International Non-Proprietary Names for Pharmaceutical Preparations

In accordance with article 3 of the Procedure for the Selection of Recommended International Non-Proprietary Names for Pharmaceutical Preparations, notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Non-Proprietary 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 non-proprietary names does not imply any recommendation for the use of the substance in medicine or pharmacy.

PROPOSED INTERNATIONAL NON-PROPRIETARY NAMES (Prop. I.N.N.): LIST 20 *

<table>
<thead>
<tr>
<th>Proposed International Non-Proprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulas</th>
</tr>
</thead>
<tbody>
<tr>
<td>acidum canrenonicum</td>
<td>17-hydroxy-3-oxo-17α-pregna-4,6,8-triene-21-carboxylic acid</td>
</tr>
<tr>
<td>canrenoic acid</td>
<td>C_{21}H_{28}O_{4}</td>
</tr>
</tbody>
</table>

| acidum eicristicum | β-methylcyclohexanacrylic acid |
| eicristic acid | C_{12}H_{10}O_{2} |

*See Annex, p. 427.


<table>
<thead>
<tr>
<th>Proposed International Non-Proprietary Name</th>
<th>Chemical Name or Description, Molecular and Graphic Formulas</th>
</tr>
</thead>
<tbody>
<tr>
<td>acidum clofibricum</td>
<td>2-(p)-chlorophenoxy)-2-methylpropionic acid C_8H_9ClO_2</td>
</tr>
<tr>
<td>clofibric acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="" alt="Clofibric Acid" /></td>
</tr>
<tr>
<td>acidum clorindanicum</td>
<td>7-chloro-4-hydroxy-5-indancarboxylic acid C_9H_7ClO_3</td>
</tr>
<tr>
<td>clorindanic acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="" alt="Clorindanic Acid" /></td>
</tr>
<tr>
<td>acidum lobutoicum</td>
<td>4-[2,4,6-triido-3-(morpholinocarbonyl)phenoxy]butyric acid C_11H_14I_3NO_5</td>
</tr>
<tr>
<td>lobutoic acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="" alt="Lobutoic Acid" /></td>
</tr>
<tr>
<td>acidum metiazinicum</td>
<td>10-methylphenothiazine-2-acetic acid C_9H_7N_3O_5S</td>
</tr>
<tr>
<td>metiazinic acid</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="" alt="Metiazinic Acid" /></td>
</tr>
</tbody>
</table>
**Proposed International Non-Proprietary Name**

(Latin, English)

benmoxinum  
benmoxin

**Chemical Name or Description, Molecular and Graphic Formulae**

benzolic acid 2-(α-methylbenzyl)hydrazide  
C<sub>16</sub>H<sub>14</sub>N<sub>4</sub>O

![Chemical structure of benzolic acid 2-(α-methylbenzyl)hydrazide]

boldenonum  
boldenone

17β-hydroxyandrost-1,4-dien-3-one  
C<sub>21</sub>H<sub>26</sub>O<sub>2</sub>

![Chemical structure of 17β-hydroxyandrost-1,4-dien-3-one]

bromhexinum  
bromhexine

3,5-dibromo-N<sub>α</sub>-cyclohexyl-N<sub>α</sub>-methyltoluene-α-2-diamine  
C<sub>26</sub>H<sub>24</sub>Br<sub>2</sub>N<sub>2</sub>

![Chemical structure of 3,5-dibromo-N<sub>α</sub>-cyclohexyl-N<sub>α</sub>-methyltoluene-α-2-diamine]

bufexamacum  
bufexamac

2-(p-butoxyphenyl)-acetohydroxamic acid  
C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>

![Chemical structure of 2-(p-butoxyphenyl)-acetohydroxamic acid]
canrenonatium kallium
canrenonate potassium

potassium 3-oxo-17a-pregna-4,6-diene-21-carboxylate
\( \text{C}_{27}\text{H}_{36}\text{KO}_{4} \)

---

canrenonum
canrenone

17-hydroxy-3-oxo-17a-pregna-4,6-diene-21-carboxylic acid \( \gamma \)-lactone
\( \text{C}_{27}\text{H}_{36}\text{O}_{7} \)

