# 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 pwing names are under consideration by the norld 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 64 Prop. INN not later than 31 August 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 INNs.

# Proposed International Nonproprietary Names (Prop. INN): List 642

Comprehensive information on the INN programme can be found in WHO Technical Report Series, No. 581, 1975 (Nonproprietary Names for Pharmaceutical Substances Twentieth Report of the WHO Expert Committee), ISBN 92.4 120581.4 (price. Sw. fr. 6—); an account of this publication will be found in Annex 2 of the present List. All names from Lists 1–58 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. 7, 1988, World Health Organization, Geneva (ISBN 92.4 0560149) (price. Sw. fr. 65.—). This publication consists, in the main, of a computer prinduct which groups together all the proposed and recommended international nonproprietary names (INN)—in Latin, English, French, Russian, and Spanish—published up to March 1988. The printout also indicates in which of the 58 individual lists of proposed names and 27 lists of recommended names each INN was originally published, and gives references to national nonproprietary names, pharmacopoeia monographs, and other sources. In addition, the list contains molecular formulae and Chemical Abstracts Service registry numbers. For easy reference, national nonproprietary names that differ from INN, molecular formulae, 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 textual 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 WHO Drug Information. 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.

<sup>&</sup>lt;sup>1</sup> Text adopted by the Executive Board of WHO in resolution EB15.R7 (Off. Rec. Wid Hith Org., 1955, **60**, 3) and amended by the Board in resolution EB43.R9 (Off. Rec. Wid. Hith Org., 1969, **173**, 10).

Other lists of proposed and recommended international nonproprietary names can be found in Cumulative List No. 7, 1988.

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

abanoquilum abanoquil 4-amino-2-(3,4-dihydro-6,7-dimethoxy-2(1*H*)-isoquinolyl)-6,7-dimethoxy-quinoline

C<sub>22</sub>H<sub>25</sub>N<sub>3</sub>O<sub>4</sub> 90402-40-7

a<sub>1</sub>-adrenoreceptor antagonist

acadesinum acadesine

5-amıno-1- $\beta$ -p-ribofuranosylimidazole-4-carboxamide C<sub>9</sub>H<sub>14</sub>N<sub>4</sub>O<sub>5</sub> 2627-69-2 cardiac stimulant

acıdum gadobenicum gadobenic acid dihydrogen ( $\pm$ )-[4-carboxy-5,8,11-tris(carboxymethyl)-1-phenyl-2-oxa-5,8,11-triazatridecan-13-oato(5-)]gadolinate(2-)  $C_{22}H_{29}GdN_3O_{11} \qquad 113662-23-0 \qquad paramagnetic \ contrast \ medium$ 

adapalenum adapalene 6-[3-(1-adamantyl)-4-methoxyphenyl]-2-naphthoic acid  $C_{2a}H_{2a}O_3$  106685-40-9 antiacne agent

adozelesinum adozelesin

 $\begin{array}{ll} (7bR.8aS)-N\cdot[2\cdot[(4.5,8,8a\cdot tetrahydro-7-methyl-4-oxocyclopropa[c]pyrrolo-[3,2-e]nndol-2(1H)-yl)carbonyi]indol-5-yl]-2-benzofurancarboxamide\\ C_{30}H_{22}N_4O_4 & 110314-48-2 & antineoplastic \end{array}$ 

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

alentemolum alentemol (+)-2-(dipropylamino)-2.3-dihydrophenalen-5-ol  $C_{19}H_{25}NO$  112891-97-1 antipsychotic

)okalantum amokalant  $(\pm)$ -p-[3-[ethyl[3-(propy|sulfinyl)propyl]amino]-2-hydroxypropoxy]benzonıtrile C10-R28N2O3S 123955-10-2 antidysrhytmic

$$\begin{array}{c} OH_{1} \\ OH_{2} \\ OH_{3} \\ OH_{2} \\ OH_{3} \\ OH_{3$$

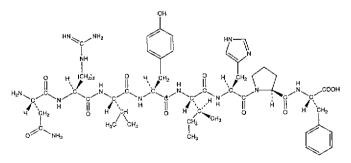
ameltolidum ameltolide  $\begin{array}{lll} \mbox{4-amino-2',6'-benzoxylidide} \\ \mbox{C}_{15}\mbox{H}_{16}\mbox{N}_{2}\mbox{O} & 787-93-9 \end{array}$ 

anticonvulsant

angiotensinum II angiotensin II

)

