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.

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 49

<table>
<thead>
<tr>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
</tr>
</thead>
<tbody>
<tr>
<td>acidum egtazium</td>
<td>(ethylenebis(oxyethylnenitril)tetraacetic acid</td>
<td>67-42-5</td>
</tr>
<tr>
<td>egtazic acid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comprehensive information on the INN programme can be found in WHO Technical Report Series, No. 586, 1976. [Nonproprietary Names for Pharmaceutical Substances: Twentieth Report of the WHO Expert Committee] ISBN 92 4 120568-1 (price: Swr fr 6.50). An account of this publication will be found on page 24 of this Supplement (Annex 2). All names listed in List 7 of Proposed International Nonproprietary Names, together with a molecular formula index, will be found in International Nonproprietary Names (INN) for Pharmaceutical Substances: Cumulative List No. 6, World Health Organization, Geneva (ISBN 92 4 196031-0) (price: Swr fr 35.50). This publication consists of the main part, which groups together all the proposed and recommended international nonproprietary names (INN) in Latin, English, French, Russian, and Spanish, published up to April 1982. The present list includes all the individual lists of proposed names and 21 lists of recommended names each INN was originally published, and gives references to national nonproprietary names, pharmacopeia monographs, and other sources. In addition, the list contains molecular formulas and Chemical Abstracts Service registry numbers. For easy reference, national nonproprietary names that differ from INN, molecular formulas, and Chemical Abstracts Service registry numbers are indexed in a series of annexes. A final annex describes the procedure for selecting recommended INN and outlines the general principles to be followed in devising these names. All the material published in this volume appears in both English and French.

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

1 See Annex 1, p. 23
2 Other lists of proposed and recommended international nonproprietary names can be found in Cumulative List No. 6, 1982.
<table>
<thead>
<tr>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulæ</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
</tr>
</thead>
<tbody>
<tr>
<td>acidum fosmenicum</td>
<td>(3-cyclohexen-1-ylhydroxymethyl)phosphinic acid</td>
<td>C₆H₈O₃P 13237-70-2</td>
</tr>
<tr>
<td>fosmenic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aditoprinum</td>
<td>2,4-diamino-5-[4-(dimethylamino)-3,5-dimethoxybenzyl]pyrimidine</td>
<td>C₁₅H₁₄N₅O₃ 56885-93-8</td>
</tr>
<tr>
<td>aditoprim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>alfuzosinum</td>
<td>(±)-N-[3-[4-amino-6,7-dimethoxy-2-quinzolinylmethylamino]propyl]tetrahydro-2-furamide</td>
<td>C₁₅H₁₅N₅O₅ 81403-80-7</td>
</tr>
<tr>
<td>alfuzosin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aifedrimum</td>
<td>1-cyclohexyl-3-[(μS,βR)-β-hydroxy-α-methylphenethyl]amino]-1-propanone</td>
<td>C₁₉H₂₇NO₄ 78758-61-3</td>
</tr>
<tr>
<td>aifedrine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Proposed International Nonproprietary Name (Latin, English)  Chemical Name or Description, Molecular and Graphic Formulae  Chemical Abstracts Service (CAS) registry number

alpropridum alpropride  
\((\pm)-N-[1\text{-allyl}-2\text{-pyrrolidinyl}]\text{methyl}]\text{-4-amino-5-(methylsulfamoyl)}\text{-o-anisamide}
\text{C}_{14}\text{H}_{19}\text{N}_{2}\text{O}_{5}\text{S}  81962-32-3

-\text{pamilum} -\text{amil}  
\text{2-[3-}[\text{m-methoxyphenethyl}]\text{methylamino}][\text{propyl}]\text{-2-[m-methoxyphenyl]-}
\text{tetradecanentriile}
\text{C}_{36}\text{H}_{43}\text{N}_{2}\text{O}_{7} \quad 83200-10-6

bambuterolum bambuterol  
\((\pm)-5\text{-[2-}[\text{tert-butylamino}]\text{-1-hydroxyethyl]-m-phenylene bis(dimethylcarba-}
\text{mate)}\n\text{C}_{22}\text{H}_{36}\text{N}_{2}\text{O}_{9} \quad 81732-85-2

