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 WHO Drug Information, e.g., for List 63 Prop. INN not later than 31 January 1991.

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.

Action and Use
The statements in italics indicating the action and use are based largely on information supplied by the manufacturer. The information is meant to provide an indication of the potential use of new substances at the time they are accorded proposed INNs. WHO is not in a position either to uphold these statements or to comment on the efficacy of the action claimed. Because of their provisional nature these descriptors will be neither revised nor included in the Cumulative Lists of INN.

Proposed International Nonproprietary Names (Prop. INN): List 63

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2 Other lists of proposed and recommended international nonproprietary names can be found in Cumulative List No. 7, 1988.
acidum penteticum  
N,N-bis[2-(bis(carboxymethyl)amino)ethyl]glycine
C₂₀H₂₆N₂O₁₀  67-43-6  diagnostic acid

adaprololum  
2-[(1-adamantyl)ethyl (±)-2-2-hydroxy-3-(isopropylamino)propoxy]phenylacetate
C₂₉H₃₅NO₄  101479-70-3  β-adrenoceptor antagonist

adospinum  
N-(5,6-dihydro-5-methyl-6,11-dioxo-10-morphanthidinyl)acetamide
C₁₁H₁₃NO₂  89124-29-9  urinary incontinence agent

afalaninum  
N-acetyl-3-phenyl-α-alanine or N-acetyl-α-phenylalanine
C₁₁H₁₃NO₂  2801-75-9  antidepressant

aldesleukinum  
125-I-serine-2-133-interleukin 2 (human reduced)
C₁₉₄H₁₁₃N₁₁₁O₁₆₀S₆  110942-02-4  immunomodulator

asobamastum  
2-phenoxyethyl [4-(3-methyl-5-isoxazolyl)-2-thiazolyl]oxamate
C₁₇H₁₇N₂O₄S  104777-09-9  antiallergic, antiasthmatic
Proposed International Chemical Name or Description, Molecular and Graphic Formulae
Nonproprietary Name (Latin, English) Chemical Abstracts Service (CAS) registry number
Action and use

berlafenonum berlafenone
(±)-1-(2-biphenylxyloxy)-3-(tert-butylamino)-2-propanol
C_{14}H_{13}NO_2 18965-97-4 antidiysrhythmic

bidisomidum bidisomide
(±)-α-(chlorophenyl)-ω-[2-(N-isopropylacetamide)ethyl]-1-piperidine-
butyramide
C_{22}H_{24}ClN_{2}O_{2} 116078-65-0 antidiysrhythmic

butixocortum butixocort
11β,17-dihydroxy-21-mercaptopregn-4-ene-3,20-dione 17-butyrate
C_{24}H_{30}O_8 120815-74-9 anti-inflammatory,
                      glucocorticosteroid

cafiliamidum cafilamide
hydrogen [N,N-bis[2-([carboxymethyl][methylcarbamoyl])methyl]-
aminoethyl][glycinato(3-)]calciate(1-)
C_{30}H_{30}CaN_{2}O_{8} 128328-81-8 diagnostic aid

cefeceolium cefeceol
(6R,7R)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-8-oxo-5-thia-1-aza-
bicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[2-[[S]-α-carboxy-3,4-
dihydroxybenzyl]oxime]
C_{26}H_{19}N_{2}O_{8}S_{2} 117211-03-7 antibiotic
Proposed International Nonproprietary Name (Latin, English)  Chemical Name or Description, Molecular and Graphic Formulae  Chemical Abstracts Service (CAS) registry number  Action and use

cilobradnum  cilobradine  (±)-3-[[1-[3,4-dimethoxyphenethyl]-3-piperidyl]methyl]-1,3,4,5-tetrahydro-7,8-dimethoxy-2H-3-benzazepin-2-one  C_{28}H_{32}N_{2}O_{4}  109659-50-9  bradycardic agent

crivalstatin  crivalstatin  5-oxo-L-proline, (±)-cis-3,3,5-trimethylcyclohexyl ester  C_{10}H_{14}NO_{3}  120651-59-9  antihyperlipidaemic