5-L-isoleucineangiotensın II The source of the material should be indicated.  $C_{so}H_{71}N_{13}O_{12}$  4474-91-3 vasoconstrictor



aprikalimum aprikalim

(–)- $(1R^*,2R^*)$ -tetrahydro-*N*-methyl-2-(3-pyridyl)thio-2*H*-thiopyran-2-carboxamide 1-oxide  $C_{12}H_{16}N_2OS_2$  92569-65-8 potassium channel activator

aprosulatum natricum aprosulate sodium

N,N'-trimethylenebis[lactobionamide] hexadecakis(sodium sulfate) (ester)  $C_{27}H_{34}N_2Na_{16}O_{70}S_{16}$  123072-45-7 anticoagulant

arbutamınum arbutamine (R)-3,4-dihydroxy-a-[[[4-(p-hydroxyphenyl)butyl]amino]methyl]benzyl alcohol C<sub>18</sub>H<sub>22</sub>NO<sub>4</sub> 128470-16-6 cardiac stimulant

avizafonum avizafone 2'-benzoyl-4'-chloro-2-[(S)-2,6-diaminohexanamıdo]-N-methylacetanilide  $C_{22}H_{27}CIN_4O_3$  65617-86-9 anxiolytic, anticonvulsant

barnidipinum barnidipine  $(\pm)\text{-}(3'S,4S)\text{-}1\text{-}\text{penzyl-3-pyrrolidinyl methyl}$  1.4-dihydro-2,6-dimethyl-4-(m-nitrophenyl)-3.5-pyridinedicarboxylate C  $_{27}\text{H}_{29}\text{N}_3\text{O}_6$  104713-75-9 calcium antagonist

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

batelapinum batelapine 2-methyl-5-(4-methyl-1-piperazinyl)-11H-s-triazolo[1,5-c][1,3]benzodiazepine  $C_{1e}H_{2o}N_s$  95634-82-5 antipsychotic

\_9 bemesetronum bemesetron

endo-8-methyl-8-azabicyclo[3.2.1]oct-3-yl 3,5-dichlorobenzoate C<sub>1s</sub>H<sub>17</sub>Cl<sub>2</sub>NO<sub>2</sub> 40796-97-2 serotonin antagonist

bertosamilum bertosamil 3'-ısobutyl-7'-isopropylspiro[cyclohexane-1,9'-[3,7]diazabicyclo[3.3.1]nonane]  $C_{10}H_{36}N_2$  126825-36-3 anti-ischaemic

betamıpronum betamipron *N*-benzoyl- $\beta$ -alanine  $C_{10}H_{11}NO_3$  3440-28-6

bımakalımum bımakalım 2,2-dimethyl-4-(2-oxo-1(2H)-pyridyi)-2H-1-benzopyran-6-carbonitrile  $C_{17}H_{14}N_2O_2$  117545-11-6 potassium channel activator

bindaritum bindarit

2-[(1-benzyl-1*H*-indazol-3-yl)methoxy]-2-methylpropionic acid  $C_{19}H_{20}N_2O_3$  130641-38-2 antirheumatic

brinazaronum brinazarone

p-[3-(tert-butylamino)propoxy]phenyl 2-isopropyl-3-indolizinyl ketone C<sub>25</sub>H<sub>32</sub>N<sub>2</sub>O<sub>2</sub> 89622-90-2 calcium antagonist

$$\begin{array}{c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ &$$

carperitidum carperitide

Ser — Leu — Arg — Arg — Ser — Ser — Cys — Phé — Gly — Cly — Arg — Met — Asp — Asp —

| Ser — Leu — Arg — Arg — Met — Asp — Asp — Asp — Fer — Phe — Arg — Tyr

cefclidinum cefclidin

 $\label{eq:continuity} $$(+)-1-[[(6R,7R)-7-[2-(5-amino-1,2,4-thradiazol-3-yl)]glyoxylamido]-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-3-yl]methyl]-4-carbamoylquinuclidinium hydroxide, inner sait, <math display="inline">7^2-(Z)-(C-methyloxime)$   $C_{21}H_{26}N_4O_6S_2 \qquad 105239-91-6 \qquad antibiotic$ 