---

carbazochronum
carbazochrome

3-hydroxy-1-methyl-5,6-indolinedione semicarbazone
\( \text{C}_{22}\text{H}_{23}\text{N}_{3}\text{O}_{5} \)

---

carbonicilinium
carbonicillin

\( N\)-(2-carbonyl-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-y1)-2-phenylmalonamic acid
\( \text{C}_{32}\text{H}_{37}\text{N}_{2}\text{O}_{5} \)
Proposed International Non-Proprietary Name (Latin, English)  

**cingestolum**

**cingestol**

19-nor-17a-pregn-5-en-20-yn-17-ol  
C_{19}H_{24}O

**Clothoquinum**

**Clothoquine**

2-[(4-(7-chloro-4-quinolyl)amino)pentyl]amino)ethanol  
C_{21}H_{22}ClN

**clomagetonum**

**clomagestone**

6-chloro-17-hydroxy-16a-methylpregna-4,6-diene-3,20-dione  
C_{22}H_{25}ClO_3

**clopidolum**

**clopidol**

3,5-dichloro-2,6-dimethyl-4-pyridinol  
C_{11}H_{13}Cl_2NO
cloprothiazolium
cloprothiazole

5-(3-chloropropyl)-4-methylthiazole
C₇H₅ClN₂S

clotioxonum
clopioxone

2-phenyl-4-[(trichloromethyl)thio]-1,3,4-oxadiazolin-5-one
C₇H₄Cl₃N₂O₅S

creatinolofosfatum
creatinolofosate

1-(β-hydroxyethyl)-1-methylguanidine dihydrogen phosphate (ester)
C₉H₁₄N₂O₅P

danazol

17α-pregna-2,4-dien-20-yne[2,3-d]isoxazol-17-ol
C₃₀H₃₂N₂O₂
<table>
<thead>
<tr>
<th>Daunorubicinum</th>
<th>Daunorubicin</th>
<th>A glucosidic antibiotic obtained from cultures of <em>Streptomyces peucetius</em> or <em>Streptomyces coeruleorubidus</em>, or the same substance obtained by any other means. C_{49}H_{49}NO_{16}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decoquinat</td>
<td>Decoquinate</td>
<td>Ethyl 6-(decyloxy)-7-ethoxy-4-hydroxy-3-quinoline-carboxylate C_{44}H_{51}NO_{13}</td>
</tr>
<tr>
<td>Deprodonum</td>
<td>Deprodone</td>
<td>11β,17-dihydroxypregna-1,4-diene-3,20-dione C_{41}H_{54}O_{8}</td>
</tr>
<tr>
<td>Desoximetaso</td>
<td>Desoximetasone</td>
<td>9-fluoro-11β, 21-dihydroxy-16α-methylpregna-1,4-diene-3,20-dione C_{44}H_{49}FNO_{12}</td>
</tr>
<tr>
<td>Proposed International Non-Proprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecules and Graphic Formulas</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>doxivacainum doxivacaine</td>
<td>(+)-1-methyl-2',8'-pipécoloxylidide C_{18}H_{17}N_{2}O</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image1.png" alt="Chemical Structure 1" /></td>
<td></td>
</tr>
<tr>
<td>etolorexum etolorex</td>
<td>2-[(p-chloro-n,n-dimethylphenethyl)amino]ethanol C_{10}H_{13}ClN_{2}O</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image2.png" alt="Chemical Structure 2" /></td>
<td></td>
</tr>
<tr>
<td>filipinum filipin</td>
<td>3,5,7,9,11,13,15,26,27-nonahydroxy-2-(1-hydroxyhexyl)-16-methyl-18,20,22,24-octacosapentaenoic acid 1,27-lactone C_{98}H_{150}O_{32}</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image3.png" alt="Chemical Structure 3" /></td>
<td></td>
</tr>
<tr>
<td>fipexidum fipexide</td>
<td>1-[(p-chloro(phenoxy)acetyl)]-4-piperonylpiperazine C_{23}H_{21}ClN_{2}O_{2}</td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image4.png" alt="Chemical Structure 4" /></td>
<td></td>
</tr>
</tbody>
</table>
**Flumalidum**
2-(allyloxy)-N-[2-(diethylamino)ethyl]-a,a,a-trifluoro-p-toluamide
C_{n}H_{n}F_{n}N_{n}O_{n}

