

# 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 the World Health Organiza-

tion 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 the *WHO Chronicle*.

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.

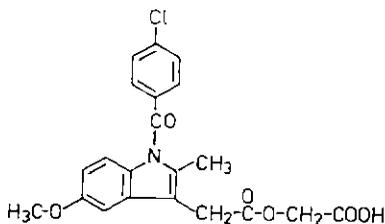
## Proposed International Nonproprietary Names (Prop. INN): List 32<sup>2</sup>

Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

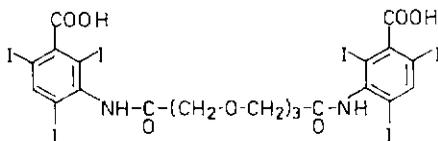
acemetacinum  
acemetacin

1-(*p*-chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid ester with glycolic acid  
 $C_{21}H_{16}ClNO_6$



acidum iotroxicum  
iotroxic acid

3,3'-[oxybis(ethyleneoxymethylenecarbonylimino)]bis[2,4,6-triodobenzoic acid]  
 $C_{22}H_{18}I_6N_2O_9$



<sup>1</sup> See Annex, p 23.

<sup>2</sup> Other lists of proposed international nonproprietary names can be found in *Chron. Wild Hlth Org.*, 1953, 7, 299; 1954, 8, 216, 313; 1956, 10, 28; 1957, 11, 231; 1958, 12, 102; *WHO Chronicle*, 1959, 13, 105, 152; 1960, 14, 168, 244; 1961, 15, 314; 1962, 16, 385; 1963, 17, 389; 1964, 18, 433; 1965, 19, 446; 1966, 20, 216; 1967, 21, 70, 478; 1968, 22, 112, 407; 1969, 23, 183, 418; 1970, 24, 119, 413; 1971, 25, 123, 415; 1972, 26, 121, 414; 1973, 27, 120, 330; 1974, 28, 133.

Lists of recommended international nonproprietary names were published in *Chron. Wild Hlth Org.*, 1955, 9, 185; *WHO Chronicle*, 1959, 13, 106, 463; 1962, 16, 101; 1965, 19, 165, 206, 249; 1966, 20, 421; 1967, 21, 538; 1968, 22, 463; 1969, 23, 490; 1970, 24, 526; 1971, 25, 476; 1972, 26, 476; 1973, 27, 453.

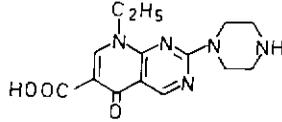
All names from lists 1-25 of proposed international nonproprietary names, together with a molecular formula index, will be found in World Health Organization (1971) *International nonproprietary names for pharmaceutical substances. Cumulative list No. 3, 1971*, Geneva, 189 pages (price: £3, \$7.20, or Sw. fr 24.—). This publication may be obtained from the sales agents listed on the back cover of the *WHO Chronicle* or from: World Health Organization, Distribution and Sales Service, 1211 Geneva 27, Switzerland.

Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

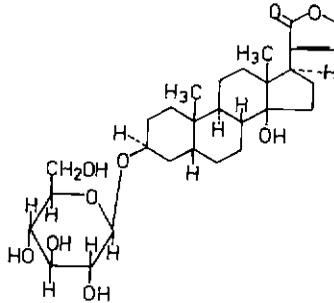
acidum pipemidicum  
pipemidic acid

8-ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)pyrido[2,3-*d*]pyrimidine-6-  
carboxylic acid  
 $C_{14}H_{17}N_5O_3$



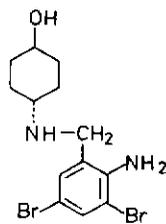
actodiginum  
actodigin

3 $\beta$ -( $\beta$ -D-glucopyranosyloxy)-14,23-dihydroxy-24-nor-5 $\beta$ ,14 $\beta$ -chol-20(22)-  
en-21-oic acid  $\gamma$ -lactone  
 $C_{29}H_{44}O_9$



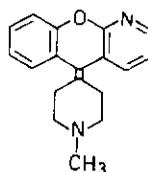
ambroxolum  
ambroxol

*trans*-4-[(2-amino-3,5-dibromobenzyl)amino]cyclohexanol  
 $C_{13}H_{18}Br_2N_2O$



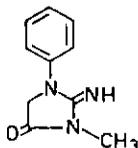
azanatorum  
azanator

5-(1-methyl-4-piperidylidene)-5*H*-[1]benzopyrano[2,3-*b*]pyridine  
 $C_{19}H_{18}N_2O$



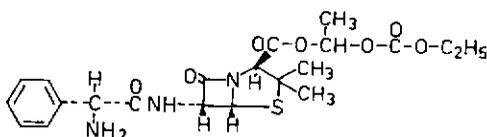
azoliminum  
azolimine

2-imino-3-methyl-1-phenyl-4-imidazolidinone  
C<sub>10</sub>H<sub>11</sub>N<sub>3</sub>O



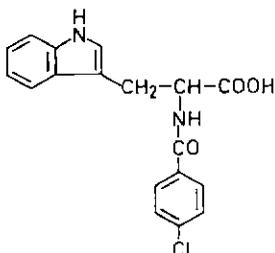
bacampicillinum  
bacampicillin

(2*S*,5*R*,6*R*)-6-[(*R*)-(2-amino-2-phenylacetamido)]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid ester with ethyl 1-hydroxyethyl carbonate  
C<sub>21</sub>H<sub>27</sub>N<sub>3</sub>O<sub>7</sub>S



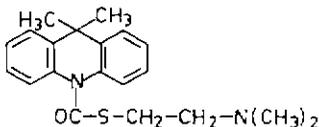
benzotriptum  
benzotript

*N*-(*p*-chlorobenzoyl)-L-tryptophan  
C<sub>18</sub>H<sub>15</sub>ClN<sub>2</sub>O<sub>3</sub>



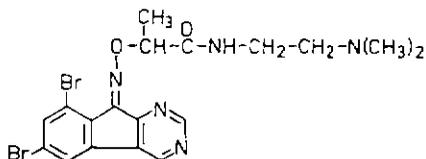
acrinum  
botiacrine

*S*-[2-(dimethylamino)ethyl] 9,9-dimethyl-10-acridancarbothioate  
C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>OS