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

cefdaloximum cefdaloxime (+)-(6R,7R)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-3-(methoxymethyl)-8-oxo-5-thia-1-azabicyclo[4.2 0]oct-2-ene-2-carboxylate,  $7^2$ -(Z)-oxime  $C_{14}H_{15}N_5O_4S_2$  antibiotic

ronaprilum \_\_9napril 1-[(2S)-6-amino-2-hydroxyhexanoyl]-u-proline, hydrogen (4-phenyl-butyl)phosphonate (ester)

C<sub>21</sub>H<sub>33</sub>N<sub>2</sub>O<sub>6</sub>P

111223-26-8

angiotensin converting enzyme inhibitor

cetrorelixum cetrorelix N-acetyl-3-(2-naphthyl)-p-alanyl- $\rho$ -chloro-p-phenylalanyl-3-(3-pyridyl)-p-alanyl-seryl-L-tyrosyl-Ns-carbamoyl-p-ornithyl-L-leucyl-L-arginyl-L-prolyl-p-alanin-amide

C<sub>70</sub>H<sub>92</sub>CIN<sub>17</sub>O<sub>14</sub>

antineoplastic

colfoscerili palmitas colfosceril palmitate

choline hydroxide, dihydrogen phosphate, inner salt, ester with L-1,2-dipalmitin or 1,2-dipalmitoyl-sn-glycero-3-phosphocholine  $C_{40}H_{40}NO_{4}P$  63-89-8 surfactant replacement

corticorelinum corticorelin corticotropin-releasing factor The source of the material should be indicated.  $C_{205}H_{339}N_{59}O_{63}S \qquad \qquad \textit{diagnostic agent}$ 

 $\begin{array}{lll} H = Ser - Gin - Giu - Pro - Pro - Hie - Ser - Leu - Asp - Leu - Thr - Phe - His - Leu - Leu - Giu - Val - Leu - Giu - Met - Thr - Lys - Aia - Asp - Gin - Leu - Aa - Gih - Gih - Aia - His - Ser - Asn - Arg - Lys - Leu - Leu - Aa - Gih - Gih - Aia - His - Ser - Asn - Arg - Lys - Leu - Leu - Asp - Hie - Aia - NH2 \\ \end{array}$ 

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

crospovidonum crospovidone

1-vinyl-2-pyrrolidinone polymer, crosslinked (C<sub>s</sub>H<sub>s</sub>NO)n 9003-39-8 pharmaceutical aid

dalfopristinum dalfopristin  $\begin{array}{ll} (3R,4R,5E,10E,12E,14S,26R,26aS)-26-[[2-(diethylamino)ethyl]sulfonyl]-8,9,14,15,24,25,26,26a-octahydro-14-hydroxy-3-isopropyl-4,12-dimethyl-3$ *H*-21,18-nitrilo-1*H*,22*H*-pyrrolo[2,1c][1,8,4,19]dioxadiazacyclotetracosine-1,7,16,22(4*H*,7*H* $)-tetrone <math display="block">C_{34}H_{50}N_{4}O_{9}S & 112362-50-2 & antibacterial \end{array}$ 

H<sub>3</sub>C CH H O H O N N N O CH<sub>3</sub> CH<sub>2</sub> CH<sub>2</sub>

dalteparinum natricum dalteparin sodium

Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa, the majority of the components have a 2-O-sulfo-a-L-idopyranosuronic acid structure at the non-reducing end and a 6-O-sulfo-2,5-anhydro-p-mannitol structure at the reducing end of their chain; the average relative molecular mass is about 5000, 90 per cent of which ranging between 2000 and 9000; the degree of sulfatation is 2 to 2,5 per disaccharidic unit.