dacopalantum  dacopalant  (3R)-3-(3-pyrdyl)-1H-3H-pyrrolo[1,2-c]thiazole-7-carboxamide  C_{14}H_{12}N_{6}O_{5}  125372-33-0  platelet-activating factor antagonist

docetaxolum  docetaxol  (2R,3S)-N-carboxy-3-phenylisoserine, N-tert-buty1 ester, 13-ester with 5β,20-epoxy-1,2a,4,7α,10β,13α-hexahydrotax-11-en-9-one 4-acetate 2-benzoate  C_{42}H_{62}NO_{14}  114977-28-5  antineoplastic
**Proposed International Nonproprietary Name**

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

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

**Action and use**

<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>
<th>Action and use</th>
</tr>
</thead>
<tbody>
<tr>
<td>doramectum</td>
<td>25-cyclohexyl-6-O-demethyl-25-ce(1-methylpropyl)avermectin A₁₄ or (2a,4,6,8,10a,12a,14a,16a,18a,19,20a,20b)-cyclohexyl-5a,8,9,10,11,14,15,17a,20,20a-b-dodecahydro-20b-dihydroxy-5',6,8,9,19-tetramethyl-17-oxospiro[11,15-methano-2H-furo[4,3,2-qp][2,6]benzodioxacyclooctadecin-13,2'-[2'H]pyran]-7-yl 2,6-dideoxy-4-O-{2,6-dideoxy-3-O-methyl-L-arabino-hexopyranosyl)-3-O-methyl-L-arabino-hexopyranoside</td>
<td>C₉₂H₁₃₂O₁₇</td>
<td>antiparasitic</td>
</tr>
</tbody>
</table>


| jidum | N-[5-(2,4-difluorophenoxy)-1-oxo-5-indanyl]methanesulfonamide | C₃₉H₂₄F₂NO₇S | nonsteroidal anti-inflammatory |

| fomepizolum | 4-methylpyrazole | C₈H₈N₂ | antidote |
gadodiamide

\[
\text{aqua}[N,N\text{-bis}[2\cdot\{\text{carboxymethyl}\}[[\text{methylcarbamoyl}]\text{methyl}]\text{amino}]\text{ethyl}]\text{-glycinato}(3\cdot)]\text{gadolinium hydrate}
\]

\[
\text{C}_{26}\text{H}_{48}\text{GdN}_{12}\text{O}_{13} \cdot x\text{H}_{2}\text{O}
\]

122795-43-1 

paramagnetic contrast medium


giracodazole

giracodazolum

\[
(\pm\cdot)\text{-}2\text{-amino-o\{-[1S]\text{-}amino}\cdot1\text{-}chloroethyl\}\text{imidazo]-4\text{-}methanol}
\]

\[
\text{C}_{16}\text{H}_{15}\text{ClN}_{5}\text{O}
\]

110883-46-0 

antineoplastic


dibilidium

dibilide

\[
(\pm\cdot)\text{-}4\text{-}(\text{ethylheptylamino})\cdot1\text{-}hydroxybutyl\text{methanesulfonanilide}
\]

\[
\text{C}_{29}\text{H}_{38}\text{N}_{3}\text{O}_{3}\text{S}
\]

122641-31-8 

antidyssrhythmic


isalstoinum

isalstine

\[
(\pm\cdot)\text{-}\text{N-[2\cdot[2\text{-methyl-4-oxo-1,3-benzodioxan-2-yl]thio}\text{propionyl}]\text{glycine}}
\]

\[
\text{C}_{21}\text{H}_{25}\text{NO}_{5}\text{S}
\]

116818-99-8 

mucolytic


dedazerol

dedazerol

2-hydroxy-3-(imidazol-4-yl)methy]benzyl alcohol

\[
\text{C}_{17}\text{H}_{23}\text{N}_{2}\text{O}_{2}
\]

116795-87-2 

antianginal


tenosulfiridum

tenosulfiride

\[
(\pm\cdot)\text{-N-[3\cdot1\text{-ethy}-2\text{-pyrrolidiny}]\text{methyl}]\cdot5\text{-sulfamoyl-o-anisamide}
\]

\[
\text{C}_{18}\text{H}_{23}\text{N}_{2}\text{O}_{5}\text{S}
\]