bithionoxidum bithionoxide  
\text{2,2'-sulfinylibis[4,6-dichlorophenol]}
\text{C}_{22}\text{H}_{18}\text{Cl}_{4}\text{O}_{4} \quad 844-26-8
<table>
<thead>
<tr>
<th>Chemical Name or Description, Molecular and Graphic Formulæ</th>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
</tr>
</thead>
<tbody>
<tr>
<td>boforisum</td>
<td>(3R,4aR,5,5S,6aS,10aS,10aR,10bS)-dodecahydro-5,6,10b-tetrahydroxy-3,4a,7,7,10a-pentamethyl-3-vinyl-1H-naphtha[2,1-b]pyran-1-one, 5-acetate</td>
<td>C₃₀H₄₁O₅       66575-23-9</td>
</tr>
<tr>
<td>boforisin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bromadolinum</td>
<td>trans-p-bromo-N-[2, (dimethylamino)cyclohexyl]benzamide</td>
<td>C₁₅H₁₈BrN₂O     67578-24-2</td>
</tr>
<tr>
<td>bromadoline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>bucladesinum</td>
<td>N-(9-β-D-nbofuranosyl)-9H purin-6-yl)butyramide cyclic 3',5'-[hydogen phosphate] 2'-butyrate</td>
<td>C₈₉H₁₈N₅O₅P⁺  392-74-3</td>
</tr>
<tr>
<td>bucladesine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>buccalinum</td>
<td>9-(butylamino)-1,2,3,4-tetrahydroacridine</td>
<td>C₂₈H₂₆N₂O       316-19-4</td>
</tr>
<tr>
<td>buccaine</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Proposed International Nonproprietary Name (Latin, English)</strong></td>
<td><strong>Chemical Name or Description, Molecular and Graphic Formulae</strong></td>
<td><strong>Chemical Abstracts Service (CAS) registry number</strong></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>caracemidum caracemide</td>
<td>N-acetyl-N,D-bis[methylcarbamoyl]hydroxylamine</td>
<td>81424-87-1</td>
</tr>
</tbody>
</table>

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

| cafetamatum cafetamet | (6R,7R)-7-[2-{2-amino-4-thiazyloyl}glyoxylamido]-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid 7-[Z] (D-methyloxime) | 65052-63-3 |

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

| ceftiolenum ceftiolene | (6R,7R)-7-[2-{2-amino-4-thiazyloyl}glyoxylamido]-3-[(E)-2-[4-(formyl)methyl]-1,4,5,6-tetrahydro-5,6-dioxo-3-thiazin-3-yl]thio[vinyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid 7-[Z] (D-methyloxime) | 77360-52-2 |

\[
\begin{align*}
  &\text{H}_2\text{N} - \text{N} - \text{S} - \text{S} - \text{C} - \text{C} - \text{O} - \text{O} \\
  &\text{O} \\
  &\text{O} \\
  &\text{O} \\
  &\text{O} \\
  &\text{O} \\
  &\text{N} - \text{C} - \text{NH} - \text{CH}_3 \\
  &\text{COOH}
\end{align*}
\]
Proposed International Nonproprietary Name (Latin, English) | Chemical Name or Description, Molecular and Graphic Formulae | Chemical Abstracts Service (CAS) registry number
---|---|---
cisapridum cisapride | cis-4-amino-5-chloro-N-[1-[3-(p-fluorophenoxy)propyl]-3-methoxy-4 piperidyl]-o-anisamide | 81098-60-4

dacistainum dacistaine | N-acetyl-L-cysteine, acetate (ester) | 18725-37-6

dazodipinum dazodipine | diethyl 4-(4-benzofurazanyl)-1,4-dihydro-2,6-dimethyl-3,5 pyridinedicarboxylate | 72003-02-2

dexindoprofenum dexindoprofan | (+)-(S)-2-(1-oxo-2-isocdoliny)hydratropic acid | 53086-13-8
**Proposed International Nonproprietary Name (Latin, English)**