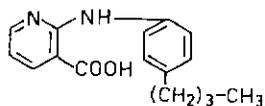
brindoximum  
brindoxime

2-[[[6,8-dibromo-9*H*-indeno[2,1-*d*]pyrimidin-9-ylidene)amino]oxy]-*N*-[2-(dimethylamino)ethyl]propionamide  
C<sub>18</sub>H<sub>19</sub>Br<sub>2</sub>N<sub>5</sub>O<sub>2</sub>



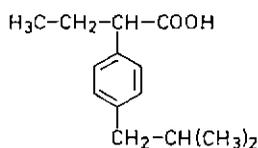
butanixinum  
butanixin

2-(*p*-butylanilino)nicotinic acid  
C<sub>16</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>



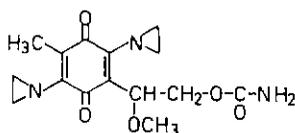
butibufenum  
butibufen

2-(*p*-isobutylphenyl)butyric acid  
C<sub>14</sub>H<sub>20</sub>O<sub>2</sub>



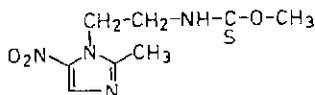
carboquonum  
carboquone

2,5-bis(1-aziridinyl)-3-(2-hydroxy-1-methoxyethyl)-6-methyl-*p*-  
benzoquinone carbamate (ester)  
C<sub>15</sub>H<sub>19</sub>N<sub>3</sub>O<sub>5</sub>



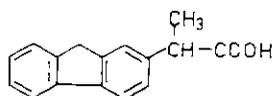
carnidazolum  
carnidazole

*O*-methyl [2-(2-methyl-5-nitroimidazol-1-yl)ethyl]thiocarbamate  
C<sub>8</sub>H<sub>12</sub>N<sub>4</sub>O<sub>3</sub>S



cicloprofenum  
cicloprofen

$\alpha$ -methylfluorene-2-acetic acid  
C<sub>16</sub>H<sub>14</sub>O<sub>2</sub>

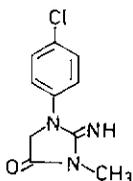


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

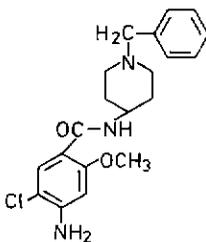
clazoliminum  
clazolimine

1-(*p*-chlorophenyl)-2-imino-3-methyl-4-imidazolidinone  
 $C_{10}H_{10}ClN_3O$



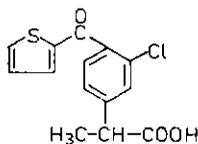
clebopridum  
clebopride

4-amino-*N*-(1-benzyl-4-piperidyl)-5-chloro-*o*-anisamide  
 $C_{20}H_{24}ClN_3O_2$



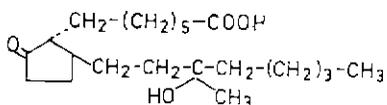
cliprofenum  
cliprofen

3-chloro-4-(2-thenoyl)hydratropic acid  
 $C_{14}H_{11}ClO_3S$



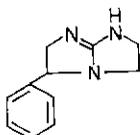
deprostilum  
deprostil

(1*R*,2*S*)-2-(3-hydroxy-3-methyloctyl)-5-oxocyclopentaneheptanoic acid  
 $C_{21}H_{38}O_4$



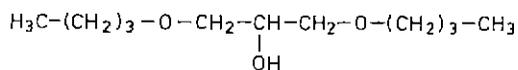
deximafenum  
deximafen

(+)-2,3,5,6-tetrahydro-5-phenyl-1*H*-imidazo[1,2-*a*]imidazole  
C<sub>11</sub>H<sub>13</sub>N<sub>3</sub>



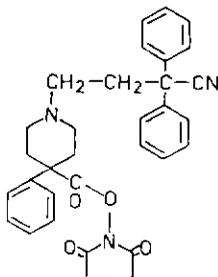
dibuprolum  
dibuprol

1,3-dibutoxy-2-propanol  
C<sub>11</sub>H<sub>24</sub>O<sub>3</sub>



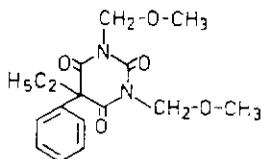
difenoximidum  
difenoximide

*N*-[[1-(3-cyano-3,3-diphenylpropyl)-4-phenylisonipecotoyl]oxy]succinimide  
C<sub>32</sub>H<sub>31</sub>N<sub>3</sub>O<sub>4</sub>



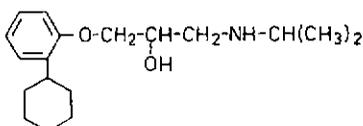
eterobarbum  
eterobarb

5-ethyl-1,3-bis(methoxymethyl)-5-phenylbarbituric acid  
C<sub>16</sub>H<sub>20</sub>N<sub>2</sub>O<sub>5</sub>



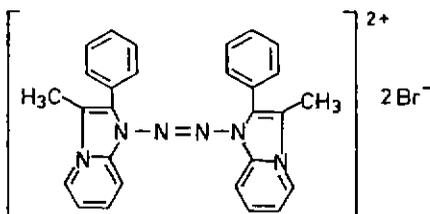
exaprololum  
exaprolol

1-(*o*-cyclohexylphenoxy)-3-(isopropylamino)-2-propanol  
C<sub>18</sub>H<sub>29</sub>NO<sub>2</sub>



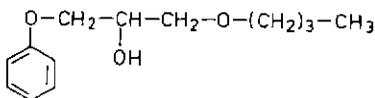
fazadinii bromidum  
fazadinium bromide

1,1'-azobis[3-methyl-2-phenyl-1*H*-imidazo[1,2-*a*]pyridin-4-ium] dibromide  
C<sub>28</sub>H<sub>24</sub>Br<sub>2</sub>N<sub>6</sub>