**Flumazine**
7-chloro-1-[2-(diethylamino)ethyl]-5-(α-fluorophenyl)-1,3-dihydro-2H-
1,4-benzodiazepin-2-one
C_{m}H_{m}ClFN_{n}O_{n}

**Flumazepam**
4-[2-[6-chloro-2-pyridyl]thio]ethyl]morpholine
C_{n}H_{n}ClN_{n}Os

**Flumazenil**
2-geranylhydroquinone
C_{o}H_{o}O_{o}

---
Proposed International Non-Proprietary Name
(Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

gloxazonum
gloxzone

3-ethoxy-2-oxobutyraldehyde bis(thiosemicarbazone)
C_{14}H_{14}N_{4}O_{5}S_{2}

\[ \begin{align*}
&\text{CH}_3 \\
&\text{H}_2\text{C} - \text{CH}_2 - \text{O} - \text{CH} - \text{C} \equiv \text{N} - \text{NH} - \text{C} - \text{NH}_2 \\
&\text{HC} \equiv \text{N} - \text{NH} - \text{C} - \text{NH}_2
\end{align*} \]

guanadrelum
guanadrel

(1,4-dioxaspiro[4.5]dec-2-ylmethyl)guanidine
C_{16}H_{20}N_{2}O_{2}

\[ \begin{align*}
&\text{O} \\
&\text{CH}_2 - \text{NH} - \text{C} - \text{NH}_2
\end{align*} \]

halofenatum
halofenate

(p-chlorophenyl)\{[(a,a,a-trifluoro-m-tolyloxy]acetic acid ester with N-(2-hydroxyethyl)acetamide
C_{16}H_{12}ClF_3NO_7

\[ \begin{align*}
&\text{O} - \text{CH} - \text{CO} - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{CO} - \text{CH}_3 \\
&\text{Cl}
\end{align*} \]

homopipramel
homopipramol

4-[3-(5H-dibenz[b,f]azepin-5-yl)propyloxy]hexahydro-1H-1,4-diazepine-1-
ethanol
C_{26}H_{31}N_{2}O

\[ \begin{align*}
&\text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{N} - \text{CH}_2 - \text{CH}_2 \text{OH}
\end{align*} \]

kalafunginum
kalafungin

an antibiotic obtained from cultures of Streptomyces tanashiensis
strain 1a, or the same substance obtained by any other means

lidimycinum
lidimycin

an antibiotic obtained from cultures of Streptomyces lydicus, or the same substance obtained by any other means
Proposed International
Non-Proprietary Name
(Latin, English)

Chemical Name or Description,
Molecular and Graphic Formula.

mecloralurea
mecloralurea

1-methyl-3-(2,2,2-trichloro-1-hydroxyethyl)urea
C₇H₇Cl₂N₂O₃

Cl₃C—CHOH—NH—CO—NH—CH₃

medazepamum
medazepam

7-chloro-2,3-dihydro-1-methyl-5-phenyl-1H,1,4-benzodiazepine
C₂₂H₂₂ClN₂

metampicillinm
metampicillin

3,3-dimethyl-6-[2-(methylamino)-2-phenylacetamido]-7-oxo-4-
thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid
C₂₀H₂₀N₂O₃S

metoserpatum
metoserpate

methyl O-methyl-18-epireserpate
C₁₉H₂₄N₂O₆
mianserin

\[
\text{Chemical Name or Description, Molecular and Graphical Formulas}
\]

1,2,3,4,10,14b-hexahydro-2-methylbenzo[\text{c,f}]pyrazino[1,2-a]azepine  
\(\text{C}_{15}\text{H}_{14}\text{N}_2\)

![Mianserin structure](image)

mitiprin

5,6-dimethoxy-3-[2-[4-(o-methoxyphenyl)-1-piperazinyl]ethyl]-2- 

methylindole  
\(\text{C}_{24}\text{H}_{20}\text{N}_3\text{O}_2\)