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

**Chemical Abstracts Service (CAS) registry number**

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dienogestum
dienogest

17-hydroxy-3-oxo-19-nor-17α-pregna-4,9 diene-21-nitrile

C_{22}H_{30}NO_5 65928-58-7

---

ditercalinium chloridum
ditercalinium chloride

2,2'-(4,4'-bipiperidine)-1,1'-diyl diethylene bis[10-methoxy-7H-pyrido[4,3-c]-carbazolium] dichloride

C_{48}H_{58}ClO_8N_4 74617-42-3

---

dithomustium

dithomustine

1,1'-[dithiodiethylene]bis[3-(2-chloroethyl)-1(or 3)-nitrosourea]

C_{46}H_{42}Cl_2N_6O_5S_2 82596-22-2
<table>
<thead>
<tr>
<th>Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
</tr>
</thead>
<tbody>
<tr>
<td>dibendazolum</td>
<td>methyl 5-(cyclohexylthio)-2-benzimidazolcarbamate</td>
<td>53967-18-3</td>
</tr>
<tr>
<td>dibendazole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>edetolium</td>
<td>1,1',1''-(ethylenedinitro)tetra-2-propanol</td>
<td>102-60-3</td>
</tr>
<tr>
<td>edetol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>elnustrium</td>
<td>1-(2-chloroethyl)-3-(2-hydroxyethyl)-1-nitrosourea</td>
<td>60784-46-5</td>
</tr>
<tr>
<td>elmustine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>enoxacinum</td>
<td>1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-1,8-naphthyridine-3-carboxylic acid</td>
<td>74011-58-8</td>
</tr>
<tr>
<td>enoxacin</td>
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<td></td>
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<tr>
<td>enviradenum</td>
<td>(E)-2-amino-1-(isopropylsulfonyl)-6-(1-phenylpropenyl)benzimidazole</td>
<td>90989-95-2</td>
</tr>
<tr>
<td>enviradene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposed International Nonproprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecular and Graphic Formulæ</td>
<td>Chemical Abstracts Service (CAS) registry number</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>eprosindium</td>
<td>(+)-N-[3-(diethylamino)-2-hydroxypropyl]-3-methoxy-1-phenylindole-2-carboxamide</td>
<td>83200-08-2</td>
</tr>
<tr>
<td>eprosindine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>eubendazolum</td>
<td>methyl 5-[2-([p-fluorophenyl]-1,3-dioxolan-2-yl]-2-benzimidazolecarbamate</td>
<td>64420-40-2</td>
</tr>
<tr>
<td>eubendazole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fenofibratrum</td>
<td>(+)-2-[[α-(p-chlorophenyl)-α-hydroxy-p-tolyl]oxy] 2-methylpropionic acid</td>
<td>54419-31-7</td>
</tr>
<tr>
<td>fenofibrate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fexolaminum</td>
<td>1-[3-(dimethylamino)propyl]-3,4-diphenylpyrazole</td>
<td>80410-36-2</td>
</tr>
<tr>
<td>fexolamine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
flumazepilum
flumazepil
ethyl 8-fluoro-5,6-dihydro-5-methyl-6-oxo 4H-imidazo[1,5-a][1,4]benzodiazepine-3-carboxylate
C_{13}H_{14}FN_{2}O_{3} 78755-81-4

idazoxanum
idazoxan
(±)-2-(1,4-benzodioxan-2-yl)-2-imidazoline
C_{14}H_{14}N_{2}O_{2} 79644-58-4

imidololum
imidolol
(±)-1-[3-[[2-hydroxy-3-(1-naphthoxy)propyl]amino]-3-methylbutyl]-2-benzimidazolinone
C_{20}H_{20}N_{3}O_{4} 78459-19-5
Proposed International Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulae

Chemical Abstracts Service (CAS) registry number

isotiquimidum
isotiquimide

\( (\pm) \cdot 5,6,7,8\text{-tetrahydro-4\text{-}methylthio-8\text{-}quinolinecarboxamide} \)

\( \text{C}_{11}\text{H}_{12}\text{N}_{2}\text{S} \)

56717-18-1

ketofanolium
ketofanol

17-(cyclopropylmethyl)-4-hydroxymorphinan-6-one

\( \text{C}_{38}\text{H}_{44}\text{NO}_{6} \)