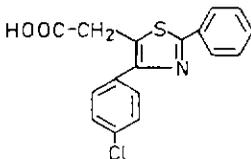
febuprolum  
febuprol

1-butoxy-3-phenoxy-2-propanol  
C<sub>13</sub>H<sub>20</sub>O<sub>3</sub>



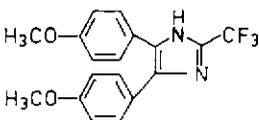
fiazacum  
fiazac

4-(*p*-chlorophenyl)-2-phenyl-5-thiazoleacetic acid  
C<sub>17</sub>H<sub>12</sub>ClNO<sub>2</sub>S



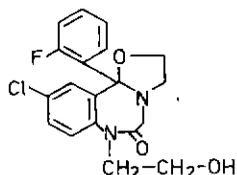
flumizolum  
flumizole

4,5-bis(*p*-methoxyphenyl)-2-(trifluoromethyl)imidazole  
C<sub>16</sub>H<sub>15</sub>F<sub>3</sub>N<sub>2</sub>O<sub>2</sub>



flutazolamum  
flutazolam

10-chloro-11b-(*o*-fluorophenyl)-2,3,7,11b-tetrahydro-7-(2-hydroxyethyl)-  
oxazolo[3,2-*d'*][1,4]benzodiazepin-6(5*H*)-one  
C<sub>19</sub>H<sub>18</sub>ClFN<sub>2</sub>O<sub>3</sub>



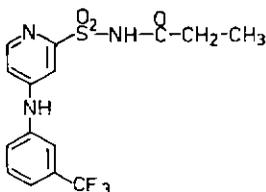
ftaxilidum  
ftaxilide

2',6'-dimethylphthalanilic acid  
C<sub>16</sub>H<sub>15</sub>NO<sub>3</sub>



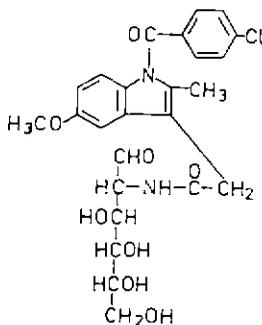
galosemidum  
galosemide

*N*-[[4-( $\alpha,\alpha,\alpha$ -trifluoro-*m*-toluidino)-2-pyridyl]sulfonyl]propionamide  
C<sub>15</sub>H<sub>14</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>S



glucametacinum  
glucametacin

2-[2-[1-(*p*-chlorobenzoyl)-5-methoxy-2-methylindol-3-yl]acetamido]-2-  
deoxy-D-glucose  
C<sub>25</sub>H<sub>27</sub>ClN<sub>2</sub>O<sub>8</sub>



gonadorelinum  
gonadorelin

luteinizing hormone-releasing factor (pig) ; 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolylglycinamide  
C<sub>55</sub>H<sub>75</sub>N<sub>17</sub>O<sub>13</sub>

H-5-oxo-L-Pro-L-His-L-Trp-L-Ser-L-Tyr-  
-Gly-L-Leu-L-Arg-L-Pro-Gly-NH<sub>2</sub>

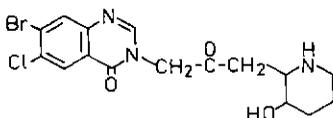
guabenzanum  
guabenzan

(1,4-benzodioxan-6-ylmethyl)guanidine  
C<sub>10</sub>H<sub>13</sub>N<sub>3</sub>O<sub>2</sub>



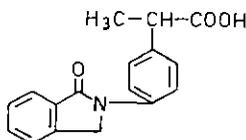
halofuginonum  
halofuginone

(±)-*trans*-7-bromo-6-chloro-3-[3-(3-hydroxy-2-piperidyl)acetyl]-4(3*H*)-quinazolinone  
C<sub>16</sub>H<sub>17</sub>BrClN<sub>3</sub>O<sub>3</sub>



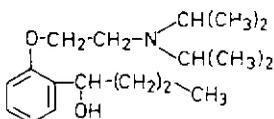
indoprofenum  
indoprofen

*p*-(1-oxo-2-isoindolinyl)hydratropic acid  
C<sub>17</sub>H<sub>15</sub>NO<sub>3</sub>



ketocainolum  
ketocainol

*o*-[2-(diisopropylamino)ethoxy]-*o*-propylbenzyl alcohol  
C<sub>18</sub>H<sub>31</sub>NO<sub>2</sub>



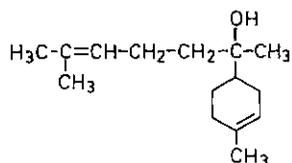
lergotrilum  
lergotrile

2-chloro-6-methylergoline-8β-acetonitrile  
C<sub>17</sub>H<sub>18</sub>ClN<sub>3</sub>



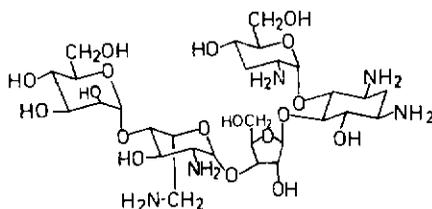
levomenolum  
levomenol

(-)-6-methyl-2-(4-methyl-3-cyclohexen-1-yl)-5-hepten-2-ol  
C<sub>15</sub>H<sub>26</sub>O



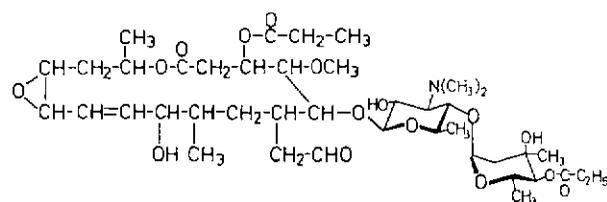
lividomycinum  
lividomycin

lividomycin A; O-2-amino-2,3-dideoxy- $\alpha$ -D-*ribo*-hexopyranosyl-(1 $\rightarrow$ 4)-O-[O- $\alpha$ -D-mannopyranosyl-(1 $\rightarrow$ 4)-O-2,6-diamino-2,6-dideoxy- $\beta$ -L-ido-pyranosyl (1 $\rightarrow$ 3)- $\beta$ -D-ribofuranosyl-(1 $\rightarrow$ 5)]-2-deoxy-D-streptamine  
C<sub>29</sub>H<sub>55</sub>N<sub>5</sub>O<sub>16</sub>