anticoagulant

dalvastatinum dalvastatin

 $(\pm)-(4R^*,6S^*)-6-[(E)-2-[2-(4-fluoro-m-tolyl)-4,4,6,6-tetramethyl-1-cyclohexen-1-yl]vinyl]tetrahydro-4-hydroxy-2H-pyran-2-one $C_{24}H_{31}FO_3$ 132100-55-1 antihyperlipidaemic$ 

dexormaplatinum dexormaplatin

(+)-trans-tetrachioro(1,2-cyclohexanediamine)platinum  $C_eH_{1+}Cl_4N_2$ Pt 96392-96-0 antineoplastic

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

didanosinum didanosine

2',3'-dideoxyinosine

C<sub>10</sub>H<sub>12</sub>N<sub>4</sub>O<sub>3</sub> 69655-05-6

antiviral

diethyltoluamidum diethyltoluamide

N,N-diethyl-m-toluamide C12H17NO

insect repellent

dofetilidum dofeti)ide

 $\beta$ -[( $\rho$ -methanesulfonamidophenethyl]methylamino]methanesulfonop-phenetidide C<sub>19</sub>H<sub>27</sub>N<sub>3</sub>O<sub>5</sub>S<sub>2</sub>

115256-11-6

antidysrhythmic

dıtaflazınum. 'aflazine

 $(\pm)$ -4'-amıno-4-[5,5-bis(p-fluorophenyl)pentyl]-2-carbamoyl-2',6'-dichloro-1-piperazineacetanilide

C<sub>30</sub>H<sub>33</sub>Cl<sub>2</sub>F<sub>2</sub>N<sub>5</sub>O<sub>2</sub>

120770-34-5

coronary vasodilator

eberconazolum eberconazole

 $(\pm)$ -1-(2,4-dichloro-10,11-dihydro-5*H*-dibenzo[a,d]cyclohepten-5-yl)ımidazole C18H14Cl2N2 128326-82-9 antifungal

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

ecabetum ecabet

13-isopropyl-12-sulfopodocarpa-8,11,13-trien-15-oic acid 33159-27-2 C<sub>20</sub>H<sub>28</sub>O<sub>5</sub>S antiulcer

englitazonum englitazone

(-)-5-[[(2R)-2-benzyl-6-chromanyl]methyl]-2,4-thiazolidinedione  $\rm C_{20}H_{19}NO_3S$  109229-58-5 antidiabetic

enloplatinum enloplatin

cis-(1,1-cyclobutanedicarboxylato)[tetrahydro-4H-pyran-4,4-bis(methylamine)]platinum

C<sub>13</sub>H<sub>22</sub>Ñ<sub>2</sub>O<sub>5</sub>Pt

111523-41-2

antineoplastic

eprobemidum eprobemide

p-chloro-N-(3-morpholinopropyl)benzamide  $C_{14}H_{19}CIN_2O_2$  87940-60-1 and antidepressant

etarotenum etarotene

6- $[(E)-\rho$ -(ethylsulfonyl)-a-methylstyryl]-1,2,3,4-tetrahydro-1,1,4,4-tetramethylnaphthalene

C25H32O2S

87719-32-2

dermatological

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

fadrozolum fadrozole ( $\pm$ )-p-(5,6,7,8-tetrahydroimidazo[1,5-a]pyridin-5-yl)benzonitrile  $C_{14}H_{13}N_3$  102676-47-1 antineoplastic

fantofaronum fantofarone 1-[[p-[3-[(3,4-dimethoxyphenethyl)methylamino]propoxy]phenyl]-sulfonyl]-2-isopropylindolizine
C<sub>13</sub>H<sub>38</sub>N<sub>2</sub>O<sub>5</sub>S 114432-13-2 calcium antagonist

fasudilum fasudil  $\begin{array}{lll} hexahydro-1-(5-isoquinolylsulfonyl)-1\textit{H-}1,4-diazepine \\ C_{14}H_{17}N_{3}O_{2}S & 103745-39-7 & \textit{vasodilator} \end{array}$ 

filgrastimum filgrastim

N-L-methionylcolony-stimulating factor (human clone 1034)  $C_{445}H_{1339}N_{223}O_{243}S_9$  121181-53-1 immunomodulator

flosatidilum flosatidil isobutyl [2-(dimethylamıno)ethyl][[o-(methylthio)phenyl]-[m-(trıfluoromethyl)benzyl]carbamoyl]methyl]carbamate  $C_{28}H_{34}F_3N_3O_3S$  113593-34-3 calcium antagonist

fluorodopum (18F) fluorodopa (18F)

