

# 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 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.

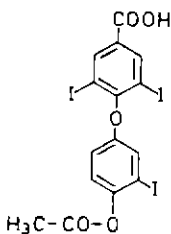
## Proposed International Nonproprietary Names (Prop. INN): List 30<sup>2</sup>

*Proposed International  
Nonproprietary Name* (Latin, English)

*Chemical Name or Description, Molecular and Graphic Formulae*

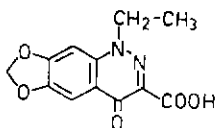
acetiromatum  
acetiromate

4-(4-hydroxy-3-iodophenoxy)-3,5-diiodobenzoic acid acetate  
 $C_{15}H_9I_3O_5$



acidum azolinicum  
azolinic acid

1-ethyl-1,4-dihydro-4-oxo[1,3]dioxolo[4,5-g]cinnoline-3-carboxylic acid  
 $C_{12}H_{10}N_2O_5$



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

<sup>2</sup> Other lists of proposed international nonproprietary names can be found in *Chron. Wld 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,

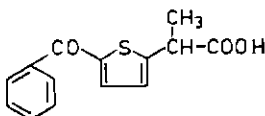
183, 418; 1970, 24, 119, 413, 1971, 25, 123, 415; 1972, 26, 121, 414, 1973, 27, 120.

Lists of recommended international nonproprietary names were published in *Chron. Wld Hlth Org.*, 1953, 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.

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: £2.40, \$6.00, or Sw. fr. 24.—).

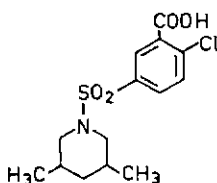
acidum tiaprofenicum  
tiaprofenic acid

5-benzoyl- $\alpha$ -methyl-2-thiopheneacetic acid  
 $C_{14}H_{12}O_3S$



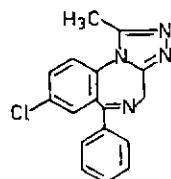
acidum tibricum  
tibric acid

2-chloro-5-[(3,5-dimethylpiperidino)sulfonyl]benzoic acid  
 $C_{14}H_{18}ClNO_4S$



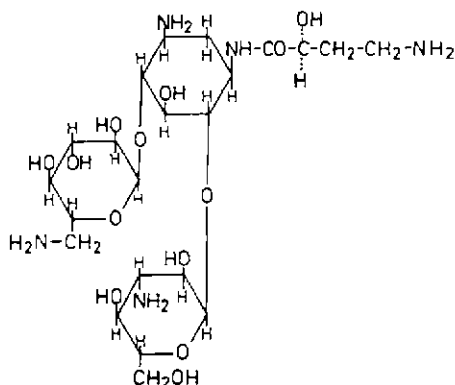
alprazolamum  
alprazolam

8-chloro-1-methyl-6-phenyl-4*H*-s-triazolo[4,3-*a*][1,4]benzodiazepine  
 $C_{17}H_{13}ClN_4$



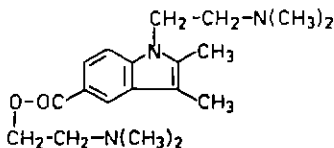
amikacinum  
amikacin

*O*-3-amino-3-deoxy- $\alpha$ -D-glucopyranosyl(1 $\rightarrow$ 4)-*O*-[6-amino-6-deoxy- $\alpha$ -D-glucopyranosyl(1 $\rightarrow$ 6)]-*N*<sup>3</sup>-(4-amino-L-2-hydroxybutyryl)-2-deoxy-L-streptamine  
 $C_{22}H_{43}N_5O_{13}$



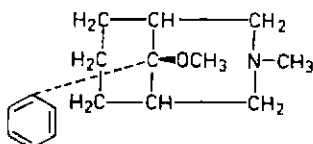
amindocatum  
amindocate

2-(dimethylamino)ethyl 1-[2-(dimethylamino)ethyl]-2,3-dimethylindole-5-carboxylate  
 $C_{19}H_{29}N_3O_2$



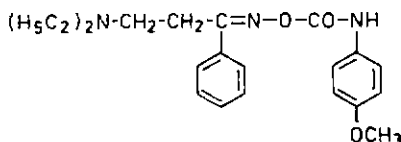
anazocinum  
anazocine

9-*syn*-methoxy-3-methyl-9-phenyl-3-azabicyclo[3.3.1]nonane  
 $C_{16}H_{23}NO$



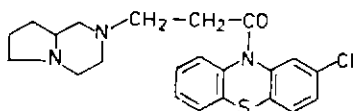
anidoximum  
anidoxime

3-(diethylamino)propiophenone *O*-[(*p*-methoxyphenyl)carbamoyl]oxime  
 $C_{21}H_{27}N_3O_3$



