, spasmolytic*

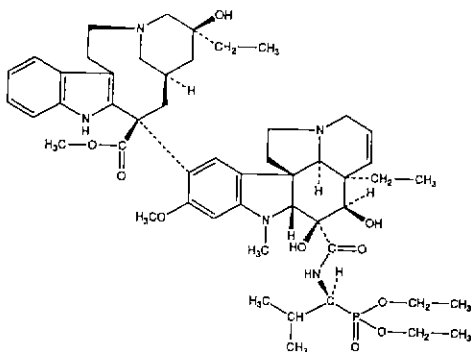


Proposed International  
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Chemical Abstracts Service (CAS) registry number  
Action and use

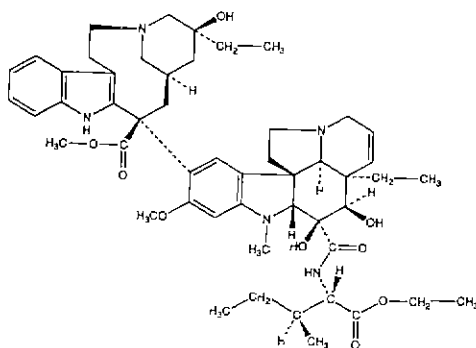
vinfosiltinum  
vinfoiltine

[23(*S*)]-4-deacetyl-3-de(methoxycarbonyl)-3-[(2-methyl-1-phosphonopropyl)carbamoyl]vincalokoblastine, diethyl ester  
 $C_{51}H_{72}N_5O_{10}P$  123286-00-0  
*antineoplastic*



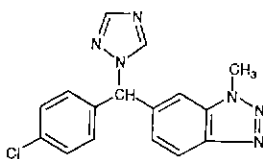
vinleucinolum  
vinleucinol

[23(1*S*,2*S*)]-4-deacetyl-3-[(1-carboxy-2-methylbutyl)carbamoyl]-3-(demethoxycarbonyl)vincalokoblastine, ethyl ester  
 $C_{57}H_{69}N_5O_9$   
*antineoplastic*



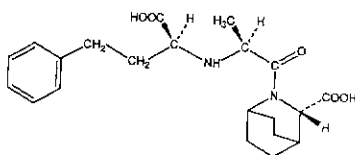
vorozolum  
vorozole

(+)-6-(*p*-chloro- $\alpha$ -1*H*-1,2,4-triazol-1-ylbenzyl)-1-methyl-1*H*-benzotriazole  
 $C_{16}H_{13}ClN_6$  129731-10-8  
*antineoplastic*



zabiciprilatum  
zabiciprilat

(*S*)-2-[(*S*)-*N*[(*S*)-1-carboxy-3-phenylpropyl]alaninyl]-2-azabicyclo[2.2.2]octane-3-carboxylic acid  
 $C_{21}H_{28}N_2O_5$  90103-92-7  
*antihypertensive*

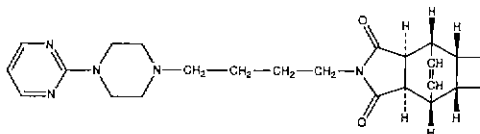


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae  
Chemical Abstracts Service (CAS) registry number  
Action and use

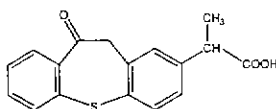
zalospironum  
zalospirone

(1*R*\*,2*R*\*,5*S*\*,6*S*\*,7*S*\*,8*R*\*)-*N*-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-  
tricyclo[4.2.2.0<sup>2,5</sup>]deca-3,9-diene-7,8-dicarboximide  
C<sub>24</sub>H<sub>29</sub>N<sub>5</sub>O<sub>2</sub> 114298-18-9 *anxiolytic*



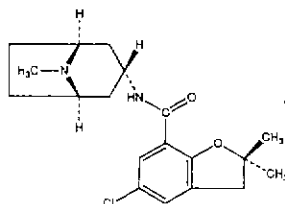
zidprofenum  
zidprofen

(±)-10,11-dihydro- $\alpha$ -methyl-10-oxodibenzo[*b,f*]thiepin-2-acetic acid  
C<sub>17</sub>H<sub>14</sub>O<sub>3</sub>S 89482-00-8 *analgesic, nonsteroidal anti-inflammatory*



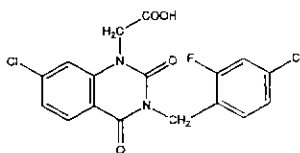
zatosetronum  
zatosetron

5-chloro-2,3-dihydro-2,2-dimethyl-*N*-1 $\alpha$ *H*,5 $\alpha$ *H*-tropan-3 $\alpha$ -yl-7-benzofuran-  
carboxamide  
C<sub>19</sub>H<sub>25</sub>ClN<sub>2</sub>O<sub>2</sub> 123482-22-4 *antimigraine*