23672-07-3 

antiemetinc
<table>
<thead>
<tr>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Action and use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisdexamethasone</td>
<td>sunscreen</td>
</tr>
<tr>
<td>Lisdemate</td>
<td>(+)-glycerol 1-(p-aminobenzoate) C_{13}H_{23}NO_{4} 136-44-7</td>
</tr>
<tr>
<td>Lometrexol</td>
<td>antineoplastic</td>
</tr>
<tr>
<td>Lomeitrexol</td>
<td>N{p-[2-[(R)-2-amino-3,4,5,6,7,8-hexahydro-4-oxopyrido[2,3-d]pyrimidin-6-yl]ethyl]benzoyl]-l-glutamic acid C_{27}H_{29}N_{5}O_{6} 106400-81-1</td>
</tr>
<tr>
<td>Masoprocol</td>
<td>antineoplastic</td>
</tr>
<tr>
<td>Masoprocol</td>
<td>meso-4',4''-(2,3-dimethyltriamethylene)dipyrocatechol C_{13}H_{24}O_{4} 27686-84-8</td>
</tr>
<tr>
<td>Midastatin</td>
<td>mucolytic</td>
</tr>
<tr>
<td>Midastatin</td>
<td>2-thiophene-carboxylic acid, S-ester with (+)-2-mercaptop-N-(tetrahydro-2-oxo-3-thienyl)propionamide C_{12}H_{14}N_{2}O_{5}S 94149-41-4</td>
</tr>
<tr>
<td>Miripirn chloride</td>
<td>disinfectant</td>
</tr>
<tr>
<td>Miripirnium chloride</td>
<td>1-tetradecyl-4-picolinium chloride C_{24}H_{23}CIN 2748-98-1</td>
</tr>
</tbody>
</table>
Proposed International Nonproprietary Name (Latin, English)

Chemical Name or Description, Molecular and Graphic Formulæ

Chemical Abstracts Service (CAS) registry number

Action and use

mivazerol

\( \alpha \)-imidazol-4-yl-2,3-cresotamide

\[ C_{19}H_{14}N_O_2 \]

125472-02-8

antihistamine

modocainidum

\([\pm\text{-}]-2\text{-}[2\text{-}[1\text{-}methyl\text{-}2\text{-}pyridyl]ethyl]\text{vanillic acid} \]

\[ C_{20}H_{20}N_O_2 \]

81329-71-7

antidysrhythmic

naroparclium

\( \rho\text{-}[\rho\text{-}[5\text{-}thio}-\beta\text{-}x\text{-xylopyransyl} \text{thio}]\text{benzoyl} \text{benzonitrile} \]

\[ C_{23}H_{25}NO_2S_2 \]

120819-70-7

antithrombotic

nemazolinum

2\text{-}[4\text{-}amino\text{-}3,5\text{-}dichlorobenzyl]\text{-}2\text{-}imidazoline

\[ C_{16}H_{17}Cl_N_2 \]

nasal vasoconstrictor

neticonazolum

\( [\varepsilon\text{-}1\text{-}[2\text{-}(\text{methylene})\text{-}1\text{-}[\alpha\text{-}(\text{pentoxy} \text{phenyl})\text{vinyl}]\text{imidazole} \]

\[ C_{19}H_{20}N_O_2S \]