3-(2-fluoro-<sup>18</sup> F-4,5-dihydroxyphenyl)-L-alanine C<sub>8</sub>H<sub>10</sub><sup>18</sup>FNO<sub>4</sub> 92812-82-3 radioactive diagnostic agent

gadoteridolum gadoteridol

(±)-[10-(2-hydroxypropyl)-1,4,7,10-tetraazacyclodecane-1,4,7-triacetato[(3-)]gadolinium C<sub>17</sub>H<sub>28</sub>GdN<sub>4</sub>O<sub>7</sub> 120066-54-8 paramagnetic contrast medium

irinotecanum Irinotecan

(+)-7-ethyl-10-hydroxycamptothecine 10-[1,4'-biperidine]-1'-carboxylate or (+)-(S)-4,11-diethyl-4,9-dihydroxy-1H-pyrano[3',4':6,7]indolizino[1,2-b]-quinoline-3,14(4H,12H)-dione 9-[1,4'-bipiperidine]-1'-carboxylate  $C_{33}H_{36}N_4O_6$  97682-44-5 antineoplastic

lanreotidum lanreotide

3-(2-naphthyl)-D-alanyl-L-cysteinyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-valyl-cysteinyl-L-threoninamide, cyclic (2 $\rightarrow$ 7)-disulfide C<sub>54</sub>H<sub>e9</sub>N<sub>11</sub>O<sub>10</sub>S<sub>2</sub> 108736-35-2 antineoplastic

lenograstimum lenograstim

133-[O-[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)-[O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)]-2-factor (human clone 1034) mixture with 133-[O-[O-(N-acetyl- $\alpha$ -neuraminosyl)-(2 $\rightarrow$ 3)- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 3)]-2-acetamido-2-deoxy- $\beta$ -D-galactopyranosyl]-L-threonine]colony-stimulating factor (human clone 1034)

*immunomodulator* 

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

leucialumerum leuciglumer

L-leucine polymer with 5-methyl hydrogen L-glutamate  $(C_6H_{13}NO_2)m \cdot (C_6H_{11}NO_4)n$  41385-14-2 dermatological

rubicınum leurubicin

(8S,10S)-10-[[3-[(S)-2-amino-4-methylvaleramido]-2,3,6-trideoxy-a-i-lyxo-methylvaleramido]hexopyranosyl]oxy]-8-glycoloyl-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-5,12-naphthacenedione C33H40N2O12 70774-25-3

antineoplastic

**!evofloxacinum** ofloxacin

(-)-(S)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid C<sub>18</sub>H<sub>20</sub>FN<sub>3</sub>Ò<sub>4</sub> 100986-85-4 antibacterial

levomentholum levomenthol

(-)-(1R,3R,4S)-menthol 2216-51-5

decongestant, carminative

liarozolum liarozole

 $(\pm)$ -5-(m-chloro-a-imidazol-1-ylbenzyi)benzimidazole C<sub>17</sub>H<sub>13</sub>CIN<sub>4</sub> 115575-11-6 antiandrogen

firanaftatum liranaftate

O-(5,6,7,8,-tetrahydro-2-naphthyl) 6-methoxy-N-methylthio-2ругіdіпесагbamate

C18H20N2O2S 88678-31-3

antifungal

 $\hat{q}^{*}$ 

litoxetinum litoxetine

4-(2-naphthylmethoxy)piperidine C15H15NO 86811-09-8

antidepressant

loteprednolum loteprednot

chloromethyl 11 $\beta$ ,17-dihydroxy-3-oxoandrosta-1.4-diene-17 $\beta$ -carboxylic acid anti-inflammatory

loxoribinum loxoribine

7-allyl-2-amıno-9- $\beta$ -p-ribofuranosylpurine-6,8(1H,9H)-dione C13H17N5O6 121288-39-9 immunostimulant

