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, notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Nonproprietary Names.

Comments on, or formal objections to, the proposed names may be forwarded by any person to the Pharmaceuticals unit of the World Health Organization within four months of the date of their publication in 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 33

<table>
<thead>
<tr>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
</tr>
</thead>
<tbody>
<tr>
<td>acaprazine</td>
<td>N-[3-[4-(2,5-dichlorophenyl)-1-piperazinyl]propyl]acetamide</td>
</tr>
<tr>
<td>acaprazine</td>
<td>C&lt;sub&gt;18&lt;/sub&gt;H&lt;sub&gt;21&lt;/sub&gt;N&lt;sub&gt;2&lt;/sub&gt;O</td>
</tr>
</tbody>
</table>
| | \[
| \begin{array}{c}
| \text{Cl} \\
| \text{Cl} \\
| \text{N} \\
| \text{C} \\
| \text{H} \\
| \text{N} \\
| \text{H} \\
| | \end{array}
| \]
| | \[
| \text{(CH}_2\text{_2)}\text{_2-NH}_2 \\
| \text{C} \\
| \text{H}_3 \text{C} \\
| | \]
| acesulfamum | 6-methyl-1,2,3-oxathiazin-4(3H)-one 2,2-dioxide |
| acesulfamum | C<sub>7</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub> |
| | \[
| \text{H}_3 \text{C} \\
| \text{O} \\
| \text{O} \\
| \text{N} \\
| | \]

1 See Annex, p. 28.


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: 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.
acidum etodolicum
etodolic acid

\[
\text{C}_7\text{H}_5\text{N}_2\text{O}_3
\]

acidum ioglicicum
ioglicic acid

\[
\text{C}_{13}\text{H}_{21}\text{N}_3\text{O}_5
\]

acidum isericicum
iseric acid

\[
\text{C}_{13}\text{H}_{18}\text{N}_3\text{O}_7
\]

acidum ioumemicum
ioumecic acid

\[
\text{C}_{13}\text{H}_{18}\text{N}_3\text{O}_3
\]
proposed international nonproprietary name (latin, english)

acidum ioxotrizicum  
ioxotrizic acid

3-acetamido-5-glycolamido-2,4,6-triiodobenzoic acid
\[ C_{11}H_{13}I_3N_2O_6 \]

acidum xanoxicum  
xanoxic acid

7-isopropoxy-9-oxoxanthene-2-carboxylic acid
\[ C_{17}H_{14}O_5 \]

acipimoxum  
acipimox

5-methylpyrazinecarboxylic acid 4-oxide
\[ C_{9}H_{8}N_2O_3 \]

amcinonidum  
amcinonide

9-fluoro-11,16a,17,21-tetrahydroxypregnna-1,4-diene-3,20-dione cyclic 16,17-acetal with cyclopentanone, 21-acetate
\[ C_{20}H_{21}F_9O_8 \]
amilomerum
amiloamer

starch reaction product with epichlorohydrin

atencololum
atencol

2-\([\rho\)-2-hydroxy-3-(isopropylamino)propoxy]phenyl\]acetamide
C_{14}H_{22}N_{2}O_{3}

\[
\begin{array}{c}
\text{atencol} \\
\text{C}_{14}H_{22}N_{2}O_{3}
\end{array}
\]

bentazepamum
bentazepam

1,3,6,7,8,9-hexahydro-5-phenyl-2H-[1]benzothieno[2,3-e]-1,4-diazepin-2-one
C_{17}H_{16}N_{2}OS

\[
\begin{array}{c}
\text{bentazepam} \\
\text{C}_{17}H_{16}N_{2}OS
\end{array}
\]

bifluranolum
bifluranol

erythro-4,4'-\((1\)-ethyl-2-methylethylene\)bis[2-fluorophenol]
C_{17}H_{16}F_{2}O_{2}

\[
\begin{array}{c}
\text{bifluranol} \\
\text{C}_{17}H_{16}F_{2}O_{2}
\end{array}
\]
<table>
<thead>
<tr>
<th>Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulee</th>
</tr>
</thead>
</table>
| bisfenazonum bisfenazole         | 3-[[2,3-dimethyl-5-oxo-1-phenyl-3-pyrazolin-4-yl]amino]methyl]-4-isoamyl-2-methyl-1-phenyl-3-pyrazolin-5-one  
$\text{C}_{24}\text{H}_{22}\text{N}_{4}\text{O}_{2}$ |
| bromperidolum bromperidol        | 4-[(4-\(\rho\)-bromophenyl)-4-hydroxypiperidino]-4'-fluorobutyrophenone  
$\text{C}_{21}\text{H}_{22}\text{BrFNO}_{2}$ |
| budralazinum budralazine         | 4-methyl-3-penten-2-one (1-phthalazinyl)hydrazone  
$\text{C}_{14}\text{H}_{15}\text{N}_{4}$ |
| bufomedilium bufomedilii         | 2',4',6'-trimethoxy-4-(1-pyrrolidinyl)butyrophenone  
$\text{C}_{17}\text{H}_{22}\text{NO}_{4}$ |
cartazolium
cartazolate  
ethyl 4-(butylamino)-1-ethyl-1H-pyrazolo[3,4-b]pyridine-5-carboxylate  
C_{14}H_{22}N_{3}O_{3}