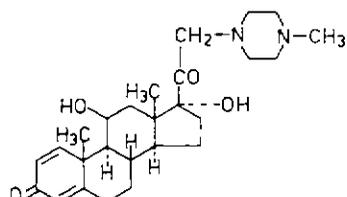
maridomycinum  
maridomycin

10-(formylmethyl)-7,13-dihydroxy-8-methoxy-3,12-dimethyl-5-oxo-4,17-dioxabicyclo[14.1.0]heptadec-14-en-9-yl 3,6-dideoxy-4-O-(2,6-dideoxy-3-C-methyl- $\alpha$ -L-*ribo*-hexopyranosyl)-3-(dimethylamino)- $\beta$ -D-glucopyranoside 4',7'-dipropionate (ester)  
C<sub>41</sub>H<sub>67</sub>N<sub>2</sub>O<sub>16</sub>



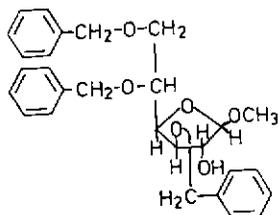
mazipredonum  
mazipredone

11 $\beta$ ,17-dihydroxy-21-(4-methyl-1-piperazinyl)pregna-1,4-diene-3,20-dione  
C<sub>26</sub>H<sub>38</sub>N<sub>2</sub>O<sub>4</sub>



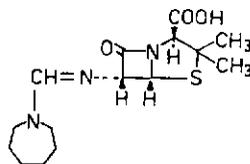
mebenosidum  
mebenoside

methyl 3,5,6-tri-*O*-benzyl-D-glucufuranoside  
 $C_{28}H_{32}O_6$



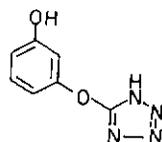
mecillinamum  
mecillinam

(2*S*,5*R*,6*R*)-6-[[hexahydro-1*H*-azepin-1-yl)methylene]amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid  
 $C_{15}H_{23}N_3O_3S$



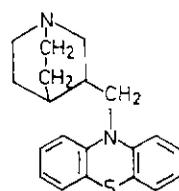
melizamum  
melizame

*m*-(1*H*-tetrazol-5-yloxy)phenol  
 $C_7H_6N_4O_2$



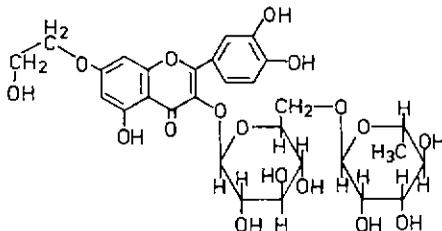
mequitazinum  
mequitazine

10-(3-quinuclidinylmethyl)phenothiazine  
 $C_{20}H_{22}N_2S$



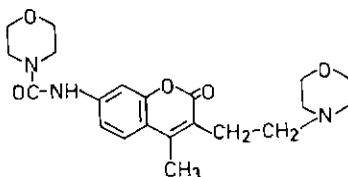
monoxerutinum  
monoxerutin

3,3',4',5-tetrahydroxy-7-(2-hydroxyethoxy)flavone 3-[6-O-(6-deoxy- $\alpha$ -L-mannopyranosyl)- $\beta$ -D-glucopyranoside]  
C<sub>29</sub>H<sub>34</sub>O<sub>17</sub>



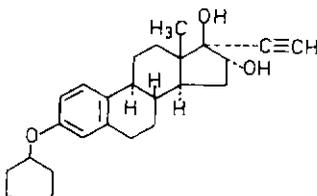
morocromenum  
morocromen

4-methyl-7-(4-morpholinecarboxamido)-3-(2-morpholinoethyl)coumarin  
C<sub>21</sub>H<sub>27</sub>N<sub>3</sub>O<sub>5</sub>



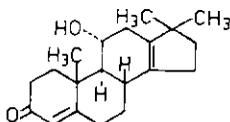
nilestriolum  
nilestriol

3-(cyclopentyloxy)-19-nor-17 $\alpha$ -pregna-1,3,5(10)-trien-20-yne-16 $\alpha$ ,17-diol  
C<sub>25</sub>H<sub>32</sub>O<sub>3</sub>



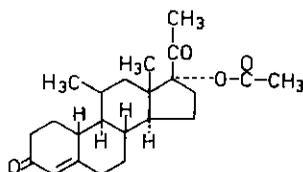
nordinonum  
nordinone

11 $\alpha$ -hydroxy-17,17-dimethyl-18-norandrosta-4,13-dien-3-one  
C<sub>20</sub>H<sub>28</sub>O<sub>2</sub>



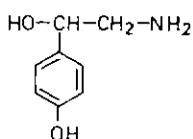
norgestometum  
norgestomet

17-hydroxy-11 $\beta$ -methyl-19-norpregn-4-ene-3,20-dione acetate  
C<sub>29</sub>H<sub>32</sub>O<sub>4</sub>



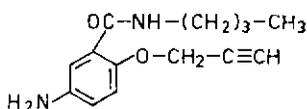
octopaminum  
octopamine

$\alpha$ -(aminomethyl)-*p*-hydroxybenzyl alcohol  
C<sub>8</sub>H<sub>11</sub>NO<sub>2</sub>



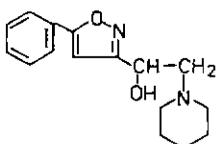
parsalmidum  
parsalimide

5-amino-*N*-butyl-2-(2-propynyloxy)benzamide  
C<sub>14</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>