11173-99-9

antifungal
<table>
<thead>
<tr>
<th>Proposed International Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formulae</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
<th>Action and use</th>
</tr>
</thead>
<tbody>
<tr>
<td>nicoracetamum nicoracetam</td>
<td>1-(6-methoxynicotinoyl)-2-pyrrolidinone</td>
<td>125326-80-7</td>
<td>nootropic agent</td>
</tr>
<tr>
<td>ormapiatinum ormapiatin</td>
<td>(+)-trans-tetrachloro(1,2-cyclohexanediamine)platinum</td>
<td>62816-98-2</td>
<td>antineoplastic</td>
</tr>
<tr>
<td>otenzepadum otenzepad</td>
<td>(+)-11-[(2-[(diethylamino)methyl]piperidino]acetyl]-5,11-dihydro-6H-pyrido[2,3-b][1,4]benzodiazepin-6-one</td>
<td>100135-36-1</td>
<td>antiadrenergic agent</td>
</tr>
<tr>
<td>pegademasum pegademase</td>
<td>adenosine deaminase, reaction product with succinic anhydride, esters with polyethylene glycol monomethyl ether. The source of the product should be indicated as enzyme.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pidotimodum pidotimod</td>
<td>(R)-3-[[(S)-5-oxoproyl]-4-thiazolidinylcarboxylic acid</td>
<td>121808-62-6</td>
<td>immunomodulator</td>
</tr>
<tr>
<td>prodavirium prodavir</td>
<td>ethyl p-[2-[1-(6-methyl-3-pyridazinyl)-4-piperidyl]ethoxy]benzoate</td>
<td>124436-59-5</td>
<td>antiviral</td>
</tr>
</tbody>
</table>
 Proposed International Nonproprietary Name (Latin, English)  Chemical Name or Description, Molecular and Graphic Formulæ

prisotininium  \[\text{C}_{17}\text{H}_{18}\text{N}_{4}\text{O}_{7}\]  78997-40-7  nootropic agent

propagermanium  \(\text{polymer obtained from 3-(trihydroxygermyl)proplonic acid}\)  \((\text{C}_{37}\text{H}_{26}\text{GeO}_{3})_n\)  immunomodulator

\[\text{C}_{20}\text{H}_{19}\text{N}_{4}\text{O}_{2}\]  128298-28-2  antiepileptic

repagermanium  \(\text{poly-trans-}[2\text{-carboxyethyl]germasesquioxane}]\)  \((\text{C}_{30}\text{H}_{28}\text{GeO}_{9})_n\)  immunomodulator

\(\text{R} = \text{CH}_{3}\text{COOH}\)

rispenzepnium  \((\pm)-6,11\text{-dihydro-11-\{1-methylpipecooyl\}-5H-pyrido[2,3-b][1,5]benzodiazepin-5-one}\)  \(\text{C}_{14}\text{H}_{16}\text{N}_{2}\text{O}_{3}\)  96449-05-7  antispasmodic
Proposed International
Nonproprietary Name (Latin, English)

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

roxadimatum
roxadimate

ethyl (±)-p-[bis(2-hydroxypropyl)amino]benzoate

C_{24}H_{29}NO_{8} 98892-17-0 sunscreen

H_2C — CH — CH_2
H_2C — CH — CH_2

sarpogrelatun
sarpogrelate

(±)-2-(dimethylamino)-1-[[o-(m-methoxyphenethyl)phenoxy)methyl]ethyldium hydrogen succinate

C_{19}H_{19}NO_{8} 125926-17-2 platelet aggregation inhibitor

HOOCC — CH_3 — CH = CH — CH_2 — N(CH_3)_2

serazapinum
serazapine

methyl (±)-1,3,4,16b-tetrahydro-2-methyl-2H,10H-indolo[2,1-c]pyrazino-[1,2-a][1,4]benzodiazepine-16-carboxylate

C_{24}H_{25}NO_{8} 115313-22-9 anxiolytic

H_2CO

sitlenzapanum
sitlenzopine

5-[N,N-bis(2-hydroxyethyl)glycyl]-8-chloro-5,10-dihydro-11H-dibenzo[b,e][1,4]diazepin-11-one

C_{24}H_{30}ClN_{2}O_{4} 96374-54-0 antihyper

O — O

somagrebovum
somagrebove

L-[N-(2-[(2-methionyl)-L-aspartyl])-L-glutamine]growth hormone (ox reduced)