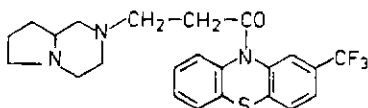
azaclorzinum  
azaclorzine

2-chloro-10-[3-(hexahydropyrrolo[1,2-*a*]pyrazin-2(1*H*)-yl)propionyl]-phenothiazine  
 $C_{22}H_{24}ClN_3OS$



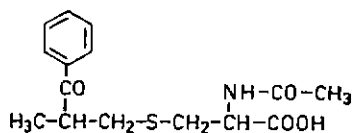
azaftozinum  
azaftozine

10-[3-(hexahydropyrrolo[1,2-*a*]pyrazin-2(1*H*)-yl)propionyl]-2-(trifluoromethyl)phenothiazine  
 $C_{23}H_{24}F_3N_3OS$



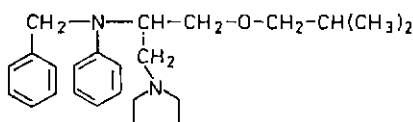
bencisteinum  
bencisteine

*N*-acetyl-3-[(2-benzoylpropyl)thio]alanine  
 $C_{15}H_{19}NO_4S$



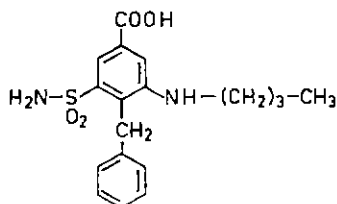
bepiridilum  
bepiridil

1-[2-(*N*-benzylanilino)-3-isobutoxypropyl]pyrrolidine  
 $C_{24}H_{34}N_2O$



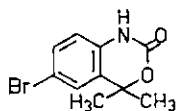
besunidum  
besunide

3-(butylamino)- $\alpha$ -phenyl-5-sulfamoyl-*p*-toluic acid  
 $C_{18}H_{22}N_2O_4S$



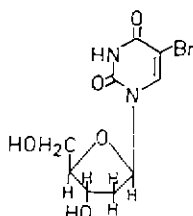
brofoxinum  
brofoxine

6-bromo-1,4-dihydro-4,4-dimethyl-2*H*-3,1-benzoxazin-2-one  
 $C_{10}H_{10}BrNO_2$



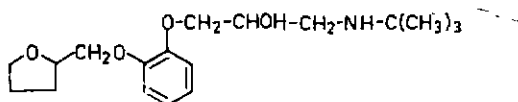
broxuridinum  
broxuridine

5-bromo-2'-deoxyuridine  
 $C_9H_{11}BrN_2O_5$



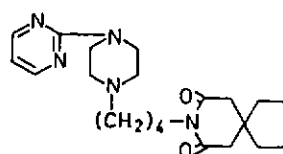
buetololum  
buetolol

1-(*tert*-butylamino)-3-[*o*-[(tetrahydrofurfuryl)oxy]phenoxy]-2-propanol  
C<sub>18</sub>H<sub>29</sub>NO<sub>4</sub>



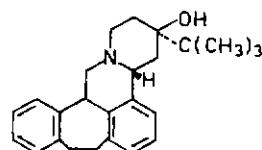
buspironum  
buspirone

8-[4-[4-(2-pyrimidinyl)-1-piperazinyl]butyl]-8-azaspiro[4.5]decane-7,9-dione  
C<sub>21</sub>H<sub>31</sub>N<sub>6</sub>O<sub>2</sub>



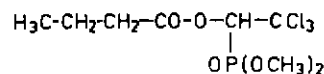
butaclamolum  
butaclamol

3-*tert*-butyl-2,3,4,4a,8,9,13ba,14-octahydro-1*H*-benzo[6,7]cyclohepta-[1,2,3-*de*]pyrido[2,1-*a*]isoquinolin-3-ol  
C<sub>25</sub>H<sub>31</sub>NO



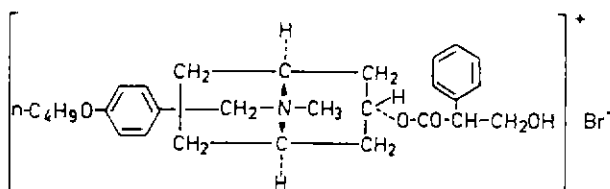
butonatum  
butonate

butyric acid, ester with dimethyl(2,2,2-trichloro-1-hydroxyethyl)phosphonate  
C<sub>8</sub>H<sub>14</sub>Cl<sub>3</sub>O<sub>5</sub>P