\[
\begin{align*}
\text{H}_5\text{C}_2\text{O}\cdot\text{C} \\
\text{NH}\text{(CH}_2)_3\text{-CH}_3 \\
\end{align*}

\]

cefarolium  
cefadroxil  
(6R,7R)-7-[(R)-2-amino-2-[(p-hydroxyphenyl)acetamido]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid  
C_{16}H_{11}N_{3}O_{3}S

\[
\begin{align*}
\text{HO} \cdots \text{CNH} \\
\text{N}_{\text{H}_2} \\
\text{COOH} \\
\end{align*}

\]

cesaparolium  
cefaparole  
(6R,7R)-7-[(R)-2-amino-2-[(p-hydroxyphenyl)acetamido]-3-[[5-methyl-1,3,4-thiadiazol-2-yl]thiophenyl]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid  
C_{19}H_{13}N_{3}O_{3}S_{2}

\[
\begin{align*}
\text{HO} \cdots \text{CNH} \\
\text{N}_{\text{H}_2} \\
\text{COOH} \\
\end{align*}

\]

ciclasfrinum  
ciclasfrine  
m-1-oxa-4-azaspiro[4.6]undec-2-ylphenol  
C_{16}H_{21}NO_{2}

\[
\begin{align*}
\text{CH}_2\text{-O} \\
\text{CH}_2\text{-OH} \\
\end{align*}

\]
ciclonicatun

ciclonate

trans-3,3,5-trimethylcyclohexyl nicotinate
C_{13}H_{21}NO_{2}

\[ \text{Structure Image} \]

ciclooxolonom

ciclooxolone

3β-hydroxy-11-oxoolean-12-en-33-oic acid hydrogen cis-1,2-cyclohexanedi-carboxylate
C_{39}H_{53}O_{4}

\[ \text{Structure Image} \]

cimetidinum

cimetidine

1-cyano-2-methyl-3-[2-[[5-methylimidazol-4-yl]methyl]thio]ethyl]-guanidine
C_{21}H_{18}N_{4}S

\[ \text{Structure Image} \]

cinepazetum
cinepazet

ethy 4-(3,4,5-trimethoxy cinnamoyl)-1-piperazinacetate
C_{20}H_{22}N_{2}O_{6}

\[ \text{Structure Image} \]
cinaxolonum  cinaxolone

Cinnamyl 3β-hydroxy-11-oxoolean-12-en-30-oate acetate
C₄₁H₅₇O₅

climiquaminum  climiquamine

3-chloro-1-imidazol-1-yl-4-phenylisoquinoline
C₁₈H₁₂ClN₃

claprotoxadum  claprotozide

1-[[1-[4,4-bis(p-fluorophenyl)butyl]-4-piperidyl]-5-chloro-2-benzimidazolinone
C₂₆H₂₃ClF₂N₅O

claprostenonum  claprostenol

(±)-(Z)-7-[(1R*,2R*,3R*,5S*)]-2-[(E)-(3R*)]-4-(m-chlorophenoxy)-3-hydroxy-1-butyl]-3,5-dihydroxycyclopentyl]-5-heptenoic acid
C₂₂H₂₃ClO₆
collimycinum

reaction product of one molecule of colistin with three molecules of oxytetracycline in presence of formaldehyde

\[ N,N',N''-\text{tris}(4-(\text{dimethylamino})-1,4,4a,5,6,11,12a-\text{octahydro}-3,5,6,10,12,12a-\text{hexahydroxy}-6-\text{methyl}-1,11-\text{dioxo}-2-\text{naphthacenecarboxamido})\text{methyl}]\text{polymyxin E (nominal)} \]

C_{122}H_{122}O_{12} (nominal)

---

desmopressinum

1-(3-mercaptopropionic acid)-8-0-argininvasopressin

\[ C_{16}H_{32}N_{14}O_{15}S_2 \]

\[ S-\text{CH}_2-\text{CH}_2-\text{CO}-\text{t-Tyr+t-Phe+t-Gln+t-Ash+Cys-} \]