C_{71}H_{126}N_{24}O_{39}S_{6} 96383-48-9 growth hormone
<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>
<th>Action and use</th>
</tr>
</thead>
<tbody>
<tr>
<td>somavubovum</td>
<td>127-4-leucine growth hormone (ox)</td>
<td>C_{14}H_{41}N_{31}O_{24}S_{5} 126752-39-4</td>
<td>growth hormone (vet.)</td>
</tr>
<tr>
<td>somavubove</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sparflloxacinan</td>
<td>5-amino-1-cyclopropyl-7-[(cis-3,5-dimethyl-1-piperazinyl)-6,8-difluoro-1,4-</td>
<td>C_{18}H_{22}F_{6}N_{2}O_{5} 110917-86-8</td>
<td>antibacterial</td>
</tr>
<tr>
<td></td>
<td>dihydro-4-oxo-3-quinoxinecarboxylic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>spiri prostil</td>
<td>(±)-(5R,6S,7R*)-7-hexyl-2,4-dioxo-1,3-diazaspiro[4,4]nonane-6-heptanoic acid</td>
<td>C_{26}H_{29}N_{3}O_{4} 122946-42-3</td>
<td>antiulcer</td>
</tr>
<tr>
<td>spiri prostil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sucrosolatum</td>
<td>sucrose octakis(hydrogen sulfate)</td>
<td>C_{12}H_{22}O_{3}S_{4} 57680-56-5</td>
<td>antiulcer</td>
</tr>
<tr>
<td>sucrosolate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sulazuril</td>
<td>2-(3,5-dichloro-4-{[p-(methy)sulfonyl]phenoylphenyl}dihydro-1-methyl-</td>
<td>C_{14}H_{14}Cl_{1}N_{3}O_{5}S 103858-89-5</td>
<td>coccidiostatic</td>
</tr>
<tr>
<td>sulazuril</td>
<td>as-triazine-3,5(2H,4H)-dione</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sulparoidum natricum</td>
<td>heparin sulfate, sodium salt</td>
<td>C_{4}H_{10}NO_{3}S_{4}Na_{5} 57459-72-0</td>
<td>fibrinolytic</td>
</tr>
<tr>
<td>sulparoid sodium</td>
<td></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

Action and use

sufofenurum sufofenur

1-((p-chlorophenyl)-3-(5-indanylsulfanyl)urea

C₉H₉ClN₂O₂S 110311-27-8 antineoplastic

sufokestum sufokest

3-[[1R2E4Z]-1-[(oS)-α-hydroxy-m-1H-tetrazol-5-ylbenzyl]-2,4-tetradecamethylene]thiopropanoic acid

C₅H₁₂N₂O₂S 98115-93-1 antihistaminic

taurousteinum taurostone

N-2-theyuoytaurine

C₅H₁₂N₂O₂S 124066-33-7 mucolytic

tobuflonum tobuflone

3',5'-di-tert-butyl-4'-hydroxy-5-hexynophenone

C₃H₁₄O₂ 112019-00-5 nonsteroidal anti-inflammatory

[ bis[[2,3-butanedione dioximato(1-)-O][2,3-butanedione dioximato)(2--O)bis(borato(2-)-N,N', N'', N''') chloro(Tc)technetium(III)]

C₁₀H₁₂BO₂N₆O₄Tc 106417-28-1 diagnostic agent
<table>
<thead>
<tr>
<th>Proposed International Nonproprietary Name (Latin, English)</th>
<th>Chemical Name or Description, Molecular and Graphic Formula</th>
<th>Chemical Abstracts Service (CAS) registry number</th>
<th>Action and use</th>
</tr>
</thead>
<tbody>
<tr>
<td>telmesetinum telmesetine</td>
<td>(-)-3-ethyl hydrogen (R)-3,4-thiazolidinedicarboxylate</td>
<td>122946-43-4</td>
<td>mucolytic</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Telmesetinum" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tenosalium tenosal</td>
<td>2-thiophencarboxylic acid, ester with salicylic acid</td>
<td>95232-68-1</td>
<td>nonsteroidal anti-inflammatory, analgesic</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tenosalium" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tenosiprolum tenosiprol</td>
<td>(R)-4-hydroxy-L-proline 2-thiophencarboxylate (ester)</td>
<td></td>
<td>nonsteroidal anti-inflammatory</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tenosiprol" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>terbequanium terbequani</td>
<td>1,4-dihydro-1-(methoxymethyl)-4-oxo-N-propyl-3-quinolinecarboxamide</td>
<td>113079-82-6</td>
<td>partial benzodiazepine receptor inverse agonist</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Terbequani" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td>tiagabium  tiagabine</td>
<td>(-)-(R)-1-[4,4-bis(3-methyl-2-thienyl)-3-butenyl]nicotinic acid</td>
<td>115103-84-3</td>
<td>antiepileptic</td>
</tr>
<tr>
<td></td>
<td><img src="image" alt="Tiagabium" /></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**