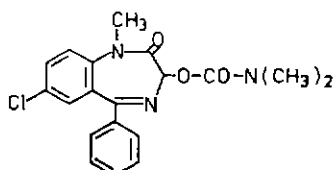
butropii bromidum  
butropium bromide

8-(*p*-butoxybenzyl)-3-*α*-hydroxy-1-*α*H,5-*α*H-tropanium bromide (-)-tropate  
C<sub>28</sub>H<sub>38</sub>BrNO<sub>4</sub>



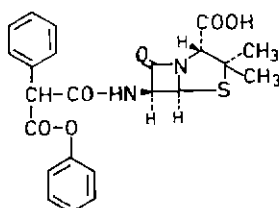
camazepamum  
camazepam

7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2H-1,4-benzodiazepin-2-one dimethylcarbamate (ester)  
 $C_{21}H_{18}ClN_3O_3$



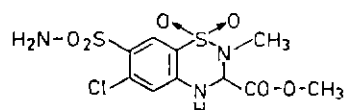
carfecillinum  
carfecillin

*N*-(2-carboxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl)-2-phenylmalonic acid 1-phenyl ester  
 $C_{23}H_{22}N_2O_6S$



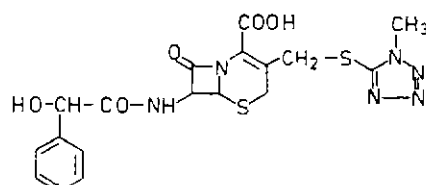
carmetizidum  
carmetizide

methyl 6-chloro-3,4-dihydro-2-methyl-7-sulfamoyl-2H-1,2,4-benzothiadiazine-3-carboxylate 1,1-dioxide  
 $C_{16}H_{12}ClN_3O_6S_2$



cefamandolum  
cefamandole

7-D-mandelamido-3-[[[(1-methyl-1H-tetrazol-5-yl)thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid  
 $C_{18}H_{18}N_6O_5S_2$

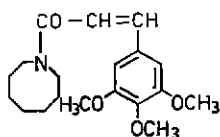


Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

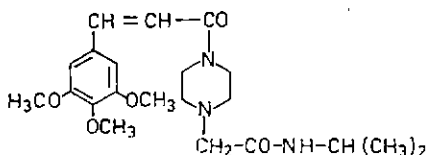
cinocetramidum  
cinocetamide

octahydro-1-(3,4,5-trimethoxycinnamoyl)azocine  
 $C_{19}H_{27}NO_4$



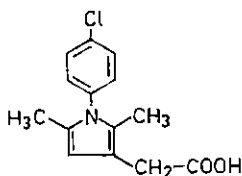
cinpropazidum  
propazide

*N*-isopropyl-4-(3,4,5-trimethoxycinnamoyl)-1-piperazineacetamide  
 $C_{21}H_{31}N_3O_5$



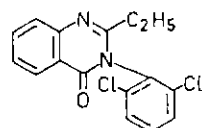
cloniracum  
clonirac

1-(*p*-chlorophenyl)-2,5-dimethylpyrrole-3-acetic acid  
 $C_{14}H_{14}ClNO_2$



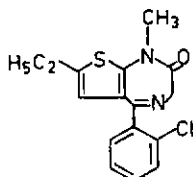
cloroqualonum  
cloroqualone

3-(2,6-dichlorophenyl)-2-ethyl-4(3*H*)-quinazolinone  
 $C_{16}H_{12}Cl_2N_2O$



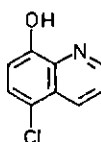
clotiazepamum  
clotiazepam

5-(*o*-chlorophenyl)-7-ethyl-1,3-dihydro-1-methyl-2*H*-thieno[2,3-*e*]-  
1,4-diazepin-2-one  
 $C_{16}H_{15}ClN_2OS$



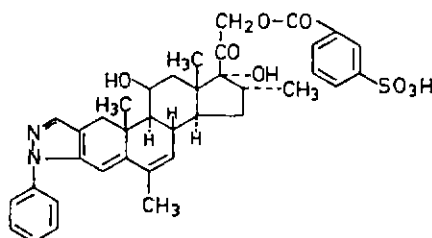
cloxiquinum  
cloxiquine

5-chloro-8-quinolinol  
 $C_9H_6ClNO$



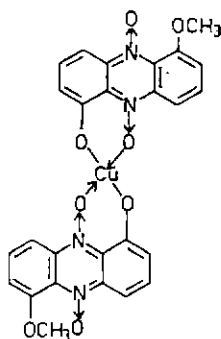
cortisuzolum  
cortisuzol

11 $\beta$ ,17,21-trihydroxy-6,16 $\alpha$ -dimethyl-2'-phenyl-2'*H*-pregna-  
2,4,6-trieno[3,2-*c*]pyrazol-20-one 21-(*m*-sulfobenzoate)  
 $C_{37}H_{40}N_2O_8S$



cuprimyxinum  
cuprimyxin

bis(6-methoxy-1-phenazinol 5,10-dioxidato-*O*<sup>1</sup>,*O*<sup>10</sup>)copper  
 $C_{26}H_{18}CuN_4O_8$