79798-39-3

magaldratum
magastrate

aluminium magnesium hydroxide sulfate, hydrate (anhysrous)

\( \text{Al}_{2}\text{Mg}_{10}\text{(OH)}_{25}\text{(SO}_{4})_{4}\cdot x\text{H}_{2}\text{O} \)

74978-16-8

menabitanum
menebitan

\( (\pm) \cdot 8\text{-}[1,2\text{-dimethylheptyl}]\cdot 1,3,4,5\text{-tetrahydro-5,5\text{-}dimethyl-2\text{-}[2\text{-propynyl}]-}2\text{H}]\cdot 1\text{benzopyran}[4,3\text{-c}]\text{pyridin-10\text{-}yl a,2\text{-}dimethyl-1\text{-}piperidinebutyrate} \)

\( \text{C}_{39}\text{H}_{64}\text{N}_{2}\text{O}_{6} \)

93794-21-8
<table>
<thead>
<tr>
<th>Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Chemical Abstracts Service [CAS] registry number</th>
</tr>
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<tbody>
<tr>
<td>mepixanoxum mepixanox</td>
<td>3-methoxy-4-[(piperidinomethyl)xanthen-9-one</td>
<td>17854-58-0</td>
</tr>
<tr>
<td></td>
<td>C_{13}H_{16}NO_{3}</td>
<td></td>
</tr>
<tr>
<td>mifobatum mifobate</td>
<td>dimethyl (p-chloro-α-hydroxybenzyl)phosphonate, dimethyl phosphate</td>
<td>76541-72-5</td>
</tr>
<tr>
<td></td>
<td>C_{19}H_{18}ClNO_{3}</td>
<td></td>
</tr>
<tr>
<td>murabutidum murabutide</td>
<td>2-acetamido-3-0-[(R)-1-[[S]-1-[(R)-3-carbamoyl-1-carboxypropyl]carbamoyl]ethyl]carbamoyl]ethy]-2-deoxy-β-glucopyranosyl butyl ester</td>
<td>74817-81-1</td>
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<tr>
<td></td>
<td>C_{28}H_{33}N_{5}O_{10}</td>
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<tr>
<td>Proposed International Name</td>
<td>Nonproprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecular and Graphic Formule</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>nabazenil</td>
<td>nabazenil</td>
<td>3-[(1,2-dimethylheptyl)-7,8,9,10-tetrahydro-6,6,9-trimethyl-6H-dibenzo[b,d]pyran-1-yl hexahydro-1H-azeaepine-1-butyrate</td>
</tr>
<tr>
<td>nabilonum</td>
<td>nabilone</td>
<td>(±)-trans-3-(1,1-dimethylheptyl)-6,6a,7,8,10a-hexahydro-1-hydroxy-6,6-dimethyl-9H-dibenzo[b,d]pyran-9-one</td>
</tr>
<tr>
<td>nacartocinum</td>
<td>nacartocin</td>
<td>1-(3-mercaptopropionic acid)-2-[3-(p-ethylphenyl)-L-alanine]-6-L-2-aminobutyric acid]-oxytocin</td>
</tr>
<tr>
<td>Proposed International Name (Latin, English)</td>
<td>Nonproprietary Name (Latin, English)</td>
<td>Chemical Name or Description, Molecular and Graphic Formulae</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>nafamidonum</td>
<td>nafamidine</td>
<td>2-imidazol-1-yl-2'-acetanaphthone</td>
</tr>
<tr>
<td>npradololum</td>
<td>npradoli</td>
<td>8-[2-hydroxy-3-(isopropylamino)propoxy]-3-chromanol, 3-nitrate</td>
</tr>
<tr>
<td>nomegestrolum</td>
<td>nomegestrol</td>
<td>17-hydroxy-6-methyl-19-norpregna-4,6-diene-3,20-dione</td>
</tr>
<tr>
<td>ofloxacinum</td>
<td>ofloxacin</td>
<td>(±)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzoxazine-5-carboxylic acid</td>
</tr>
</tbody>
</table>
oxalinastum
oxalinast