**Action and use**

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**Tiralazadum**

![Chemical Structure of Tiralazadum](image)

21-[(4-[(2,6-di-1-pyrrolidinyl-4-pyrimidinyl)-1-piperazinyl]-16α-methylpregna-1,4,9(11)-triene-3,20-dione

C₉H₁₆N₂O₂ 110101-66-1  *lipid peroxidation inhibitor*

---

**Tibilaprilum**

![Chemical Structure of Tibilaprilum](image)

(S)-2-tert-butyl-4-[(S)-N-[(S)-1-carboxy-3-phenylpropyl]alanyl]-d'-1,3,4-thiadiazoline-5-carboxylic acid, 4-ethyl ester

C₉H₁₄N₂O₅S 109883-61-6  *angiotensin converting enzyme inhibitor*

---

**Vanoxerinum**

![Chemical Structure of Vanoxerine](image)

1-[[2-[(2-fluorophenyl)methoxy]ethyl]-4-(3-phenylpropyl)piperazine

C₉H₁₄F₂N₂O 67469-69-6  *antidepressant, antiparkinsonian*

---

**Zeniplatinum**

![Chemical Structure of Zeniplatin](image)

cis-[2,2-bis[aminomethyl]-1,3-propanediol][1,1-cyclobutane-dicarboxylato]platinum

C₁₄H₁₂N₂O₃Pt 111490-36-9  *antineoplastic*
Properinternational
NonproprietaryName(Latin,English)

ChemicalNameorDescription,MolecularandGraphicFormulæ
ChemicalAbstractsService(CAS)registrynumber
Actionanduse

zilascorbium(TH)
zilascorb(TH)
5,6-O-[(RS)-benzylidene-α-L]-α-ascorbicacid
C₁₀H₁₇O₆S 122431-95-3 antineoplastic

zileuton
zileuton
(±)-1-[(1-benzo[b]thien-2-ylthyl)-1-hydroxyurea
C₁₃H₁₈N₄O₂S 111406-87-2 leukotriene synthesis inhibitor

zofenoprilatun
zofenoprilat
(4S)-1-[(S)-3-mercaptopropionyl]-4-(phenylthio)-L-proline
C₁₃H₂₀NO₅S 75175-37-3 angiotensin-converting enzyme inhibitor
Names for Radicals and Groups

Some substances for which a proposed international non-proprietary 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 non-proprietary names.

docosilum

docosil

docosyl

\[ \text{C}_{22}\text{H}_{46} \]

\[ \text{H}_2\text{O} - (\text{CH}_3)_{26} - \text{CH}_2 - \]

xinafoas

xinafoate

1-hydroxy-2-naphthoate

\[ \text{C}_{11}\text{H}_7\text{O}_3 \]
AMENDMENTS
TO PREVIOUS LISTS

WHO Drug Information Vol. 1, No. 3, 1987

Proposed International Nonproprietary Names (Prop. INN): List 58
p. 188  saruplasum  saruplase

replace the definition and the molecular formula by the following:
prourokinase (enzyme-activating) (human clone pUK4/pUK18)
C_{283}H_{373}N_{44}O_{64}S_{21}


Proposed International Nonproprietary Names (Prop. INN): List 59
p. 9  murodermin  murodermin

replace the molecular formula and the CAS registry number by the following:
C_{225}H_{276}N_{25}O_{43}S_{5},  54917-73-1