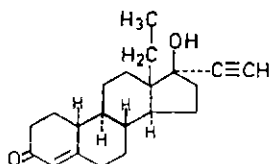


*Proposed International  
Nonproprietary Name (Latin, English)*

*Chemical Name or Description, Molecular and Graphic Formulae*

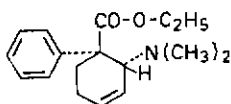
dexnorgestrelum  
dexnorgestrel

(+)-13-ethyl-17-hydroxy-18,19-dinor-17 $\alpha$ -pregn-4-en-20-yn-3-one  
C<sub>21</sub>H<sub>28</sub>O<sub>2</sub>



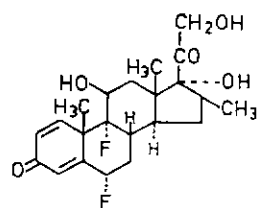
tilidinum  
tilidine

(+)-ethyl *trans*-2-(dimethylamino)-1-phenyl-3-cyclohexene-1-carboxylate  
C<sub>17</sub>H<sub>23</sub>NO<sub>2</sub>



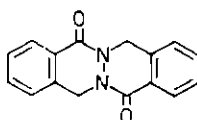
diflorasonum  
diflorasone

6 $\alpha$ ,9-difluoro-11 $\beta$ ,17,21-trihydroxy-16 $\beta$ -methylpregna-1,4-diene-3,20-dione  
C<sub>22</sub>H<sub>28</sub>F<sub>2</sub>O<sub>5</sub>



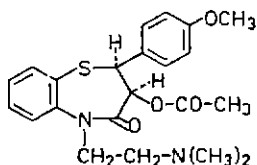
diftalonum  
diftalone

phthalazino[2,3-*b*]phthalazine-5,12(7*H*,14*H*)dione  
C<sub>16</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub>



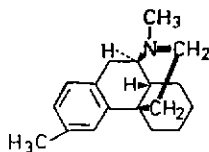
diltiazemum  
diltiazem

(+)-5-[2-(dimethylamino)ethyl]-*cis*-2,3-dihydro-3-hydroxy-2-(*p*-methoxyphenyl)-1,5-benzothiazepin-4(5*H*)-one acetate (ester)  
 $C_{22}H_{26}N_2O_4S$



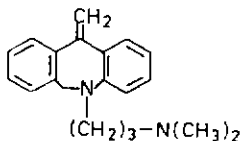
dimemorfanum  
dimemorfan

3,17-dimethylmorphinan  
 $C_{16}H_{25}N$



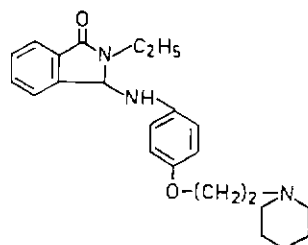
enprazepinum  
enprazepine

5-[3-(dimethylamino)propyl]-5,6-dihydro-11-methylene-11*H*-dibenz[*b,e*]azepine  
 $C_{20}H_{24}N_2$



etomidolium  
etomidoline

2-ethyl-3-( $\beta$ -piperidino-*p*-phenetidino)phthalimidine  
 $C_{23}H_{29}N_3O_2$

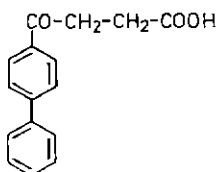


*Proposed International  
Nonproprietary Name* (Latin, English)

*Chemical Name or Description, Molecular and Graphic Formulae*

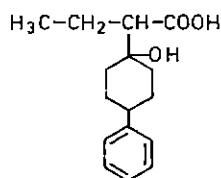
fenbufenum  
fenbufen

3-(4-biphenylcarbonyl)propionic acid  
 $C_{16}H_{14}O_3$



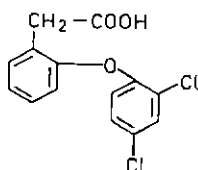
α-cibutirolum  
α-cibutirol

α-ethyl-1-hydroxy-4-phenylcyclohexaneacetic acid  
 $C_{16}H_{22}O_3$



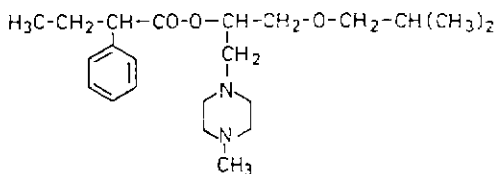
fenclofenacum  
fenclofenac

[o-(2,4-dichlorophenoxy)phenyl]acetic acid  
 $C_{14}H_{10}Cl_2O_3$



fenetradilum  
fenetradil

1-(isobutoxymethyl)-2-(4-methyl-1-piperazinyl)ethyl 2-phenylbutyrate  
 $C_{22}H_{36}N_2O_3$