-\text{t-Pro-t-Arg+t-Gly-NH}_2

---

dexamolomum

(+)-2,3,4,4a,5,6,8,9,13b,14-\text{octahydro-3a-isopropyl-1H-benzo[6,7]cyclohepta-[1,2,3-de]pyrido[2,1-a]isoquinolin-3-ol}

C_{28}H_{33}NO
**Proposed International Nonproprietary Name (Latin, English)**

- **dextranomerum**
- **dextranomer**

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

- **dextran reaction product with epichlorohydrin**

![Chemical Structure](image1)

- **difluoracetum**
- **difluoral**

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

- **2',4'-difluoro-4-hydroxy-3'-biphenylcarboxylic acid**
- **C_{13}H_{8}F_{2}O_{3}**

![Chemical Structure](image2)

- **dimetanum**
- **dimetone**

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

- **2',4'-dimethoxy-3-(4-pyridyl)acrylophenone**
- **C_{16}H_{15}NO_{3}**

![Chemical Structure](image3)

10
diproleandomycin

oleandomycin 4',11'-dipropionate
C₄₁H₆₆NO₁₄

droclidinin bromidum
droclidinium bromide

3-hydroxy-1-methylquinuclidinium bromide 6-phenylcyclohexaneglycolate
C₂₂H₂₃BrNO₂

ε-hucrilatum
hucrilate

butyl 2-cyanoacrylate
C₅H₁₱NO₂

etazolatum
etazolate

ethyl 1-ethyl-4-(isopropylidenehydrazino)-1H-pyrazolo[3,4-b]pyridine-5-carboxylate
C₁₄H₁₆N₄S₂O₂
<table>
<thead>
<tr>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Nonproprietary Name (Latin, English)</th>
</tr>
</thead>
<tbody>
<tr>
<td>fenclorac</td>
<td>chloro(3-chloro-4-cyclohexylphenyl)acetic acid</td>
</tr>
<tr>
<td>fenclorac</td>
<td>C14H10Cl2O2</td>
</tr>
<tr>
<td>fenclorac</td>
<td><img src="" alt="fenclorac" /></td>
</tr>
<tr>
<td>fenperutram</td>
<td>2-piperidinoethyl α-benzyl-α-hydroxyhydrocinnamate acetate (ester)</td>
</tr>
<tr>
<td>fenperutram</td>
<td>C20H31NO6</td>
</tr>
<tr>
<td>fenperutram</td>
<td><img src="" alt="fenperutram" /></td>
</tr>
<tr>
<td>fludazonium chloride</td>
<td>1-[2,4-dichloro-β-[(2,4-dichlorobenzyl)oxy]phenethyl]-3-(p-fluoro-phenacyl)imidazolium chloride</td>
</tr>
<tr>
<td>fludazonium chloride</td>
<td>C20H16Cl2FN2O2</td>
</tr>
<tr>
<td>fludazonium chloride</td>
<td><img src="" alt="fludazonium chloride" /></td>
</tr>
<tr>
<td>fluprostenol</td>
<td>(±)-(Z)-7-[[1R*,2R*,3R*,5S*]-3,5-dihydroxy-2-[(E)-(3R*)-3-hydroxy-4-[[o.o.o-trifluoro-m-tolyl]oxy]-1-butenyl]cyclopentyl]-5-heptenoic acid</td>
</tr>
<tr>
<td>fluprostenol</td>
<td>C23H33F3O6</td>
</tr>
<tr>
<td>fluprostenol</td>
<td><img src="" alt="fluprostenol" /></td>
</tr>
<tr>
<td>Proprietary Name</td>
<td>Nonproprietary Name (Latin, English)</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>flutamidum</td>
<td>flutamide</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{H}_3\text{C}-\text{CH}_2\text{C}-\text{NH} \\
\text{CH}_3 \\
\text{NO}_2 \\
\text{CF}_3
\end{align*}
\]

<table>
<thead>
<tr>
<th>gallium-(^{68}\text{Ga}) citrate</th>
<th>gallium-(^{67}\text{Ga}) citrate (1:1)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>glyamidium</th>
<th>galmamide</th>
<th>( \text{endo-1-[(4-{2-(2-methoxynicotinamido)ethyl}piperidino)sulfonyl]-3-{5-norbornen-2-ylmethyl}urea} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \text{C}<em>{22}\text{H}</em>{32}\text{N}<em>{6}\text{S}</em>{2})</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{CH}_2\text{NH}-\text{C}-\text{NH}\text{SO}_2 \\
\text{N} \text{OCH}_3 \\
\text{C}-\text{NHCH}_2-\text{CH}_2
\end{align*}
\]