![Mitiprin structure](image)

mitobronitol

1,6-dibromo-1,6-dideoxy-D-mannitol  
\(\text{C}_{12}\text{H}_{12}\text{Br}_2\)

![Mitobronitol structure](image)

mitoguazon

1,1'-(methylenebis(1,2-dinitro)iminomethylene)diguanidine  
\(\text{C}_{6}\text{H}_{14}\text{N}_6\)

![Mitoguazon structure](image)
moquilzonum
moquilzone

2,3-dihydro-1-(morpholinoacetyl)-3-phenyl-4(1H)-quinazolinone
C₂₀H₁₅N₄O₅

niclofolanum
niclofolan

4,4’-dichloro-6,6’-dinitro-o,o-biphenol
C₁₃H₈Cl₂N₂O₄

nifurfolinum
nifurfoline

3-morpholinomethyl)-1-[[5-nitrofurfurylidene)amine]-hydantoin
C₁₅H₁₀N₄O₅

nifurpiponum
nifurpipone

4-methyl-1-piperazineacetie acid (5-nitrofurfurylidene)hydrazide
C₁₅H₁₀N₄O₅
nifursolum
nifursol

3,5-dinitrosalicylic acid (5-nitrofurfurylidene)hydrazide
C$_1$$_1$H$_{1}$N$_3$O$_5$

\[ \text{CH} = \text{N} - \text{NH} - \text{CO} - \text{NO}_2 \]

nimazolum
nimazine

3-(p-chlorophenyl)-4-imino-2-oxo-1-imidazolidineacetonitrile
C$_{1}$H$_{7}$ClN$_3$O

\[ \text{N} - \text{Br}^{-} \]

norfluranum
norflurane

1,1,2-tetrafluoroethane
C$_3$H$_2$F$_4$

\[ \text{H} - \text{F} \]
\[ \text{F} - \text{C} - \text{C} - \text{F} \]
\[ \text{H} - \text{F} \]

nortetrazepamum
nortetrazepam

7-chloro-5-(1-cyclohexen-1-yl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one
C$_{1}$H$_{11}$ClN$_2$O

\[ \text{Cl} - \text{N} - \text{H} \]
noxiptilinum
noxiptiline

10,11-dihydro-5H-dibenzo[a,d]cyclohepten-5-one O-[2-(dimethylamino)ethyl]oxime
\[\text{C}_{15}\text{H}_{16}\text{N}_{2}\text{O}\]

8-ornithinovesopressin
\[\text{C}_{57}\text{H}_{41}\text{N}_{10}\text{O}_{7}\]