\[
\text{\( \pm \)}-\{6,7,8,9a\text{-tetrahydro-2-oxo-3-} \text{acenaphthene} \text{yl} \text{oxamic acid}
\]
\[
\text{C}_{20}\text{H}_{25}\text{NO}_{3}
\]
\[7009-86-4\]

\[
\text{\( \text{O} \)}
\]
\[
\text{\( \text{O} \)}
\]
\[
\text{\( \text{O} \)}
\]
\[
\text{\( \text{CH}_2 \)}
\]
\[
\text{\( \text{CH}_2 \)}
\]
\[
\text{\( \text{NH} \)}
\]

panuraminum
panuramine

\[
\text{1-benzoyl-3-\{1-(2-naphthyl(methyl)-4-piperidyl)urea}
\]
\[
\text{C}_{23}\text{H}_{27}\text{N}_{10}\text{O}_{2}
\]
\[80349-58-2\]

\[
\text{O}
\]
\[
\text{O}
\]
\[
\text{C}
\]
\[
\text{C}
\]
\[
\text{N}
\]
\[
\text{N}
\]
\[
\text{NH}
\]
\[
\text{NH}
\]

pincanidum
pincainide

\[
\text{2,3,4,5,6,7-hexahydro-1H-azepine-1-aceto-2,6'-xylidine}
\]
\[
\text{C}_{20}\text{H}_{20}\text{N}_{10}\text{O}
\]
\[83471-41-4\]

\[
\text{O}
\]
\[
\text{C}
\]
\[
\text{C}
\]
\[
\text{C}
\]
\[
\text{N}
\]
\[
\text{CH}_2
\]

piraxelatum
piraxelate

\[
\text{3,3,5-trimethylcyclohexyl 2-oxo-1-pyridineacetate}
\]
\[
\text{C}_{20}\text{H}_{20}\text{N}_{2}\text{O}_{2}
\]
\[82265-33-0\]

\[
\text{O}
\]
\[
\text{O}
\]
\[
\text{CH}_3
\]
\[
\text{CH}_3
\]

pirenoxinum
pirenoxine

\[
1\text{-hydroxy-5-oxo-5H-pyrido}[3,2-\text{a}]\text{phenoxazine-3-carboxylic acid}
\]
\[
\text{C}_{16}\text{H}_{14}\text{N}_{2}\text{O}_{4}
\]
\[1043-21-6\]
<table>
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<tr>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulas</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
</tr>
</thead>
<tbody>
<tr>
<td>piroxicilinum piroxicillín</td>
<td>(2S,5R,6R)-6-[(1R)-2-(p-hydroxyphenyl)-2-[3-[4-hydroxy-2-(p-sulfamoylanilino)-5-pyrimidinyl]ureido]acetamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid</td>
<td>62908-56-8</td>
</tr>
<tr>
<td>plaunotol</td>
<td>(2Z,6E)-2-[(3E)-4,8-dimethyl-3,7-nonadienyl]-6-methyl-2,6-octadiene-1,8-diol</td>
<td>84219-02-6</td>
</tr>
<tr>
<td>remoxipridum remoxipride</td>
<td>(S)-3-bromo-N-[(1-ethyl-2-pyrrolidinyl)methyl]-2,6-dimethoxybenzamide</td>
<td>80125-14-0</td>
</tr>
<tr>
<td>noprostilum noprostil</td>
<td>(2R,3R,4R)-4-hydroxy-2-[7-hydroxyheptyl]-3-[(E)-(4RS):[4-hydroxy-4-methyl-1-octenyl]]cyclopentanone</td>
<td>77287-05-9</td>
</tr>
</tbody>
</table>
**Proposed International Nonproprietary Name (Latin, English)**