<table>
<thead>
<tr>
<th>cliflumidum</th>
<th>cliflumide</th>
<th>((-)-(\text{S})-\text{N}{\text{5-fluoro-2-methoxy-\alpha-methylbenzyl}}-2-{\text{p-{5-isobutyl-2-pyrimidinyl}sulfonyl}}\text{phenyl} \text{acetamide} )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \text{C}<em>{26}\text{H}</em>{30}\text{F}<em>{2}\text{N}</em>{4}\text{O}_{8} )</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{N}-\text{S} \text{N}_2 \text{O}_2 \\
\text{CH}_2\text{NH}-\text{C}-\text{NHCH}_2\text{CH}_3
\end{align*}
\]

<table>
<thead>
<tr>
<th>leucocianidol</th>
<th>leucocianidol</th>
<th>3,3',4,4',5,7-flavanhexol</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( \text{C}<em>{15}\text{H}</em>{14}\text{O}_{7} )</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
\text{OH} \\
\text{OH} \\
\text{OH} \\
\text{OH}
\end{align*}
\]
<table>
<thead>
<tr>
<th>Nonproprietary Name</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iofexidinum</td>
<td>2-[(1-(2,3-dichlorophenoxy)ethyl]-2-imidazoline</td>
</tr>
<tr>
<td>Iofexidine</td>
<td>C₁₁H₁₂Cl₂N₂O</td>
</tr>
<tr>
<td>Macrossalb (*⁹⁹mTc)</td>
<td>Technetium (*⁹⁹mTc) labelled macroaggregated human serum albumin</td>
</tr>
<tr>
<td>Meditoxaxinum</td>
<td>(dimethylamino)acetoldehyde diphenyl acetal</td>
</tr>
<tr>
<td>Meditoxamine</td>
<td>C₁₄H₁₅NO₂</td>
</tr>
<tr>
<td>Mefloquinum</td>
<td>DL-erythro-α-2-piperidyl-2,8-bis(trifluoromethyl)-4-quinolinemethanol</td>
</tr>
<tr>
<td>Mefloquine</td>
<td>C₁₇H₁₆F₂N₂O</td>
</tr>
<tr>
<td>Metogestum</td>
<td>17β-hydroxy-16,16-dimethyl-4-en-3-one</td>
</tr>
<tr>
<td>Metogest</td>
<td>C₂₀H₃₀O₂</td>
</tr>
<tr>
<td>Nonproprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecular and Graphic Formulae</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>metoxepinum metoxepin</td>
<td>1-(8-methoxydibenzo[9,10]oxepin-10-yl)-4-methylpiperazine C_{26}H_{22}N_{2}O_{2}</td>
</tr>
<tr>
<td>metrafazolinum metrafazoline</td>
<td>2-[(1,2,3,4-tetrahydro-7-methyl-1,4-ethanaphthalen-6-yl)methyl]-2-imidazoline C_{17}H_{22}N_{2}</td>
</tr>
<tr>
<td>maxoprofenum maxoprofen</td>
<td>p-(trans-2-methylcyclohexyl)hydratropic acid C_{16}H_{22}O_{2}</td>
</tr>
<tr>
<td>mexrenoatum kalicum mexrenoate potassium</td>
<td>7-methyl 21-potassium 17-hydroxy-3-oxo-17a-pregn-4-ene-7a,21-dicarboxylate dihydrate C_{24}H_{23}KO_{6}·2H_{2}O</td>
</tr>
</tbody>
</table>

15
<table>
<thead>
<tr>
<th>Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulee</th>
</tr>
</thead>
<tbody>
<tr>
<td>minaprinum minaprine</td>
<td>4-[[2-[(4-methyl-6-phenyl-3-pyridazinyl)amino]ethyl]morpholine C_{17}H_{22}N_4O</td>
</tr>
<tr>
<td>moxnidazolum moxnidazole</td>
<td>3-[[1-methyl-6-nitroimidazol-2-yl)methylens]amino]-5-(morpholinomethyl)-2-oxazolidinone C_{13}H_{18}N_4O_2</td>
</tr>
<tr>
<td>niometacinum niometacin</td>
<td>5-methoxy-2-methyl-1-nicotinoylindole-3-acetic acid C_{18}H_{16}N_2O_4</td>
</tr>
<tr>
<td>nitramisolum nitramisole</td>
<td>(±)-2,3,5,6-tetrahydro-6-(m-nitrophenyl)imidazo[2,1-b]thiazole C_{17}H_{11}N_3O_2S</td>
</tr>
</tbody>
</table>
nitromifenum
nitromifene