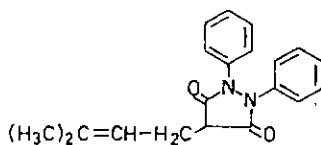
fenquizonum  
fenquizone

7-chloro-1,2,3,4-tetrahydro-4-oxo-2-phenyl-6-quinazolinesulfonamide  
 $C_{14}H_{12}ClN_3O_3S$



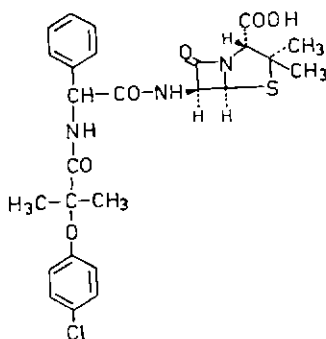
feprazonum  
feprazone

4-(3-methyl-2-butenyl)-1,2-diphenyl-3,5-pyrazolidinedione  
 $C_{20}H_{20}N_2O_2$



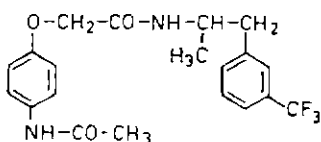
fibracillinum  
fibracillin

D-6-[2-[2-(p-chlorophenoxy)-2-methylpropionamido]-2-phenylacetamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid  
 $C_{26}H_{28}ClN_3O_6S$



flucetorexum  
flucetorex

$\alpha$ -[[ $\alpha$ -methyl-m-(trifluoromethyl)phenethyl]carbamoyl]-p-acetaniside  
 $C_{20}H_{21}F_3N_2O_3$

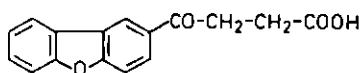


*Proposed International  
Nonproprietary Name* (Latin, English)

*Chemical Name or Description, Molecular and Graphic Formulae*

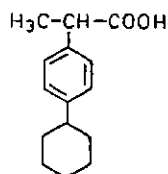
furobufenum  
furobufen

$\gamma$ -oxo-2-dibenzofuranbutyric acid  
 $C_{16}H_{12}O_4$



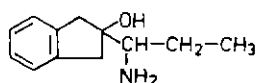
hexaprofenum  
hexaprofen

*p*-cyclohexylhydratropic acid  
 $C_{15}H_{20}O_2$



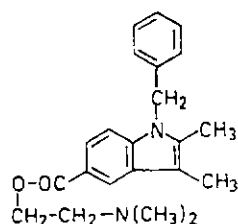
indanorexum  
indanorex

2-(1-aminopropyl)-2-indanol  
 $C_{12}H_{17}NO$



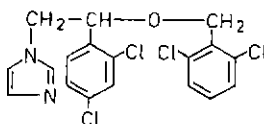
indocatum  
indocate

2-(dimethylamino)ethyl 1-benzyl-2,3-dimethylindole-5-carboxylate  
 $C_{22}H_{26}N_2O_2$



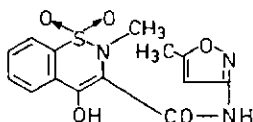
isoconazolum  
isoconazole

1-[2,4-dichloro- $\beta$ -[(2,6-dichlorobenzyl)oxy]phenethyl]imidazole  
 $C_{18}H_{14}Cl_4N_2O$



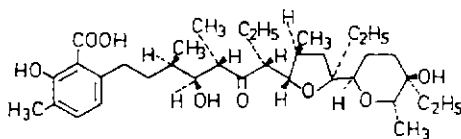
isoxicamum  
isoxicam

4-hydroxy-2-methyl-*N*-(5-methyl-3-isoxazolyl)-2*H*-1,2-benzothiazine-3-carboxamide 1,1-dioxide  
 $C_{14}H_{13}N_3O_5S$