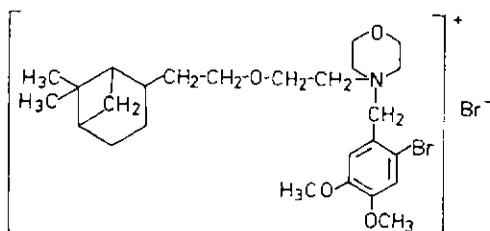
perisoxalum  
perisoxal

$\alpha$ -(5-phenyl-3-isoxazolyl)-1-piperidineethanol  
C<sub>16</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>



pinaverii bromidum  
pinaverium bromide

4-(6-bromoveratryl)-4-[2-[2-(6,6-dimethyl-2-norpinyloxy)ethyl]-  
morpholinium bromide  
C<sub>26</sub>H<sub>41</sub>Br<sub>2</sub>NO<sub>4</sub>

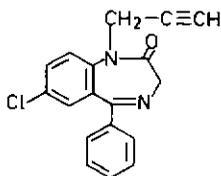


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

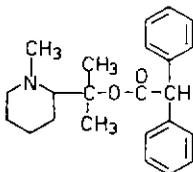
pinazepamum  
pinazepam

7-chloro-1,3-dihydro-5-phenyl-1-(2-propynyl)-2H-1,4-benzodiazepin-2-one  
 $C_{18}H_{13}ClN_2O$



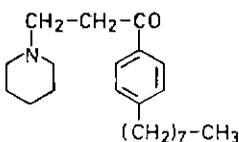
pinolcainum  
pinolcaine

D-(+)-1-methyl-1-(1-methyl-2-piperidyl)ethyl diphenylacetate  
 $C_{23}H_{29}NO_2$



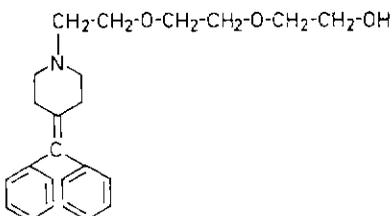
pipoctanonum  
pipoctanone

4'-octyl-3-piperidinopropiophenone  
 $C_{22}H_{35}NO$



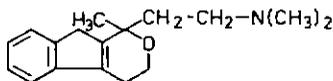
pipoxizinum  
pipoxizine

2-[2-[2-[4-(diphenylmethylene)piperidino]ethoxy]ethoxy]ethanol  
 $C_{24}H_{31}NO_3$



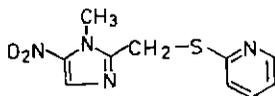
pirandaminum  
pirandamine

1,3,4,9-tetrahydro-*N,N*,1-trimethylindeno[2,1-*c*]pyran-1-ethylamine  
C<sub>17</sub>H<sub>23</sub>NO



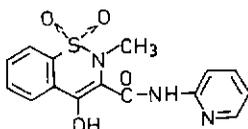
pirinidazolium  
pirinidazole

2-[[[1-methyl-5-nitroimidazol-2-yl)methyl]thio]pyridine  
C<sub>10</sub>H<sub>10</sub>N<sub>4</sub>O<sub>2</sub>S



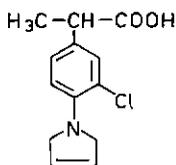
piroxicamum  
piroxicam

4-hydroxy-2-methyl-*N*-2-pyridyl-2*H*-1,2-benzothiazine-3-carboxamide 1,1-dioxide  
C<sub>15</sub>H<sub>13</sub>N<sub>3</sub>O<sub>4</sub>S



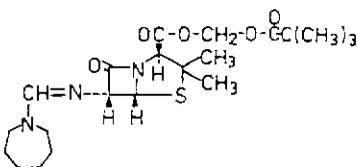
pirprofenum  
pirprofen

3-chloro-4-(3-pyrrolin-1-yl)hydratropic acid  
C<sub>13</sub>H<sub>14</sub>ClNO<sub>2</sub>



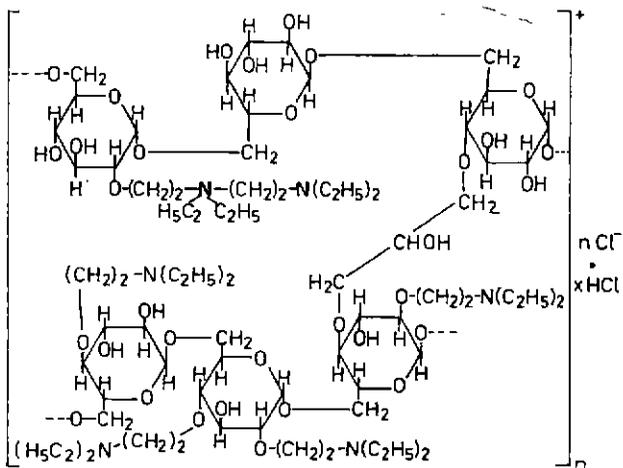
pivmecillinamum  
pivmecillinam

hydroxymethyl (2*S*,5*R*,6*R*)-6-[[[(hexahydro-1*H*-azepin-1-yl)methylene]-amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylate pivalate (ester)  
C<sub>21</sub>H<sub>33</sub>N<sub>3</sub>O<sub>5</sub>S



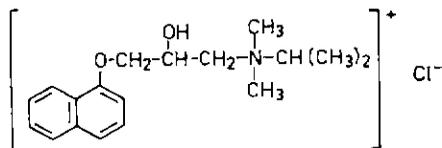
polidexidum  
polidexide

dextran 2-(diethylamino)ethyl 2-[[2-(diethylamino)ethyl]diethylammonio]-  
ethyl ether chloride, hydrochloride, epichlorohydrin crosslinked



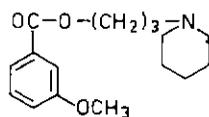
pranolii chloridum  
pranolium chloride

[2-hydroxy-3-(1-naphthyl)oxy]propyl]isopropylidimethylammonium chloride  
 $C_{18}H_{26}ClNO_2$



pribecainum  
pribecaine

3-piperidinopropyl *m*-anisate  
 $C_{15}H_{23}NO_3$

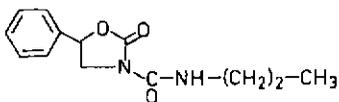


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

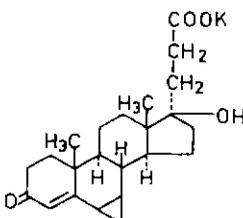
profexalonum  
profexalone

2-oxo-5-phenyl-*N*-propyl-3-oxazolidinecarboxamide  
 $C_{13}H_{16}N_2O_3$



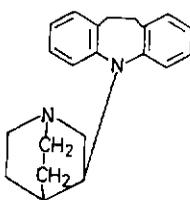
pregnenatum kalicum  
pregnenate potassium

potassium 6,7-dihydro-17-hydroxy-3-oxo-3'*H*-cyclopropra[6,7]-17 $\alpha$ -  
pregna-4,6-diene-21-carboxylate  
 $C_{23}H_{31}KO_4$