oxifentorexum
oxifentorex

N-benzyl-N,\alpha-dimethylphenylethylamine N-oxide
\[\text{C}_{17}\text{H}_{22}\text{NO}\]
<table>
<thead>
<tr>
<th>Proposed International Non-Proprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formula</th>
</tr>
</thead>
</table>
| oxprenolol                                                | 1-(o-allyloxyphenoxy)-3-(isopropylamino)-2-propanol  
   C_{11}H_{16}N_{2}O_{5}                                      |
|                                                          |  
   $$\begin{array}{c}
   \text{O} \quad \text{O} \\
   \text{CH}_{2} \quad \text{CH}_{2} \quad \text{NH} \quad \text{CH}(\text{CH}_{3})_{2} \\
   \text{O} \quad \text{CH}_{2} \quad \text{C} = \text{CH}_{2} \\
   \end{array}$$ |
| phoxim                                                   | phenylglyoxynitrile oxime O,O-diethyl phosphorothioate
   C_{16}H_{11}N_{2}O_{5}PS                                   |
|                                                          |  
   $$\begin{array}{c}
   \text{C} = \text{N} \quad \text{O} \\
   \text{S} \quad \text{O} \quad \text{C}_{2}\text{H}_{5} \\
   \text{O} \quad \text{C}_{2}\text{H}_{5} \\
   \end{array}$$ |
| pimeclonum                                               | 2-(piperidinomethyl)cyclohexanone
   C_{12}H_{14}NO                                                 |
|                                                          |  
   $$\begin{array}{c}
   \text{N} \quad \text{CH}_{2} \quad \text{C} \\
   \text{O} \quad \text{N} \\
   \end{array}$$ |
| piperatecolum                                             | 3-(3,4-dihydroxyphenyl)-4-(2-methoxyphenyl)-1-piperazineethanol
   C_{16}H_{14}N_{2}O_{4}                                         |
|                                                          |  
   $$\begin{array}{c}
   \text{HO} \\
   \text{HO} \quad \text{CHOH} \quad \text{CH}_{2} \quad \text{N} \quad \text{N} \\
   \text{H}_{2}\text{CO} \\
   \end{array}$$ |
| prifinium bromidum                                        | 3-(diphenylmethylenyl)-1,1-diethyl-2-methylpyrrolidinium bromide
   C_{19}H_{24}BrN                                               |
|                                                          |  
   $$\begin{array}{c}
   \text{Br}^{-} \\
   \end{array}$$ |
<table>
<thead>
<tr>
<th>Non-Proprietary Name (Latin, English)</th>
<th>Proposed International Name</th>
<th>Chemical Name or Description</th>
<th>Molecular and Graphic Formulae</th>
</tr>
</thead>
<tbody>
<tr>
<td>profadolum</td>
<td>profadol</td>
<td>3-(1-methyl-3-propyl-3-pyrroldinyl)phenol</td>
<td>C_{14}H_{16}NO</td>
</tr>
<tr>
<td>quazodine</td>
<td>quazodine</td>
<td>4-ethyl-6,7-dimethoxyquinazoline</td>
<td>C_{12}H_{14}N_{2}O_{3}</td>
</tr>
<tr>
<td>racefenicolum</td>
<td>racefenicol</td>
<td>(D)-3-threo-2,2-dichloro-N-[3-hydroxy-a-(hydroxymethyl)-p-(methyl-sulfonyl)phenethyl]acetamide</td>
<td>C_{22}H_{16}Cl_{2}N_{3}O_{6}S</td>
</tr>
<tr>
<td>ranimycinum</td>
<td>ranimycin</td>
<td>an antibiotic obtained from cultures of <em>Streptomyces lincolnensis</em>, or the same substance obtained by any other means</td>
<td>C_{10}H_{16}O_{6}</td>
</tr>
<tr>
<td>riboprinum</td>
<td>riboprime</td>
<td>N-(3-methyl-2-butyl)adenosine</td>
<td>C_{18}H_{18}N_{3}O_{6}</td>
</tr>
<tr>
<td>Proposed International Non-Proprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecular and Graphic Formulae</td>
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<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>salbutamolum salbutamol</td>
<td>$\alpha$-[[tert-buty lamino]methyl]-4-hydroxy-m-xylene-$\alpha$, $\alpha'$-diol $\text{C}<em>9\text{H}</em>{17}\text{NO}_3$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>saletamidum saletamide</td>
<td>$N$-[2-(diethylamino)ethyl]salicylamide $\text{C}<em>{14}\text{H}</em>{18}\text{N}_2\text{O}_3$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>soterenolum soterenol</td>
<td>2'-hydroxy-5'-[1-hydroxy-2-(isopropylamino)ethyl]methanesulfonamide $\text{C}<em>{16}\text{H}</em>{18}\text{N}_2\text{O}_3\text{S}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>steffimycinum steffimycin</td>
<td>an antibiotic obtained from cultures of Streptomyces steffisburgensis var. steffisburgensis sp. n., or the same substance obtained by any other means</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sumetizidum sumetizide</td>
<td>6-chloro-3,4-dihydro-3-succinimidomethyl-2H-1,2,4-benzothiadiazine-7-sulfonamide 1,1'-dioxide $\text{C}<em>{19}\text{H}</em>{13}\text{Cl}\text{N}_2\text{O}_3\text{S}_2$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed International Non-Proprietary Name</td>
<td>Chemical Name or Description, Molecular and Graphic Formulae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tetridaminum</td>
<td>4,5,6,7-tetrahydro-2-methyl-3-(methylamino)-2H-indazole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tetridamine</td>
<td>C$<em>{16}$H$</em>{16}$N$_{3}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tetridaminum Structure" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tigestolum</td>
<td>19-nor-17α-pregn-5(10)-en-20-yn-17-ol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tigestol</td>
<td>C$<em>{27}$H$</em>{44}$O</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td><img src="image" alt="Tigestol Structure" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tribenosidum</td>
<td>ethyl 3,5,6-tri-O-benzyl-D-glucofuranoside</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tribenoside</td>
<td>C$<em>{34}$H$</em>{49}$O$_5$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tribenosidum Structure" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tropininum</td>
<td>3α-[5(1H-benzo[4,5]cyclohepta[1,2-b]pyridyl]-5-oxytropane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>tropirine</td>
<td>C$<em>{37}$H$</em>{45}$N$_{3}$O</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tropininum Structure" /></td>
<td></td>
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</tr>
</tbody>
</table>
CORRIGENDA