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

lufirontium lufironii N,N'-bis(2-methoxyethyl)-2,4-pyridinedicarboxamide C<sub>13</sub>H<sub>15</sub>N<sub>3</sub>O<sub>4</sub> 128075-79-6 collagen inhibitor

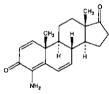
abuprofenum abuprofen

 $(\pm)$ -N-(2-hydroxyethyl)-p-isobutylhydratropamide  $C_{15}H_{23}NO_2$  82821-47-4 analgesic, non-steroidal anti-inflammatory

melarsominum melarsomine bis(2-ammoethyl)  $\rho$ -[(4,6-diamino-s-triazin-2-yl)amino]dithiobenzenearsonite  $C_{13}H_{21}AsN_{8}S_{2}$  128470-15-5 antifilarial

minamestanum minamestane  $\begin{array}{lll} \text{4-aminoandrosta-1,4,6-triene-3,17-dione} \\ \text{C}_{19}\text{H}_{23}\text{NO}_2 & \text{105051-87-4} & \text{antineoplastic} \end{array}$ 

m≀namestane



mipragosidum mipragoside N-(II³-N-acetylneuramınosylgangliotetraosyl)ceramide, isopropyl ester  $C_{76}H_{137}N_3O_{31}$  131129-98-1 ganglioside

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

mirfentanilum mirfentanil

N-(1-phenethyl-4-piperidyl)-N-pyrazinyl-2-furamide  $C_{22}H_{24}N_4O_2$  117523-47-4 analgesic

mizolastinum mizolastine

2-[[1-[1-(p-fluorobenzyl)-2-benzimidazolyl]-4-piperidyl]methylamino]-4(3H)- C<sub>24</sub>H<sub>25</sub>FN<sub>6</sub>O 108612-45-9 antihistaminic

CH<sub>2</sub> H<sub>3</sub> H<sub>N</sub> CH<sub>3</sub> H<sub>N</sub> C

mofezolacum mofezolac

3,4-bis(p-methoxyphenyl)-5-isoxazoleacetic acid C<sub>19</sub>H<sub>17</sub>NO<sub>5</sub> 78967-07-4 analgesic, non-steroidal anti-inflammatory

molgramostimum molgramostim

colony-stimulating factor 2 (human clone pHG $_{25}$  protein molety reduced)  $C_{639}H_{1007}N_{171}O_{196}S_a$  (for protein molety) 99283-10-0 immunomodulator

mosapraminum mosapramine

 $\label{eq:continuous} \begin{array}{ll} (\pm)\text{-1'-[3-(3-chloro-10,11-dihydro-5$$H$-dibenz[$b$,f]azepin-5-yl)propyl]hexahydro-spiro[imidazo[1,2-a]pyridine-3(2$H$),4'-piperidin]-2-one \\ \textbf{C}_{\textbf{2B}}\textbf{H}_{\textbf{3S}}\textbf{CIN}_{\textbf{4}}\textbf{O} & 89419-40-9 & neuroleptic \\ \end{array}$ 

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

nadifloxacinum nadifloxacin ( $\pm$ )-9-fluoro-6,7-dihydro-8-(4-hydroxypiperidino)-5-methyl-1-oxo-1*H*,5*H*-benzo[ij]quinolizine-2-carboxylic acid  $C_{19}H_{21}FN_2O_{\bullet}$  124858-35-1 antibacterial

droparinum calcium roparin calcium

Calcium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-O-sulfo-a-L-idopyranosuronic acid structure at the non-reducing end and a 6-O-sulfo-2,5-anhydro-p-mannitol structure at the reducing end of their chain; the average relative molecular mass is 4000 to 5000; the degree of sulfatation is about 2,1 per disaccharidic unit.