1-[(2-[α-(α-methoxyphenyl)-β-nitrostyryl]phenoxy)ethyl]pyrrolidine
C_{27}H_{28}N_{2}O_{4}

nitroscanum
nitroscanate

α-(α-nitrophenoxy)phenyl isothiocyanate
C_{13}H_{7}N_{2}O_{3}S

octriptylinum
octriptyline

1α,10β-dihydro-4-methylidibenz[a,e]cyclopropa[c]cycloheptene-4,4-dihydro-4-propylene
C_{21}H_{27}N

oxetacillinum
oxetacillin

(2S,5R,6R)-6-[(4R)-4-(α-hydroxyphenyl)-2,2-dimethyl-5-oxo-1-imidazolidinyl]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid
C_{19}H_{23}N_{2}O_{5}S
oxiramidum
oxiramide

$N\cdot\{4\cdot(2,6\cdot\text{dimethylpiperidino})\text{butyl}\}\cdot2\cdot\text{phenoxy}\cdot2\cdot\text{phenylacetamide}$

$C_{22}H_{24}N_2O_5$

\[
\begin{array}{c}
\text{CH} = \text{C} - \text{NH} - (\text{CH}_2)_3 - \text{CH}_2 \\
\text{H}_3\text{C} - \text{N} - \text{H}
\end{array}
\]

piretanidum
piretanide

4-phenoxy-3-(1-pyrrolidinyl)-5-sulfamoylbenzoic acid

$C_{17}H_{18}N_2O_5S$

\[
\begin{array}{c}
\text{COOH} \\
\text{H}_3\text{N} - \text{SO}_2
\end{array}
\]

pirfenidonum
pirfenidone

5-methyl-1-phenyl-2(1H)-pyridone

$C_{13}H_11NO$

\[
\begin{array}{c}
\text{H}_3\text{C} \\
\text{NH} - \text{O}
\end{array}
\]

pirozadilum
pirozadil

2,6-pyridinediydimethylen bis(3,4,5-trimethoxybenzoate)

$C_{22}H_{20}NO_4$

\[
\begin{array}{c}
\text{OC} - \text{O} - \text{CH}_2 - \text{N} - \text{CH}_2 - \text{O} - \text{CO} \\
\text{H}_3\text{CO} - \text{OCH}_3 \\
\text{H}_3\text{CO} - \text{OCH}_3
\end{array}
\]
pirolazamidum
pirolazamide

hexahydro-α,α-diphenylpyrrolo[1,2-α]pyrazine-2(1H)-butyramide
C_{23}H_{28}N_{2}O

praxadinum
praxadine

pyrazole-1-carboxamidine
C_{4}H_{6}N_{4}

proxibarbalum
proxibarbal

5-allyl-5-(2-hydroxypropyl)barbituric acid
C_{19}H_{24}N_{2}O_{4}

ripazepamum
ripazepam

1-ethyl-4,6-dihydro-3-methyl-8-phenylpyrrolo[4,3-α][1,4]diazepin-5(1H)-one
C_{19}H_{18}N_{4}O
ritopirronium bromide  
erythrole-3-hydroxy-1,1-dimethylpyrrolidinium bromide α-cyclopentylmandelate  
C₁₅H₂₂BrN₂O₅S

ritosulfanum  
ritosulfan  
1,4-dideoxy-1,4-bis[(2-hydroxyethyl)amino]erythritol 1,4-dimethanesulfonate (ester)  
C₁₁H₂₄N₂O₆S₂

rociverinum  
rociverine  
2-[(diethylamino)-1-methyl]trans-1-hydroxy[bicyclohexyl]-2-carboxylate  
C₁₉H₃₇NO₃

roxolonii metilsulfas  
roxolonium metilsulfate  
2-(hydroxymethyl)-1,1-dimethylpyrrolidinium methyl sulfate 3β-hydroxy-11-oxoolean-12-en-30-oate  
C₉₃H₇₅N₂O₉S
sorbinicatum
sorbitrate