Vol. 20, No. 6

PROPOSED INTERNATIONAL NON-PROPRIETARY NAMES (Prop. I.N.N.): LIST 16

p. 223: delete
sulfomefoxinum
sulfomefoxine

insert
sulfadoxinum
sulfadoxine

Vol. 22, No. 3

PROPOSED INTERNATIONAL NON-PROPRIETARY NAMES (Prop. I.N.N.): LIST 19

p. 117: delete
fenclexonii bromidum
fenclexonium bromide

insert
1-(3,3-diphenylpropyl)-1-methylpiperidinium bromide
C_{31}H_{46}BrN

\[
\begin{array}{c}
\text{\includegraphics{structure1.png}} \\
\text{Br}^{-}
\end{array}
\]

fenclexonii metilsulfas
fenclexonium metilsulfate

insert
1-(1-cyclohexenyl)-3-phenylpropyl)-1-methylpiperidinium methyl-
sulfate
C_{34}H_{46}NO_{5}S

\[
\begin{array}{c}
\text{\includegraphics{structure2.png}} \\
\text{CH_3-O-SO_2-O}^{-}
\end{array}
\]

p. 122: delete
penoctonii bromidum
penoctonium bromide

diethyl(2-hydroxyethyl)octyl ammonium bromide diphenylacetate
C_{38}H_{54}BrNO_{2}

insert
penoctonii bromidum
penoctonium bromide

diethyl(2-hydroxyethyl)octyl ammonium bromide dicyclopentylacetate
C_{38}H_{54}BrNO_{2}
Annex

PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NON-PROPRIETARY NAMES FOR PHARMACEUTICAL PREPARATIONS

The following procedure shall be followed by the World Health Organization in the selection of recommended international non-proprietary names for pharmaceutical preparations, in accordance with the World Health Assembly resolution WHA31.11:

1. Proposals for recommended international non-proprietary 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 Non-proprietary Names" appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical preparation 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 non-proprietary name is being considered.

A. Such notice shall be given by publication in the Chronicle of the World Health Organization¹ 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 non-proprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.


¹ The title of this publication was changed to WHO Chronicle in January 1959.
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 non-proprietary name.

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

A. request that it be recognized as the non-proprietary 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.

GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NON-PROPRIETARY NAMES FOR PHARMACEUTICAL PREPARATIONS *

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 of 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 anatomical, 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. Syllables such as "methylhydro", "methoxy" and "chlor" should preferably be abbreviated (to "medro", "meto", "clo", etc.).

5. In the naming of substances which are acids, existing names generally used in chemistry which include the word "acidum" ("acid") should be used, if the name is adequate for practical use in therapy and pharmacy. In other circumstances, the substance should be named by a single word and not by a name which includes the word "acid". Where the word "acid" is not used in the name, as is customary in the penicillin series, a salt should preferably be named without modification of the parent acid name, e.g., "oxacillin" and "oxacillin sodium".

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 "l" 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.

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* Text revised by the Expert Committee on Non-Proprietory Names for Pharmaceutical Preparations (unpublished reports WHO/Pharm/67.443 and WHO/Pharm/68.447)
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 general chemical syllables. Should they come into conflict with other suggested syllables, the suffix conveying the best information should be used.