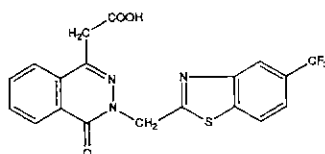
zenarestatum  
zenarestat

3-(4-bromo-2-fluorobenzyl)-7-chloro-3,4-dihydro-2,4-dioxo-1(2*H*)-quinazo-  
lineacetic acid  
C<sub>17</sub>H<sub>11</sub>BrClF<sub>2</sub>N<sub>2</sub>O<sub>4</sub> 112733-06-9 *aldose reductase inhibitor*



zopolrestatum  
zopolrestat

3,4-dihydro-4-oxo-3-[[5-(trifluoromethyl)-2-benzothiazolyl]methyl]-  
1-phthalazineacetic acid  
C<sub>19</sub>H<sub>12</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>S 110703-94-1 *aldose reductase inhibitor*



## Names for Radicals and Groups

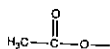
Some substances for which a proposed international nonproprietary name has been established may be used in the form of salts or esters. The radicals or groups involved

may be of complex composition and it is then inconvenient to refer to them in systematic chemical nomenclature. Consequently, shorter nonproprietary names for some radicals

and groups have been devised or selected, and they are suggested for use with the proposed international nonproprietary names.

acistras  
acistrate

2'-acetate, stearate (salt)  
 $C_{20}H_{38}O_4$



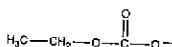
ester



salt (see)

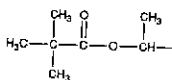
etabonas  
etabonate

ethyl carbonate  
 $C_3H_5O_3$



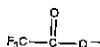
pivetilum  
pivetil

1-hydroxyethyl pivalate (ester)  
 $C_7H_{13}O_3$



triflutas  
triflutate

trifluoroacetate  
 $C_2HF_3O_2$



## AMENDMENTS.

Chronicle of the World Health Organization, Vol. 7,  
No. 10, 1953

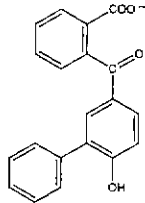
### Proposed International Nonproprietary Names (Prop. INN): List 1

- p 118 polyvidonum  
polyvidone
- replace the chemical name by the following*  
1-vinyl-2-pyrrolidinone polymer, linear

WHO Chronicle, Vol. 24, No. 9, 1970

### Proposed International Nonproprietary Names (Prop. INN): List 24

- p. 433 fendizoatum  
fendizoate
- replace the chemical name, the CAS registry number and the graphic formula by the following:*  
2-[(6-hydroxybiphenyl-3-yl)carbonyl]benzoate  
84627-04-3



Supplement to WHO Chronicle, Vol. 34, No. 9, 1980

### Proposed International Nonproprietary Names (Prop. INN): List 44

- p. 5 loprazolamum  
lopazolam
- replace the chemical name and the CAS registry number by the following:*  
(Z)-6-(o-chlorophenyl)-2,4-dihydro-2-[(4-methyl-1-piperazinyl)methylene]-  
8-nitro-1H-imidazo[1,2-a][1,4]benzodiazepin-1-one  
70111-54-5

Supplement to WHO Chronicle, Vol. 38, No. 4, 1984

### Proposed International Nonproprietary Names (Prop. INN): List 52

- p. 9 enoxaparinum  
enoxaparin
- delete the whole entry*
- insert*  
enoxaparinum natrium  
enoxaparin sodium
- insert*

Sodium salt of depolymerized heparin obtained by alkaline degradation of heparin benzyl ester from pork intestinal mucosa; the majority of the components present a 2-O-sulfo-4-enopyranosuronic acid structure at the non-reducing end and a 2-N,6-O-disulfo-D-glucosamine structure at the reducing end of their chain; the average relative molecular mass is about 4500, ranging between 3500 and 5500, the degree of sulfatation is about 2 per disaccharidic unit.

anticoagulant

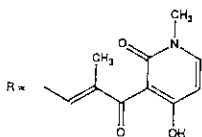
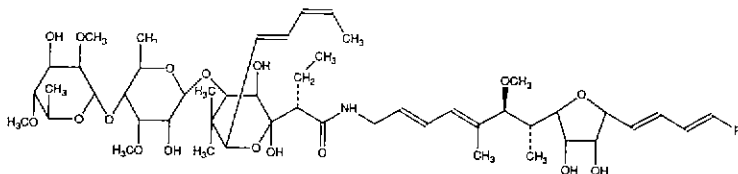
**Proposed International Nonproprietary Names (Prop. INN): List 55**

p. 17 efrotomycinum  
efrotomycin

replace the chemical name, and the graphic formula by the following:

an antibiotic produced by *Streptomyces lactamdurans*  
efrotomycin A, or

(*αS,2R,3R,4R,6S*)-4-[[6-deoxy-4-*O*-(6-deoxy-2,4-di-*O*-methyl-*α*-L-manno-  
pyranosyl)-3-*O*-methyl-*β*-D-allopyranosyl]oxy]-*N*-{[(2*E,4E,6S,7R*)-7-[(2*S,3S*-  
4*R,5R*)-5-[(1*E,3E,5E*)-6-(1,2-dihydro-4-hydroxy-1-methyl-2-oxonicotinoyl)-  
1,3,5-heptatrienyl]tetrahydro-3,4-dihydroxy-2-furyl]-6-methoxy-5-methyl-2,4-  
octadienyl]-*α*-ethyltetrahydro-2,3-dihydroxy-5,5-dimethyl-6-[(1*E,3Z*)-1,3-  
pentadienyl]-2*H*-pyran-2-acetamide



WHO Drug Information, Vol. 1, No. 3, 1987

**Proposed International Nonproprietary Names (Prop. INN): List 58**

p. 182 delete  
levdropropizinum  
levdropropizine

insert  
levdropropizinum  
levdropropizine

WHO Drug Information, Vol. 2, No. 4, 1988

**Proposed International Nonproprietary Names (Prop. INN): List 60**

p. 2 acemannanum  
acemannan

delete the graphic formula and replace the description by the following:

Acemannan is a highly acetylated, polydispersed, linear mannan obtained from the mucilage of *Aloe barbadensis*, Miller (aloe vera).

WHO Drug Information, Vol. 3, No. 2, 1989

**Proposed International Nonproprietary Names (Prop. INN): List 61**

p. 14 moxidectinum  
moxidectin

replace the chemical name by the following:

(6*R,25S*)-5-*O*-demethyl-28-deoxy-25-[(*E*)-1,3-dimethyl-1-butenyl]-6,28-epoxy-  
23-oxomilbemycin B 23-(*E*)-(1-*O*-methyloxime)

p. 17 delete  
taludipinum  
taludipine

insert  
teludipinum  
teludipine

WHO Drug Information, Vol. 3, No. 4, 1989

**Proposed International Nonproprietary Names (Prop. INN): List 62**

- p. 8 fosquidonum  
fosquidone
- replace the chemical name by the following:*  
benzyl ( $\pm$ )-5,8,13,14-tetrahydro-14-methyl-8,13-dioxobenz[5,6]isoindolo-  
[2,1-*b*]isoquinolin-9-yl hydrogen phosphate

WHO Drug Information, Vol. 4, No. 2, 1990

**Proposed International Nonproprietary Names (Prop. INN): List 63**

- p. 5 doramectinum  
doramectin
- replace the chemical name by the following:*  
25-cyclohexyl-5-*O*-demethyl-25-de(1-methylpropyl)avermectin A<sub>1</sub> or  
(2*aE*,4*E*,8*E*)-5'*S*,6*S*,6'*R*,7*S*,11*R*,13*S*,15*S*,17*aR*,20*R*,20*aR*,20*bS*)-6'-cyclohexyl-  
5',6,6',7,10,11,14,15,17*a*,20,20*a*,20*b*-dodecahydro-20,20*b*-dihydroxy-5',6,8,19-  
tetramethyl-17-oxospiro[11,15-methano-2*H*,13*H*,17*H*-furo-  
[4,3,2-*pp*][2,6]benzodioxacyclooctadecin-13,2'-[2*H*]pyran]-7-yl 2,6-dideoxy-4-  
*O*-(2,6-dideoxy-3-*O*-methyl- $\alpha$ -*L*-arabino-hexopyranosyl)-3-*O*-methyl- $\alpha$ -*L*-  
arabino-hexopyranoside
- p. 6 giracodazolum  
giracodazole
- replace the chemical name by the following:*  
(*aS*)-2-amino- $\alpha$ -[(1*S*)-2-amino-1-chloroethyl]imidazole-4-methanol
- p. 8 nemazolinum  
nemazoline
- insert the following CAS registry number.*  
130759-56-7
- neticonazolum  
neticonazole
- replace the CAS registry number by the following:*  
130726-68-0
- p. 14 tenosiproium  
tensiprol
- insert the following CAS registry number.*  
129336-81-8
- p. 16 zilascorbium (<sup>2</sup>H)  
zilascorb (<sup>2</sup>H)
- replace the chemical name by the following:*  
5,6-*O*-[(*RS*)-benzylidene- $\alpha$ -*d*]-*L*-ascorbic acid

**Procedure and Guiding Principles**

The text of the *Procedures for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances and General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances* will from now on be reproduced in uneven numbers of proposed INN lists only.