0-glucitol hexanicotinate
C_{42}H_{32}NeO_{12}

---

striptentol
striptentol

4,4-dimethyl-1-[(3,4-methylenedioxy)phenyl]-1-penten-3-ol
C_{14}H_{19}O_{3}

---

streptozocinum
streptozcain

2-deoxy-2-(3-methyl-3-nitrosoureido)-d-glucopyranose
C_{39}H_{36}N_{5}O_{7}

---

sulindacum
sulindac

(Z)-5-fluoro-2-methyl-1-[p-(methylsulfanyl)benzylidene]indene-3-acetic acid
C_{20}H_{17}FO_{3}S
<table>
<thead>
<tr>
<th>Chemical Name or Description, Molecular and Graphic Formulæ</th>
</tr>
</thead>
<tbody>
<tr>
<td>suinidazolum suinidazole</td>
</tr>
<tr>
<td>O-methyl [2- (2-ethyl-5-nitroimidazol-1-y1)ethyl] thiocarbarnate</td>
</tr>
<tr>
<td>C_{9}H_{11}N_{4}O_{5}S</td>
</tr>
<tr>
<td>CH_2-CH_2-NH-C-CH_3</td>
</tr>
<tr>
<td>OH</td>
</tr>
<tr>
<td>O_2N</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>C_2H_5</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>taleranolum taleranol</td>
</tr>
<tr>
<td>(3S,7S)-3,4,5,6,7,8,9,10,11,12-decahydro-7,14,16-trihydroxy-3-methyl-1H-2-benzoazacyclotradecin-1-one</td>
</tr>
<tr>
<td>C_{18}H_{26}O_{6}</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>tetroxoprimnum tetroxoprim</td>
</tr>
<tr>
<td>2,4-diamo-5- [3,5-dimethoxy-4- (2-methoxyethoxy) benzyl] pyrimidine</td>
</tr>
<tr>
<td>C_{16}H_{12}N_{4}O_{4}</td>
</tr>
<tr>
<td>CH_2</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>CH_3</td>
</tr>
<tr>
<td>H_3C</td>
</tr>
<tr>
<td>O-(CH_2)_2-O-CH_3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>tiafibratum tiafibrate</td>
</tr>
<tr>
<td>2- (p-chlorophenoxy)-2-methylpropionic acid diester with 2,2'- (decamethylene) diethanol</td>
</tr>
<tr>
<td>C_{24}H_{44}Cl_2O_4S</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>22</td>
</tr>
</tbody>
</table>
tidiasicum
2,4-thiazolidinedicarboxylic acid
C₅H₂NO₄S

tiflemoxonum
tetrahydro-6-(phenoxy methyl)-2H-1,3-oxazine-2-thione
C₁₁H₁₃NO₄S

timonacicum
4-thiazolidinecarboxylic acid
C₄H₇NO₂S

tiropramidum
DL-α-benzamido-ρ-[2-(diethylamino)ethoxy]-N,N-dipropylhydrocinnamamide
C₂₈H₄₁N₃O₉
tocofibratum

tocofibrate

2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-6-chromanyl 2-((\text{p-chlorophenox})-2-methylpropionate

\[
\begin{align*}
\text{C}_{39}\text{H}_{65}\text{ClO}_4
\end{align*}
\]

toxicidatum

toxicilate

O-(1,2,3,4-tetrahydro-1,4-methanonaphthalen-6-yl) \text{m,N-dimethythiocarbanilate}

\[
\begin{align*}
\text{C}_{20}\text{H}_{21}\text{NOS}
\end{align*}
\]

tribuzonum

tribuzone

4-(4,4-dimethyl-3-oxopentyl)-1,2-diphenyl-3,5-pyrazolidinedione

\[
\begin{align*}
\text{C}_{22}\text{H}_{24}\text{N}_{2}\text{O}_{3}
\end{align*}
\]

trifluomeprazinum

trifluomeprazine

10-[(3-(dimethylamino)-2-methylpropyl)-2-(trifluoromethyl)phenothiazine

\[
\begin{align*}
\text{C}_{19}\text{H}_{17}\text{F}_3\text{N}_2\text{S}
\end{align*}
\]
Proposed International Nonproprietary Name (Latin, English)  
Chemical Name or Description, Molecular and Graphic Formulae

zilantelum  
zilantel

phosphonodithioimidocarboxylic acid ethylene dibenzyl P,P',P''-tetraethyl ester  
C_{29}H_{33}N_{2}O_{6}P_{3}S_{4}

\[(\text{H}_5\text{C}_2\text{O})_2\text{P}^\theta\text{N}^\theta\text{C}^\theta\text{S}^\theta\text{CH}_2\text{CH}_2\text{S}^\theta\text{C}^\theta\text{N}^\theta\text{P}(\text{OC}_2\text{H}_5)\]

S-CH\_2  
S-CH\_2

Names for Radicals and Groups

Some substances for which a proposed international nonproprietary name has been established may be used in the form of salts or esters. The radicals or groups involved may be of complex composition and it is then inconvenient to refer to them in systematic chemical nomenclature. Consequently, shorter nonproprietary names for some radicals and groups have been devised or selected, and they are suggested for use with the proposed international nonproprietary names.