<table>
<thead>
<tr>
<th>Latin</th>
<th>English</th>
<th>French</th>
</tr>
</thead>
<tbody>
<tr>
<td>-andr-</td>
<td>-andr-</td>
<td>steroids, androgenic</td>
</tr>
<tr>
<td>or-stan-</td>
<td>or-stan-</td>
<td>polysulfonic anticoagulants</td>
</tr>
<tr>
<td>or-ster-</td>
<td>or-ster-</td>
<td>anticoagulants</td>
</tr>
<tr>
<td>-apol-</td>
<td>-apol-</td>
<td>tranquillizers of the propanediol and pentanediol series</td>
</tr>
<tr>
<td>-arol-</td>
<td>-arol-</td>
<td>barbituric acids, hypnotic activity</td>
</tr>
<tr>
<td>-bamat-</td>
<td>-bamat-</td>
<td>anabolic steroids</td>
</tr>
<tr>
<td>-barb-</td>
<td>-barb-</td>
<td>local anaesthetics</td>
</tr>
<tr>
<td>-bol-</td>
<td>-bol-</td>
<td>antibiotics with cefalosporanic acid nucleus</td>
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<tr>
<td>-cal-</td>
<td>-cal-</td>
<td>penicillins: derivatives of carboxy-5-amino-penicillanic acid</td>
</tr>
<tr>
<td>-cil-</td>
<td>-cil-</td>
<td>steroids, glucocorticoids and mineralocorticoids, other than prednisolone derivatives</td>
</tr>
<tr>
<td>-cort-</td>
<td>-cort-</td>
<td>acetone derivatives</td>
</tr>
<tr>
<td>-cru-</td>
<td>-cru-</td>
<td>cure-all-like drugs</td>
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<tr>
<td>-cycli-</td>
<td>-cycline</td>
<td>antibiotics, tetracycline derivatives</td>
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<td>-dione-</td>
<td>-dione</td>
<td>antiepileptics derived from oxazolidinedione</td>
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<tr>
<td>-estr-</td>
<td>-estr-</td>
<td>estrogenic drugs</td>
</tr>
<tr>
<td>-gast-</td>
<td>-gast-</td>
<td>steroids, progestative</td>
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<td>-gill-</td>
<td>sulphonamide oral antidiabetics</td>
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<td>-io-</td>
<td>iodine-containing contrast media</td>
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<td>-mer-</td>
<td>mercury-containing drugs, antimicrobial or diuretic</td>
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<td>-mito-</td>
<td>nucleotoxic, antineoplastic agents</td>
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<td>-moxine</td>
<td>monoamine oxidase inhibitors</td>
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<td>-mycin-</td>
<td>-mycine</td>
<td>antimicrobial antibiotics, produced by Streptomyces strains</td>
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<td>-nifur-</td>
<td>5-nitrofurane derivatives</td>
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<td>-orex-</td>
<td>anorexigenic agents</td>
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<tr>
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<td>-pramine</td>
<td>dibenzazepine, compounds of the imipramine type</td>
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<td>-quine</td>
<td>quinoline derivatives</td>
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<td>-serpine</td>
<td>derivatives of Ruwolflia alkaloids</td>
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<td>-stigmin-</td>
<td>-stigmine</td>
<td>anticholinesterases</td>
</tr>
<tr>
<td>-sulf-</td>
<td>-sulfa-</td>
<td>sulfonamides, used as antimicrobials</td>
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<tr>
<td>-thiizid-</td>
<td>-thizide</td>
<td>diuretics which are thiazide derivatives</td>
</tr>
<tr>
<td>-toin-</td>
<td>-toine</td>
<td>antiepileptics which are hydantoin derivatives</td>
</tr>
<tr>
<td>-verine-</td>
<td>-verine</td>
<td>spasmodytics with a papaverine-like action</td>
</tr>
<tr>
<td>-one-</td>
<td>-one-</td>
<td>alkaloids and organic bases</td>
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<td>-ione-</td>
<td>ketones</td>
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<tr>
<td>-ium-</td>
<td>-ium-</td>
<td>quaternary amines</td>
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