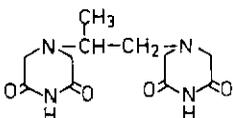
quinupraminum  
quinupramine

10,11-dihydro-5-(3-quinuclidinyl)-5*H*-dibenz[*b,f*]azepine  
 $C_{21}H_{24}N_2$



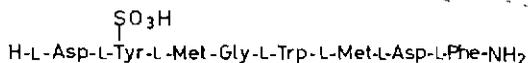
razoxanum  
razoxane

4,4'-propylenedi-2,6-piperazinedione  
 $C_{11}H_{16}N_4O_4$



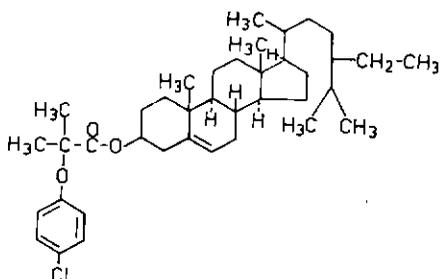
sincalidum  
sincalide

L-aspartyl-L-tyrosyl-L-methionylglycyl-L-tryptophyl-L-methionyl-L-aspartylphenyl-L-alaninamide hydrogen sulfate (ester) or 1-de(5-oxo-L-proline)-2-de-L-glutamine-5-L-methioninecaerulein  
C<sub>49</sub>H<sub>62</sub>N<sub>10</sub>O<sub>16</sub>S<sub>3</sub>



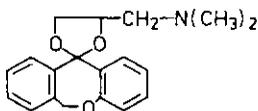
sitofibratum  
sitofibrate

stigmaster-5-en-3β-ol 2-(p-chlorophenoxy)-2-methylpropionate  
C<sub>39</sub>H<sub>59</sub>ClO<sub>3</sub>



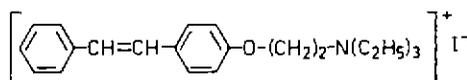
spiroxepinum  
spiroxepin

N,N-dimethylspiro[dibenz[b,e]oxepin-11(6H),2'-[1,3]dioxolane]-4'-methylamine  
C<sub>19</sub>H<sub>21</sub>NO<sub>3</sub>



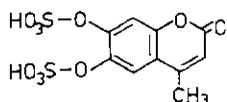
stilonii iodidum  
stilonium iodide

triethyl[2-(p-styrylphenoxy)ethyl]ammonium iodide  
C<sub>22</sub>H<sub>30</sub>INO



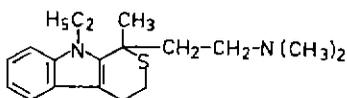
sulimarinum  
sulimarín

6,7-dihydroxy-4-methylcoumarin bis(hydrogensulfate)  
C<sub>10</sub>H<sub>8</sub>O<sub>10</sub>S<sub>2</sub>



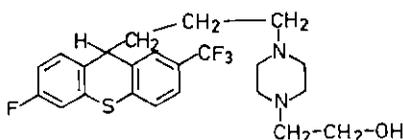
tandaminum  
tandamine

1-[2-(dimethylamino)ethyl]-9-ethyl-1,3,4,9-tetrahydro-1-methylthiopyrano-  
[3,4-*b*]indole  
C<sub>18</sub>H<sub>26</sub>N<sub>2</sub>S



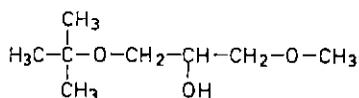
teflutixolum  
teflutixol

4-[3-[6-fluoro-2-(trifluoromethyl)thioxanthen-9-yl]propyl]-1-  
piperazineethanol  
C<sub>23</sub>H<sub>26</sub>F<sub>4</sub>N<sub>2</sub>OS



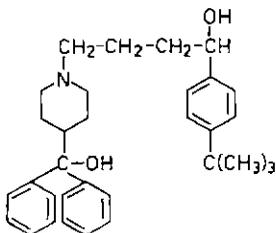
terbuprolum  
terbuprol

1-*tert*-butoxy-3-methoxy-2-propanol  
C<sub>8</sub>H<sub>18</sub>O<sub>3</sub>



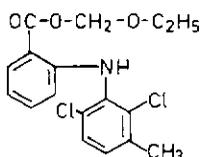
terfenadinum  
terfenadine

$\alpha$ -(*p*-*tert*-butylphenyl)-4-(hydroxydiphenylmethyl)-1-piperidinebutanol  
C<sub>32</sub>H<sub>41</sub>NO<sub>2</sub>



terofenamatum  
terofenamate

ethoxymethyl *N*-(2,6-dichloro-*m*-tolyl)anthranilate  
C<sub>17</sub>H<sub>17</sub>Cl<sub>2</sub>NO<sub>3</sub>

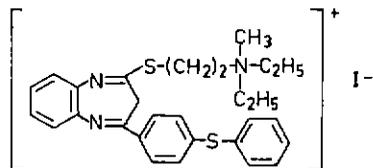


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

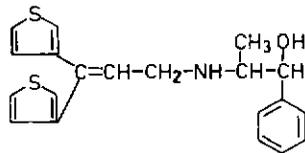
tibezonii iodidum  
tibezonium iodide

diethylmethyl[2-[4-[*p*-(phenylthio)phenyl]-3*H*-1,5-benzodiazepin-2-yl]thio]ethyl]ammonium iodide  
C<sub>28</sub>H<sub>32</sub>I<sub>3</sub>N<sub>3</sub>S<sub>2</sub>



tinofedrinum  
tinofedrine

$\alpha$ -[1-[(3,3-di-3-thienylallyl)amino]ethyl]benzyl alcohol  
C<sub>20</sub>H<sub>21</sub>NO<sub>2</sub>



trociminum  
trocinime

octahydro-1-(3,4,5-trimethoxybenzoyl)azocine  
C<sub>17</sub>H<sub>25</sub>NO<sub>4</sub>