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

rolgamidinum
rolgamidine

trans-N-(diaminomethylene)-2,5-dimethyl-3-pyrroline-1-acetamide
C\textsubscript{9}H_{13}N.O 86608-04-6

sofalconum
sofalcone

[5-[(3-methyl-2-butenyl)oxy]-2-[\(\rho\)-[(3-methyl-2-butenyl)oxy]cinnamoxyloxy]acetic acid
C\textsubscript{28}H_{40}O\textsubscript{6}S 64506-49-6

sulosemidum
sulosemide

2-(furfurylamino)-4-phenoxy-5-sulfamoylibenzensulfonic acid
C\textsubscript{27}H_{29}N.O\textsubscript{5}S 82968-82-4

taltrimidum
taltrimide

\(N\)-isoproxyl-1,3-dioxo-2-isooindoleethanesulfonamide
C\textsubscript{16}H\textsubscript{23}N.O\textsubscript{6}S 81428-04-8
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<td>tebuquinum</td>
<td>3-[[tert-butylamino)methyl]-4'-chloro-5-[[7-chloro-4-quinoyl]amino]-2-biphenylol</td>
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<tr>
<td>tebuquine</td>
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<td>thymopentium</td>
<td>(N)-[N-(N)-(N)-(N)-l-arginyl-(l)-lysyl-(l)-(\alpha)-aspartyl-(l)-valyl-(l)-tyrosine</td>
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<td>8-{1,2-dimethylheptyl}-1,2,3,5-tetrahydro-5,5-dimethylthiopyrano[2,3-(c)][1]benzopyran-10-ol</td>
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<td>Chemical Abstracts Service (CAS) registry number</td>
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<td>tizabrinum</td>
<td>(1R,3S,5R)-2,2,5-trimethyl-3-thiomorpholinecarboxylic acid, 1-oxide</td>
<td>83573-63-9</td>
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<td>tizabrin</td>
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<td>tomoxetinum</td>
<td>(-)-N-methyl-3-phenyl-3-(o-tolyloxy)propylamine</td>
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<tr>
<td>tomoxetine</td>
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<tr>
<td>trimoprostilum</td>
<td>(Z)-7-[(1R,2R,3R)-2-[(E),(3R)]-3-hydroxy-4,4-dimethyl-1-octenyl]-3-methyl-5-oxocyclopentyl]-5-heptenoic acid</td>
<td>69900-72-7</td>
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<td>trimoprostil</td>
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19
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<th>Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulæ</th>
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<tr>
<td>windeburnol</td>
<td>(±)-20,21-dinor-18x-eburnamine or</td>
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<tr>
<td>windeburnol</td>
<td>(±)-{12R*,13aR*,13bS*}-2,3,5,6,12,13,13a,13b-octahydro-1H-indolo[3,2,1-de]pyrido[3,2,1-ij][1,5]naphthyridin-12-ol</td>
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<tr>
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<tr>
<td>viroximum</td>
<td>2-amino-6-benzoyl-1-(isopropylsulfonyl)benzimidazole oxime, mixture of E and Z isomers</td>
</tr>
<tr>
<td>viroxime</td>
<td>C_{15}H_{18}N_{2}O_{2}S</td>
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<td>zornebazamum</td>
<td>4,8-dihydro-1,3,8-trimethyl-4-phenylpyrazolo[3,4-b][1,4]diazepine-5,7(1H,5H)-dione</td>
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<tr>
<td>zornebazam</td>
<td>C_{21}H_{26}N_{4}O_{2}</td>
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</tr>
</tbody>
</table>
AMENDMENTS TO PREVIOUS LISTS

Vol. 34, No. 9

International Nonproprietary Names (Prop. INN): List 44

p. 22 sulmazolum, sulmazole

replace chemical name and graphic formula by 2-[2-methoxy-4-(methylsulfonyl)phenyl]-3H-imidazo[4,5-b]pyridine

Vol. 35, No. 5

International Nonproprietary Names (Prop. INN): List 46

p. 7 delete insert
disoprofolum propofol

disoprofol propofol

Vol. 36, No. 2

International Nonproprietary Names (Prop. INN): List 47

p. 11 delete insert

nailetrenum nalmefenum

nailetrene nalmefen

p. 16 eptamestrol/etamestrol replace correction under List 48 p of INN (WHO Chronicle, Vol. 35, No. 5) by the following.
p. 8 delete
eptamestrolum etamestrol
International Nonproprietary Names (Prop. INN): List 48

p. 4  delete  insert
biprofenodum  bifepramidum
biprotendide  bifepramide

p. 5  butantronum  replace the O atom in the ring structure by a C atom
butantronide

p. 17  delete
rifaxidinem  rifaximinum
rifaxidin  rifaximin
rosaprostolum  replace chemical name and structure by the following: (1RS,2SR,5RS)-2-hexyl-5-hydroxycyclopentaneheptanoic acid, mixture with (1RS,2SR,5SR)-2-hexyl-5-hydroxycyclopentaneheptanoic acid
roseprostol

p. 25  ridafline/ridiflone  replace correction under List 46 p. INN (WHO Chronicle, Vol. 35, No. 5) by the following:
p. 16  delete
   ridafilonum
   ridafline
Annex 1

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.