\(\text{p-sulfobenzoate}\)

\[
\text{SO}_2^\theta\text{O}^-
\]

\(\text{COOH}\)

\(\text{3,4,5-trimethoxybenzoate}\)

megallate

\[
\text{H}_3\text{C}^\theta\text{C}^\theta\text{C}\text{O}\text{CH}_3
\]

AMENDMENTS TO PREVIOUS LISTS

Vol. 26, No. 9

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

p. 425 delete  
macrisalbrum \((^{131I})\)  
macrisalb \((^{131I})\)

insert  
macrosalbrum \((^{131I})\)  
macrossalb \((^{131I})\)
Proposed International Nonproprietary Names (Prop. INN): List 30

p. 373 acidum tricicum

replace chemical name and graphic formula by the following:
2-chloro-5-[(cis-3,5-dimethylpiperidino)sulfonyl]benzoic acid

\[
\text{COOH} \\
\text{Cl}
\]

\[
\text{H}_3\text{C} \\
\text{N} \\
\text{H} \\
\text{H}_3\text{C} \\
\text{CH}_3
\]

p. 380 delete
dexnorgestrel
dexnorgestrel
insert
levonorgestrel
levonorgestrel

0-13-ethyl-17-hydroxy-18,19-dinor-17α-pregn-4-en-20-yn-3-one
C_{21}H_{29}O_2

\[
\text{N} \\
\text{H} \\
\text{C}
\]

0-(-)-13-ethyl-17-hydroxy-18,19-dinor-17α-pregn-4-en-20-yn-3-one
C_{21}H_{29}O_2

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

. 135 butorphanol
butorphanol

replace chemical name by the following:
(-)-17-(cyclobutylmethyl)morphinan-3,14-diol

147 oxilorphan
oxilorphan

replace chemical name by the following:
(-)-17-(cyclopropylmethyl)morphinan-3,14-diol

Supplement to Vol. 28, No. 9

Proposed International Nonproprietary Names (Prop. INN): List 32

p. 8 galosemidum
galosemid

replace chemical name and graphic formula by the following:
N-[[4-(e.e.e-trifluoro-m-toluidino)-3-pyridyl]sulfonyl]propionamide

\[
\text{N} \\
\text{O}_2 \\
\text{S} \\
\text{NH} - \text{C} - \text{CH}_2\text{CH}_3
\]

p. 22 polysorbatum
polysorbate

In all instances, under the numbered polysorbates, replace:
polyethylene 20 sorbitan by polyoxyethylene 20 sorbitan
replace molecular formula for polysorbate 65 by:
C_{150}H_{276}O_{35}
International Nonproprietary Names for Pharmaceutical Substances: Cumulative List No. 3, 1971

p. 34 delete
cisclomifene
 cisclomifene
2-[p-(2-chloro-cis-1,2-diphenylvinyl)phenoxy]triethylamine
C₈H₂₄CINO

p. 53 insert after the entry "emylcamatum"
encanomifene
encanomifene
2-[p-(2-chloro-trans-1,2-diphenylvinyl)phenoxy]triethylamine
or (E)-2-[p-(2-chloro-1,2-diphenylvinyl)phenoxy]triethylamine
(previous INN: cisclomifene)
C₈H₂₄CINO

p. 132 delete
tranclomifene
tranclomifene
2-[p-(2-chloro-trans-1,2-diphenylvinyl)phenoxy]triethylamine
C₈H₂₄CINO

p. 139 insert after the entry "zoxazolaminum"
zuclomifene
zuclomifene
2-[p-(2-chloro-cis-1,2-diphenylvinyl)phenoxy]triethylamine
or (Z)-2-[p-(2-chloro-1,2-diphenylvinyl)phenoxy]triethylamine
(previous INN: tranclomifene)
C₈H₂₄CINO

p. 119 rufocromonycin
rufocromomycin
replace the present definition by the following:
anticolic obtained from cultures of Streptomyces rufocromogenus or
Streptomyces flocculus, or the same substance produced by any other means;
5-amino-6-[(7-amino-5,8-dihydro-6-methoxy-5,8-dioxo-2-quinolyl)-4-
(2-hydroxy-3,4-dimethoxyphenyl)]-3-methylpicolinic acid
C₈H₂₂N₄O₄

p. 123 delete
streptomarin
streptomarin
5-amino-6-[(7-amino-5,8-dihydro-6-methoxy-5,8-dioxo-2-quinolyl)-4-
(2-hydroxy-3,4-dimethoxyphenyl)]-3-methylpicolinic acid
C₈H₂₂N₄O₄

p. 139 zerenol
zeranol
replace chemical name by the following:
(3S,7R)-3,4,5,6,7,8,9,10,11,12-decahydro-7,14,16-trihydroxy-3-methyl-
1'H-2-benzoxacycloadecin-1-one
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 Export Advisory Panel on the International Classification of Pharmaceuticals and Pharmaceutically Preparations designated for this purpose, for consideration in accordance with the "General principles for guidance in deviating 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 † 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 (Sixth Session, 1960) and amended by the Board in resolution EB43.R8 (Seventeenth Session, 1969, 173, 10).
‡ 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 report WHO/Pharm/67.443, WHO/Pharm/68.447, and WHO/Pharm/70.459).
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 edro, "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 ammine-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, "t" should preferably be used instead of "th", "f" instead of " FH", "l" instead of " LH", "s" instead of "AH", "w" or "oo", and "i" instead of "y".