**AMENDMENTS  
TO PREVIOUS LISTS**

Vol. 25, No. 3

**Proposed International Nonproprietary Names (Prop. INN): List 25**

p. 129	<i>delete</i> cloxifenolum cloxifenol	<i>insert</i> triclosanum triclosan
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Vol. 26, No. 9

**Proposed International Nonproprietary Names (Names (Prop. INN): List 28**

p. 427	<i>delete</i> oxaprazinum oxaprazine	10- [3- [4- (2- <i>m</i> -dioxan-2-ylethyl)-1-piperazinyl]propyl]pheno- thiazine C <sub>25</sub> H <sub>33</sub> N <sub>3</sub> O <sub>2</sub> S
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Vol. 27, No. 3

**Proposed International Nonproprietary Names (Prop. INN): List 29**

p. 131	<i>delete</i> lisocillidum lisocillide	<i>insert</i> libecillidum libecillide
p. 138	timololum timolol	replace molecular formula by the following : C <sub>13</sub> H <sub>24</sub> N <sub>4</sub> O <sub>3</sub> S

Vol. 27, No. 9

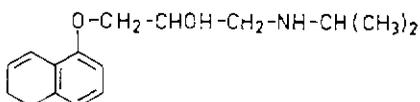
**Proposed International Nonproprietary Names (Prop. INN): List 30**

p. 380	<i>delete</i> acidum azolinicum azolinic acid	<i>insert</i> cinoxacinum cinoxacin
p. 388	dexnorgestrelum dexnorgestrel	replace chemical name by the following : D-13-ethyl-17-hydroxy-18,19-dinor-17 $\alpha$ -pregn-4-en-20-yn-3-one

Vol. 28, No. 3

**Proposed International Nonproprietary Names (Prop. INN): List 31**

p. 144	idropranololum idropranolol	replace graphic formula by the following :
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## International Nonproprietary Names for Pharmaceutical Substances: Cumulative List No. 3, 1971

p. 121 *delete the following entries*

- sorbimacrogoli lauras 300	sorbimacrogoli stearas 300
sorbimacrogol laurate 300	sorbimacrogol stearate 300
sorbimacrogoli oleas 100	sorbimacrogoli trioleas 300
sorbimacrogol oleate 100	sorbimacrogol trioleate 300
- sorbimacrogoli oleas 300	sorbimacrogoli tristearas 300
sorbimacrogol oleate 300	sorbimacrogol tristearate 300
sorbimacrogoli palmitas 300	
- sorbimacrogol palmitate 300	

p. 110 *insert after the entry " polynoxylinum "*

polysorbatum  
/ polysorbate

polyoxyethylene derivative of cyclic sorbitol  
anhydrides partially esterified with a fatty acid.

The numbered polysorbates indicated below refer to the following compounds: e.g.

polysorbate 20: polyethylene 20 sorbitan* monolaurate	C <sub>58</sub> H <sub>114</sub> O <sub>26</sub> (nominal)
polysorbate 40: polyethylene 20 sorbitan* monopalmitate	C <sub>62</sub> H <sub>122</sub> O <sub>26</sub> (nominal)
polysorbate 60: polyethylene 20 sorbitan* monostearate	C <sub>64</sub> H <sub>126</sub> O <sub>26</sub> (nominal)
polysorbate 65: polyethylene 20 sorbitan* tristearate	C <sub>100</sub> H <sub>124</sub> O <sub>28</sub> (nominal)
polysorbate 80: polyethylene 20 sorbitan* mono-oleate	C <sub>64</sub> H <sub>124</sub> O <sub>26</sub> (nominal)
polysorbate 85: polyethylene 20 sorbitan* trioleate	C <sub>100</sub> H <sub>188</sub> O <sub>28</sub> (nominal)

\* polyoxyethylene 20 sorbitan corresponds to tris(polyethylene glycol 300) sorbitan ethers.

## Annex

### PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES \*

The following procedure shall be followed by the World Health Organization in the selection of recommended international nonproprietary names for pharmaceutical substances, in accordance with the World Health Assembly resolution WHA3.11 :

1. Proposals for recommended international nonproprietary names shall be submitted to the World Health Organization on the form provided therefor.

2. Such proposals shall be submitted to the Director-General of the World Health Organization to the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated for this purpose, for consideration in accordance with the "General principles for guidance in devising International Nonproprietary Names", appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical substance shall be accepted, unless there are compelling reasons to the contrary.

3. Subsequent to the examination provided for in article 2, the Director-General of the World Health Organization shall give notice that a proposed international nonproprietary name is being considered.

A. Such notice shall be given by publication in the *Chronicle of the World Health Organization*<sup>1</sup> and by letter to Member States and to national pharmacopoeia commissions or other bodies designated by Member States.

(i) Notice may also be sent to specific persons known to be concerned with a name under consideration

B. Such notice shall :

(i) set forth the name under consideration ;

(ii) identify the person who submitted a proposal for naming the substance, if so requested by such person ;

(iii) identify the substance for which a name is being considered ;

(iv) set forth the time within which comments and objections will be received and the person and place to whom they should be directed ;

(v) state the authority under which the World Health Organization is acting and refer to these rules of procedure.

C. In forwarding the notice, the Director-General of the World Health Organization shall request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the proposed name during the period it is under consideration by the World Health Organization.

4. Comments on the proposed name may be forwarded by any person to the World Health Organization within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization*.

5. A formal objection to a proposed name may be filed by any interested person within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization*.

A. Such objection shall :

(i) identify the person objecting ;

(ii) state his interest in the name ;

(iii) set forth the reasons for his objection to the name proposed.