Proposed International Nonproprietary Names (Prop. INN): List 61
p. 9  delete
emonapridum  emonapride

insert
nemonapridum  nemonapride

p. 14  moxidectinum  moxidectin

replace the graphic formula by the following:

p. 18  tenidapum  tenidap

replace the chemical name, the CAS registry number and the graphic formula
by the following:
(Z)-5-chloro-3-(α-hydroxy-2-thienylidene)-2-oxo-1-indolinecarboxamide
120210-48-2
<table>
<thead>
<tr>
<th>Page</th>
<th>Proposed Name</th>
<th>Action</th>
<th>New Name</th>
<th>Action</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>brifentanil</td>
<td>replace</td>
<td>brifentanil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>cicloseronide</td>
<td>add</td>
<td>ciclosone</td>
<td></td>
<td>126544-47-6</td>
</tr>
<tr>
<td>5</td>
<td>daproprerin</td>
<td>delete</td>
<td>sapropterin</td>
<td></td>
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<tr>
<td>5</td>
<td>daproprerin</td>
<td>insert</td>
<td>sapropterin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>etomoxir</td>
<td>replace</td>
<td>etomoxir</td>
<td></td>
<td>124083-20-1</td>
</tr>
</tbody>
</table>

**Chemical Structure**

![Chemical Structure](image)
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 WHA31.11:

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

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

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

A. Such notice shall be given by publication in the Chronicle of the World Health Organization 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 the 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.

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. These primary principles are to be implemented by using the following secondary principles.

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. "oxaclinil" and "oxacillin" and "ibutenaclum" and "ibutenac 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 amino-salt style.

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

To facilitate the translation and pronunciation of INN, "i" should be used instead of "ph", "t" instead of "th", "e" instead of "ac" or "ce", and "u" 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 if possible be shown by using a common stem. The following list contains examples of stems for groups of substances, particularly for new groups. There are many other stems in active use.

Where a stem is shown without any hyphens it may be used anywhere in the name.

- Latin
  - acumin
  - actidum
  - adolum
  - aromatic
  - ast
  - azepamum
  - bactumum
  - bixinum
  - bizonum
  --bound
  - cinnum
  - cefin
  - conazolum
  - cort
  - diphnum
  - fubatum
  - gest
  - glin
  - io
  - ium
  - metamincum
  - mycinulum
  - nidazolum
  - oloin
  - oxacinum
  - pridum
  - prilatrum
  - priopen
  - pristinum
  - reelbnum
  - terolum
  - tidinum
  - trexatum
  - vernnum
  - vin

- English
  - ac
  - acetyde
  - adol
  - adrenal
  - ast
  - azepam
  - bactam
  - bixin
  - cinin
  - cefin
  - conazole
  - cort
  - dipine
  - fibrate
  - gest
  - gli
  - io
  - ium
  - metacinum
  - mycin
  - nidazol
  - oloin
  - oxacin
  - pridum
  - prilatrum
  - prilopen
  - pristinum
  - reelbnum
  - terolum
  - tidinum
  - trexate
  - vernine
  - vin

- anti-inflammatory agents of the ibufenac group
- synthetic polypeptides with a corticotrophin-like action
- analgesics
- anti-asthmatic, anti-allergic substances not acting primarily as antihistaminics
- antihistamines
- substances of the diazepam group
- "beta"-lactamase inhibitors
- steroids, anabolic
- antihistamines
- beta-lactamase inhibitors
- antibiotics, derivatives of cefalosporanic acid
- antibiotics, derivatives of 6-amnopenicillamic acid
- systemic antifungal agents of the miconazole group
- corticosteroids, except those of the prednisolone group
- calcium antagonists of the nifedipine group
- substances of the clofibrate 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
- "beta"-adrenergic blocking agents
- antibacterial agents of the nalidix acid group
- sulpiride derivatives
- angiotensin-converting enzyme inhibitors
- anti-inflammatory substances of the ibuprofen group
- prostaglandins
- hypophysal hormone release-stimulating peptides
- bronchodilators, phenethyamine derivatives
- folic acid antagonists
- spasmolytics with a papaverine-like action
- vinca type alkaloids

1 A more extensive listing of stems is contained in the working document Pharm/6/Nov 15 which is regularly updated and can be requested from Pharmaceutics, WHO, Geneva
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 international 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.


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