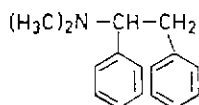
lasalocidum  
lasalocid

6-[7(*R*)-[5(*S*)-ethyl-5-(5(*R*)-ethyltetrahydro-5-hydroxy-6(*S*)-methyl-2*H*-pyran-2(*R*)-yl)tetrahydro-3(*S*)-methyl-2(*S*)-furyl]-4(*S*)-hydroxy-3(*R*),5(*S*)-dimethyl-6-oxononyl]-2,3-cresotic acid  
 $C_{34}H_{54}O_8$



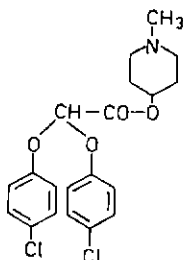
lefetaminum  
lefetamine

(-)-*N,N*-dimethyl-1,2-diphenylethylamine  
 $C_{16}H_{19}N$



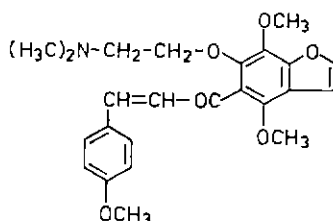
lifibratum  
lifibrate

1-methyl-4-piperidyl glyoxylate 2-[bis(*p*-chlorophenyl) acetal]  
 $C_{20}H_{21}Cl_2NO_4$



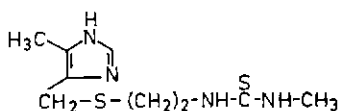
mecinaronum  
mecinarone

1-[6-[2-(dimethylamino)ethoxy]-4,7-dimethoxy-5-benzofuranyl]-  
3-(*p*-methoxyphenyl)-2-propen-1-one  
 $C_{24}H_{27}NO_6$



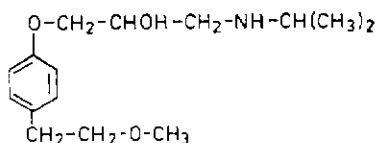
metiamidum  
metiamide

1-methyl-3-[2-[[5-methylimidazol-4-yl)methyl]thio]ethyl]-2-thiourea  
 $C_9H_{16}N_4S_2$



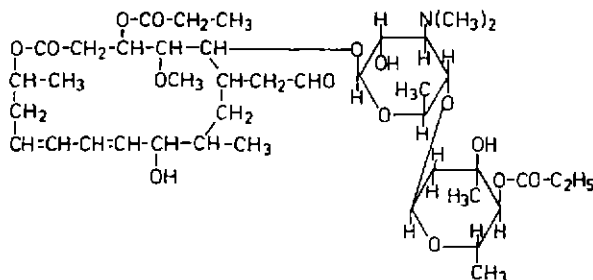
metoprololum  
metoprolol

(±)-1-(isopropylamino)-3-[*p*-(2-methoxyethyl)phenoxy]-2-propanol  
 $C_{15}H_{25}NO_3$



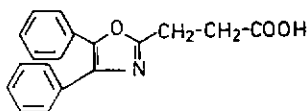
midecamycinum  
midecamycin

7-(formylmethyl)-4,10-dihydroxy-5-methoxy-9,16-dimethyl-2-oxooxacyclohexadeca-11,13-dien-6-yl 3,6-dideoxy-4-O-(2,6-dideoxy-3-C-methyl- $\alpha$ -L-ribo-hexopyranosyl)-3-(dimethylamino)- $\beta$ -D-glucopyranoside 4',4''-dipropionate (ester)  
 $C_{41}H_{67}NO_{15}$



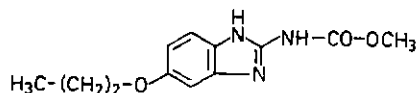
oxaprozinum  
oxaprozin

4,5-diphenyl-2-oxazolepropionic acid  
 $C_{18}H_{15}NO_3$



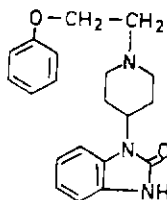
oxibendazolum  
oxibendazole

methyl 5-propoxy-2-benzimidazolecarbamate  
 $C_{12}H_{15}N_3O_3$



oxiperomidum  
oxiperamide

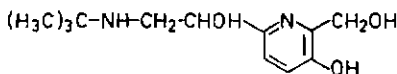
1-[1-(2-phenoxyethyl)-4-piperidyl]-2-benzimidazolinone  
 $C_{20}H_{23}N_3O_2$





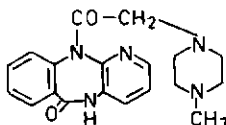
pirbuterolum  
pirbuterol

$\alpha^6$ -[({*tert*-butylamino)methyl]-3-hydroxy-2,6-pyridinedimethanol  
 $C_{12}H_{20}N_2O_3$