4. 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.

5. 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, unless 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,

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 NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES

1. International Nonproprietary Names (INN) should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names in common use.

2. The INN 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 anatomical, physiological, pathological or therapeutic suggestion should be avoided.

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

4. In devising INN 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".

5. INN 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.

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.

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

7. To facilitate the translation and pronunciation of INN, "-" should be used instead of "-ph", "-t" instead of "th", "-e" instead of "ae" or "oe", and "i" instead of "y"; the use of the letters "h" and "k" should be avoided.

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.

9. Group relationship in INN (see Guiding Principle 2) should only be used for substances of the appropriate group. Where a stem is shown without any hyphens it may be used anywhere in the name.

Subsidiary group relationships should be shown by devising INN which show similarities to and are analogous with a previously named substance.

<table>
<thead>
<tr>
<th>Latin</th>
<th>English</th>
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<td>-azepam</td>
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synthetic polypeptides with a corticotrophin-like action

steroids, androgens

anticoagulants of the dicumarol group

substances of the diazepam group

β-lactamase inhibitors

steroids, anabolic

anti-inflammatory analgesics of the phenylbutazone group

local anesthetics, derivatives of cefalosporanic acid

antibiotics, derivatives of 5-amino-penicillanic acid

corticosteroids, except those of the prednisolone group

antibiotics of the tetracycline group

estrogenic substances

substances of the clofibrate group

hypoglycemics of the phenformin group

steroids, progestogens

sulfonamide hypoglycemics

iodine-containing contrast media

quaternary ammonium compounds

anti-inflammatory substances of the indometacin group

antibiotics, produced by Streptomyces strains

antiprotozoal substances of the metronidazole group

β-adrenergic blocking agents of the propranolol group

steroids for topical use, containing an acetyl group

anorexic agents, phenethyldime derivatives

substances of the imipramine group

anti-inflammatory substances of the ibuprofen group

prostaglandins

hypophysial hormone release-stimulating peptides

sulfonamides, anti-infective

bronchodilators, phenethyldime derivatives

Hi-receptor antagonists

diuretics of the chlorothiazide group

colic acid antagonists

spasmolytics with a papaverine-like action

Annex 2

NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES:
TWENTIETH REPORT OF THE WHO EXPERT COMMITTEE

In its twentieth report, the WHO Expert Committee on Nonproprietary Names for Pharmaceutical Substances reviewed the general principles for devising, and the procedures for selecting, international nonproprietary names (INN) in the light of developments in pharmaceutical compounds in recent years. The most significant recent change has been the extension to the naming of synthetic chemical substances of the practice previously used for substances originating in or derived from natural products. This practice involves employing a characteristic "stem" indicative of a common property of the members of a group. The reasons for, and the implications of, the change are fully discussed. Also reported is the intention to change the practice with regard to the nomenclature of individual members of polymeric series.

Other sections of the report concern instructions to be followed by bodies making application for international nonproprietary names, the availability of computer-printed cumulative lists of international nonproprietary names, information supplied by WHO Member States concerning their official use of national or interna-
tional names for pharmaceutical products, and proposals relative to the withdrawal of international nonproprietary names allocated to substances that are no longer in use.

The official texts relating to the procedures for selecting, and general guidance for devising, international nonproprietary names are reproduced in two annexes to the report. Other annexes give examples of international nonproprietary names that incorporate selected stems, the most frequently used initial groups of letters in international nonproprietary names, a historical review of the programme of selecting international nonproprietary names, some useful literature references, and a model of the form to be used in all applications for international nonproprietary names.