9. Provided that the names suggested are in accordance with these principles, names proposed by the person discovering 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 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>-actidum</td>
<td>acide</td>
<td>synthetic poly peptides with a corticotrophin-like action</td>
</tr>
<tr>
<td>-andr.</td>
<td>andr.</td>
<td>steroids, androgenic</td>
</tr>
<tr>
<td>-or-stan.</td>
<td>or-stan.</td>
<td>anticoagulants of the coumarin type</td>
</tr>
<tr>
<td>-or-ster.</td>
<td>or-ster.</td>
<td>tranquillizers of the propanediol and pentanediol series</td>
</tr>
<tr>
<td>-bamatum</td>
<td>bamat.</td>
<td>barbituric acids, hypnotic activity</td>
</tr>
<tr>
<td>-bol</td>
<td>bol</td>
<td>anabolic steroids</td>
</tr>
<tr>
<td>-cainum</td>
<td>caine</td>
<td>local anaesthetics</td>
</tr>
<tr>
<td>-cef</td>
<td>cef</td>
<td>antibiotics with cefalosporanic acid nucleus</td>
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<tr>
<td>-cilium</td>
<td>cillin, ciline</td>
<td>penicillins: derivatives of 6-amino-penicillanic acid</td>
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<tr>
<td>-cort</td>
<td>cort</td>
<td>steroids, glucocorticoids and mineralocorticoids, other than prednisolone derivatives</td>
</tr>
<tr>
<td>-num</td>
<td>-amine</td>
<td>acridine derivatives</td>
</tr>
<tr>
<td>-cyclinum</td>
<td>-cycline</td>
<td>curare-like drugs, anticonvulsants, tetra cyclic derivatives</td>
</tr>
<tr>
<td>-estr.</td>
<td>-estr.</td>
<td>estrogens drugs</td>
</tr>
<tr>
<td>-forminum</td>
<td>-formine</td>
<td>guanidine oral anti diabetics</td>
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<td>-gast</td>
<td>-gast</td>
<td>steroids, progestagen</td>
</tr>
<tr>
<td>-gli.</td>
<td>-glik</td>
<td>sulfonamide oral anti diabetics</td>
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<td>-io</td>
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<td>-maxinum</td>
<td>-maxine</td>
<td>monoamine oxidase inhibitors</td>
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<td>-mnimum</td>
<td>-mycin</td>
<td>antimicrobial antibiotics, produced by Streptomyces strains</td>
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<td>-nur-</td>
<td>-nur-</td>
<td>5-nitrofuradiol derivatives</td>
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<td>-onidum</td>
<td>-onide</td>
<td>steroids for topical use: acetal derivatives</td>
</tr>
<tr>
<td>-oxenx</td>
<td>-oxenx</td>
<td>anorexigenic agents</td>
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<tr>
<td>-pramine</td>
<td>-pramine</td>
<td>dibenzazepine, compounds of the imipramine type</td>
</tr>
<tr>
<td>-prost</td>
<td>prost</td>
<td>prostaglandins</td>
</tr>
<tr>
<td>-serpinum</td>
<td>-serpine</td>
<td>derivatives of Reserpina alkaloids</td>
</tr>
<tr>
<td>-sulfu-</td>
<td>sulfu-</td>
<td>sulfonamides, used as antimicrobials</td>
</tr>
<tr>
<td>-terol</td>
<td>-terol</td>
<td>bronchodilators: phenethylamine derivatives</td>
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<tr>
<td>-tizidum</td>
<td>-tizide</td>
<td>diuretics which are thiazide derivatives</td>
</tr>
<tr>
<td>-toinum</td>
<td>-toine</td>
<td>antiepileptics which are hydantoin derivatives</td>
</tr>
<tr>
<td>-veronum</td>
<td>-verine</td>
<td>spasmylotics with a papaverine-like action</td>
</tr>
<tr>
<td>-inum</td>
<td>-ine</td>
<td>alkaloids and organic bases</td>
</tr>
<tr>
<td>-onum</td>
<td>-one</td>
<td>ketones</td>
</tr>
<tr>
<td>-ium</td>
<td>-ium</td>
<td>quaternary ammonium compounds</td>
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