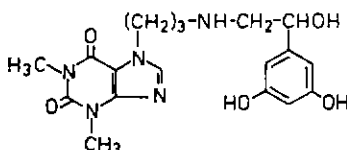
pirenzepinum  
pirenzepine

5,11-dihydro-11-[(4-methyl-1-piperazinyl)acetyl]-6*H*-pyrido[2,3-*b*]-[1,4]benzodiazepin-6-one  
 $C_{19}H_{21}N_5O_2$



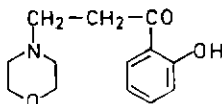
reproterolum  
reproterol

7-[3-[( $\beta$ ,3,5-trihydroxyphenethyl)amino]propyl]theophylline  
 $C_{18}H_{23}N_5O_5$



romifenonum  
nifenone

2'-hydroxy-3-morpholinopropiophenone  
 $C_{13}H_{17}NO_3$



saralasinum  
saralasin

*N*-[1-[*N*-[*N*-[*N*-[*N*-[*N*<sup>2</sup>-(*N*-methylglycyl)-L-arginyl]-L-valyl]-L-tyrosyl]-L-valyl]-L-histidyl]-L-prolyl]-L-alanine  
 $C_{42}H_{65}N_{13}O_{10}$

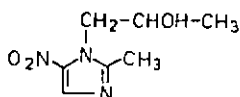
H-Sar-L-Arg-L-Val-L-Tyr-L-Val-L-His-L-Pro-L-Ala-OH

Proposed International  
Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

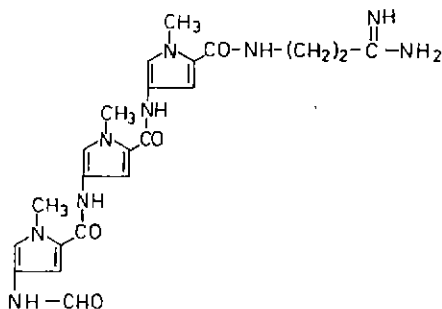
secdiazolum  
secdiazole

$\alpha$ ,2-dimethyl-5-nitroimidazole-1-ethanol  
 $C_7H_{11}N_3O_3$



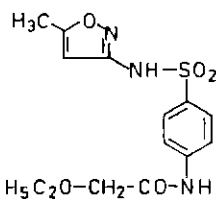
stallimycinum  
stallimycin

distamycin A ; *N''*-(2-amidinoethyl)-4-formamido-1,1',1''-trimethyl-*N*,4' : *N'*,4''-ter(pyrrole-2-carboxamide)  
 $C_{22}H_{27}N_9O_4$



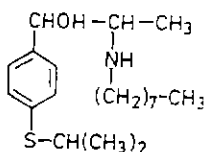
sulfacolum  
sulfacole

2-ethoxy-4'-[(5-methyl-3-isoxazolyl)sulfamoyl]acetanilide  
 $C_{14}H_{17}N_3O_5S$



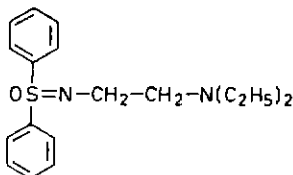
suloctidilum  
suloctidil

*p*-(isopropylthio)- $\alpha$ -[1-(octylamino)ethyl]benzyl alcohol  
 $C_{20}H_{35}NOS$



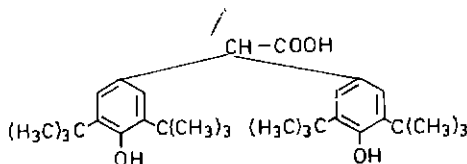
suloxifenum  
suloxifen

*N*-[2-(diethylamino)ethyl]-*S,S*-diphenylsulfoximide  
 $C_{18}H_{24}N_2OS$



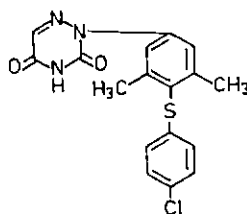
ibuprofenum  
ibuprofen

bis(3,5-di-*tert*-butyl-4-hydroxyphenyl)acetic acid  
 $C_{30}H_{44}O_4$



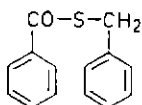
tiazurilum  
tiazuril

2-[4-[(*p*-chlorophenyl)thio]-3,5-xylyl]-*as*-triazine-3,5(2*H*,4*H*)-dione  
 $C_{17}H_{14}ClN_3O_2S$