6. Where there is a formal objection under article 5, the World Health Organization may either reconsider the proposed name or use its good offices to attempt to obtain withdrawal of the objection. Without prejudice to the consideration by the World Health Organization of a substitute name or names, a name shall not be selected by the World Health Organization as a recommended international nonproprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.

7. Where no objection has been filed under article 5, or all objections previously filed have been withdrawn, the Director-General of the World Health Organization shall give notice in accordance with subsection A of article 3 that the name has been selected by the World Health Organization as a recommended international nonproprietary name.

8. In forwarding a recommended international nonproprietary name to Member States under article 7, the Director-General of the World Health Organization shall :

A. request that it be recognized as the nonproprietary name for the substance ; and

B. request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the name, including prohibiting registration of the name as a trade-mark or trade-name.

\* Text adopted by the Executive Board of WHO in resolution EB15.R7 (*Off. Rec. Wld Hlth Org.*, 1955, 60, 3) and amended by the Board in resolution EB43.R9 (*Off. Rec. Wld Hlth Org.*, 1969, 173, 10).

<sup>1</sup> The title of this publication was changed to *WHO Chronicle* in January 1959.

### GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES \*

1. Names should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names already in common use.

2. The name for a substance belonging to a group of pharmacologically related substances should, where appropriate, show this relationship. Names that are likely to convey to a patient an anatom-

\* Text revised by the Expert Committee on Nonproprietary Names for Pharmaceutical Substances (unpublished reports WHO/Pharm/67.443, WHO/Pharm/68.447, and WHO/Pharm/70.458).

ical, physiological, pathological or therapeutic suggestion should be avoided.

The above primary principles are to be implemented by utilization of the following secondary principles.

3. In devising the name of the first substance in a new pharmacological group (the parent substance), consideration should be given to the possibility of devising suitable names for related substances belonging to the new group.

4. In devising a name from the systematic chemical name of a substance, syllables such as "methylhydro", "methoxy", and "chlor" should preferably be abbreviated, for example, to "medro", "meto", and "clo"; the derived name should not be chemically misleading.

5. In devising names for acids, one-word names are preferred; their salts should be named without modifying the acid name, e.g., "oxacillin" and "oxacillin sodium", "ibufenac" and "ibufenac sodium". The salts of acids

having two-word names such as "nicotinic acid" should be named in the usual style, e.g., "sodium nicotinate".

6. Names for substances which are used as salts should in general apply to the active base (or the active acid). Names for different salts or esters of the same active substance should differ only in respect of the name of the inactive acid (or the inactive base). Exceptions may have to be made for those cases in which pharmacological activity may reside in both parts of the salt or ester.

For quaternary ammonium substances, the cation and anion should be named appropriately as separate components of a quaternary substance and not in the amine-salt style.

7. The use of an isolated letter or number should be avoided; hyphenated construction is also undesirable.

8. To facilitate translation and pronunciation "f" should preferably be used instead of "ph", "t" instead of "th", "e" instead of "ae" or "oe", and "i" instead of "y".

9. Provided that the names suggested are in accordance with these principles, names proposed by the person discovering or first developing and marketing a pharmaceutical preparation, or names already officially in use in any country, should receive preferential consideration.

10. Group relationship in names (see item 2) should preferably be shown by using common syllables in the following list. Where a syllable or a group of syllables is shown without any hyphens it may be used anywhere in the name. The syllable, or group of syllables, should, if possible, be used only for such substances.

Subsidiary group relationships should be shown by devising names which show similarities to and analogous with a previously named substance, the parent substance.

At the end of the list are general chemical syllables. Should they come into conflict with other suggested syllables, the suffix conveying the best information should be used.

Latin	English	French
-actidum	-actide	-actide
-andr-	-andr-	-andr-
or -stan-	or -stan-	or -stan-
or -ster-	or -ster-	or -ster-
-arolum	-arol	-arol
-bamatum	-bamate	-bamate
barb	barb	barb
bol	bol	bol
-cainum	-caine	-caine
cef-	cef-	céf-
-cillinum	-cillin	-cilline
cort	cort	cort
-crinum	-crine	-crine
-curium	-curium	-curium
-cyclinum	-cycline	-cycline
-estr-	-estr-	-estr-
-forminum	-formin	-formine
gest	gest	gest
gli-	gli-	gli-
io-	io-	io-
-moxinum	-moxin	-moxine
-mycinum	-mycin	-mycine
nifur-	nifur-	nifur-
-onidum	-onide	-onide
-orexum	-orex	-orex
-praminum	-pramine	-pramine
prost	prost	prost
-serpinum	-serpine	-serpine
sulfa-	sulfa-	sulfa-
-terolum	-terol	-térol
-tizidum	-tizide	-tizide
-toinum	-toin	-toine
-verinum	-verine	-vérine
-inum	-ine	-ine
-onum	-one	-one
-ium	-ium	-ium

synthetic polypeptides with a corticotrophin-like action  
steroids, androgenic

anticoagulants of the coumarin type  
tranquillizers of the propanediol and pentanediol series  
barbituric acids, hypnotic activity  
anabolic steroids  
local anaesthetics  
antibiotics with cephalosporanic acid nucleus  
penicillins: derivatives of 6-amino-penicillanic acid  
steroids, glucocorticoids and mineralocorticoids, other than prednisolone derivatives  
acridine derivatives  
curare-like drugs  
antibiotics, tetracycline derivatives  
estrogenic drugs  
guanidine oral antidiabetics  
steroids, progestative  
sulfonamide oral antidiabetics  
iodine-containing contrast media  
monoamine oxidase inhibitors  
antimicrobial antibiotics, produced by *Streptomyces* strains  
5-nitrofurans derivatives  
steroids for topical use: acetal derivatives  
anorexigenic agents  
dibenzazepine, compounds of the imipramine type  
prostaglandins  
derivatives of *Rauwolfia* alkaloids  
sulfonamides, used as antimicrobials  
bronchodilators: phenethylamine derivatives  
diuretics which are thiazide derivatives  
antiepileptics which are hydantoin derivatives  
spasmolytics with a papaverine-like action  
alkaloids and organic bases  
ketones  
quaternary ammonium compounds