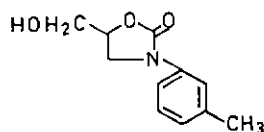
tibenzatum  
tibenzate

*S*-benzyl thiobenzoate  
 $C_{14}H_{12}OS$



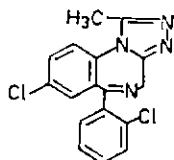
toloxatonum  
toloxatone

5-(hydroxymethyl)-3-*m*-tolyl-2-oxazolidinone  
 $C_{11}H_{13}NO_3$



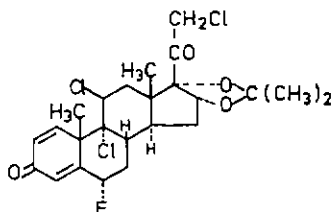
triazolamum  
triazolam

8-chloro-6-(*o*-chlorophenyl)-1-methyl-4*H*-s-triazolo[4,3-*a*]-  
[1,4]benzodiazepine  
 $C_{17}H_{12}Cl_2N_4$



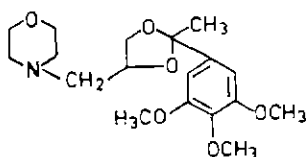
triclomidum  
tricloneide

9,11 $\beta$ ,21-trichloro-6 $\alpha$ -fluoro-16 $\alpha$ ,17-dihydroxypregna-1,4-diene-3,20-dione  
cyclic acetal with acetone  
 $C_{24}H_{28}Cl_3FO_4$



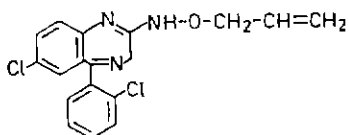
trioxolanum  
trioxolane

4-[[2-methyl-2-(3,4,5-trimethoxyphenyl)-1,3-dioxolan-4-yl]methyl]-  
morpholine  
 $C_{18}H_{27}NO_6$



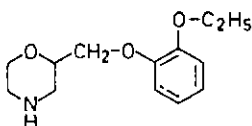
ulidazepamum  
ulidazepam

2-[(allyloxy)amino]-7-chloro-5-(*o*-chlorophenyl)-3*H*-1,4-benzodiazepine  
C<sub>18</sub>H<sub>15</sub>Cl<sub>2</sub>N<sub>3</sub>O



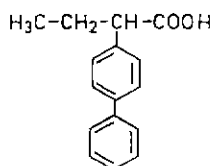
loxazinium  
loxazine

2-[(*o*-ethoxyphenoxy)methyl]morpholine  
C<sub>13</sub>H<sub>19</sub>NO<sub>3</sub>



xenbuficinum  
xenbuficin

$\alpha$ -ethyl-4-biphenylacetic acid  
C<sub>16</sub>H<sub>16</sub>O<sub>2</sub>



**AMENDMENTS  
TO PREVIOUS LISTS**

Vol. 25, No. 9

**Proposed International Nonproprietary Names (Prop. INN): Liste 26**

p. 419 cefradinum  
cefradine

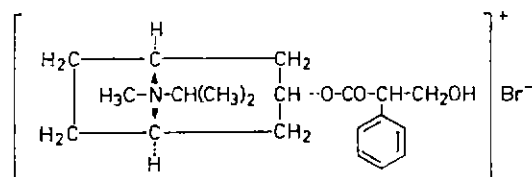
*replace chemical name by the following:*  
7-[D-2-amino-2-(1,4-cyclohexadien-1-yl)acetamido]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

Vol. 26, No. 9

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

p. 424 ipratropii bromidum  
ipratropium bromide

*replace graphic formula by the following:*



p. 430 *delete*  
tamidolinum  
tamidoline

*insert*  
omidolinum  
omidoline

Vol. 27, No. 3

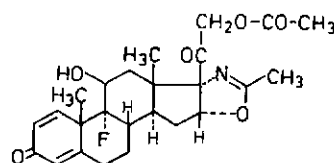
**Proposed International Nonproprietary Names (Prop. INN): List 29**

p. 127 *delete*  
doxazolinum  
doxazoline

*insert*  
domazolinum  
domazoline

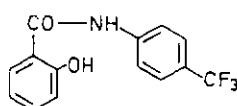
p. 130 fluazacortum  
fluazacort

*replace graphic formula by the following:*



p. 137 salfluverinum  
salfluverine

*replace graphic formula by the following:*



**International Nonproprietary Names for Pharmaceutical Substances: Cumulative List No. 3, 1971**

p. 78 *delete*  
magnesii aluminii glycinas (6)  
magnesium aluminium glycinate

aluminium-magnesium derivative of glycine  $C_2H_5Al_4MgNO_3$

## 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 by 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. Wild Hlth Org.*, 1955, 60, 3) and amended by the Board in resolution EB43.R9 (*Off. Rec. Wild 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 are analogous with a previously named substance, the parent substance.

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

<i>Latin</i>	<i>English</i>	<i>French</i>
-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	-toïne
-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-nitrofur 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