anticoagulant

nafagrelum nafagrel  $(\pm)\text{-}5,6,7,8\text{-tetrahydro-6-(imidazol-1-ylmethyl)-2-naphthoic acid} \\ C_{15}H_{16}N_2O_2 \qquad 97901\text{-}21\text{-}8 \qquad \qquad thromboxane} \quad A_2 \ synthetase \ inhibitor$ 

nefiracetamum nefiracetam 2-oxo-1-pyrrolidineaceto-2',6'-xylidide C<sub>14</sub>H<sub>19</sub>N<sub>2</sub>O<sub>2</sub> 77191-36-7

nootropic agent

nestifyllinum пestifylline

7-(1,3-dithiolan-2-ylmethyl)theophylline  $C_{11}H_{14}N_4O_2S_2$  116763-36-1 and

antiasthmatic

ocaperidonum ocaperidone

3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)piperidino]ethyl]-2,9-dimethyl-4H-pyrido[1,2-a]pyrimidin-4-one  $C_{24}H_{25}FN_4O_2$  129029-23-8 antipsychotic

oxiglutationum oxiglutatione

N,N'-[dithiobis[ $\{R\}$ -1-[(carboxymethyl)carbamoyl]ethylene]]di-L-glutamine  $C_{20}H_{32}N_6O_{12}S_2$  27025-41-8

palonidipinum palonidipine

 $(\pm)\text{-}3\text{-}(benzylmethylamino)\text{-}2,2\text{-}dimethylpropyl}$  methyl 4-(2-fluoro-5-nitrophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate  $C_{29}H_{34}FN_3O_{\text{S}}$  96515-73-0 calcium antagonist

panipenemum panipenem (+)-(5R,6S)-3- $[\{(S)$ -1-acetimidoyl-3-pyrrolidinyl]thio]-6-[(R)-1-hydroxyethyl]-7-oxo-1-azabicyclo[3,2,0]hept-2-ene-2-carboxylic acid  $C_{15}H_{21}N_3O_4S$  87726-17-8 antibiotic

parnaparinum natrium parnaparin sodium Sodium salt of depolymerized heparin obtained by hydrogen peroxide and cupric acetate degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-O-sulfo-a-t-idopyranosuronic acid structure at the non-reducing end and a 2-N,6-O-disulfo-o-glucosamine structure at the reducing end of their chain; the average relative molecular mass is between 4000 and 6000 (5000  $\pm$  10 per cent), the degree of sulfatation is 2,15 ( $\pm$  10 per cent) per disaccharidic unit. anticoagulant

**)** -

pegaspargasum pegaspargase asparaginase, reaction product with succinic anhydride, esters with polyethylene glycol monomethyl ether

130167-69-0 antineoplastic

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

picumeterolum picumeterol (-)-(R)-4-amino-3,5-dichloro- $\alpha$ -[[[6-[2-(2-pyridyl)ethoxy]hexyl]amino]-methyl]benzyl alcohol C<sub>21</sub>H<sub>29</sub>Cl<sub>2</sub>N<sub>3</sub>O<sub>2</sub> 130641-36-0  $\beta_2$ -adrenoreceptor agonist

) bdomastum pirodomast

4-hydroxy-1-phenyl-3-(1-pyrrolidinyi)-1,8-naphthyridin-2(1H)-one  $C_{1}H_{17}N_3O_2$  108310-20-9 antiallergic

porfimerum natricum porfimer sodium

photofrin II

87806-31-3 photosensitizing agent

prinoxodanum prinoxodan 3,4-dihydro-3-methyl-6-(1,4,5,6-tetrahydro-6-oxo-3-pyridazinyl)-2(1 H)-quinazolinone  $C_{13}H_{14}N_4O_2$  111786-07-3 cardiac stimulant

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

quinotolastum quinotolast

4-oxo-1-phenoxy-*N*-1*H*-tetrazol-5-yl-4*H*-quinolizine-3-carboxamide  $C_{17}H_{12}N_5O_3$  101193-40-2 antiallergic

quinupristinum quinupristin

 $\begin{array}{lll} \textit{N-}[(6R,9S,10R,13S,15aS,22S,24aS)-22-[p-(dimethylamino)benzyl]-6-ethyldocosahydro-10,23-dimethyl-5,8,12,15,17,21,24-heptaoxo-13-phenyl-18-[[(3S)-3-quinuclidinylthio]methyl]-12$H-pyrido[2,1-/][1,4,7,10,13,16]oxapenta-azacyclononadecin-9-yl]-3-hydroxy picolinamide $C_{53}H_{67}N_8O_{10}S$ 120138-50-3 antibacterial $C_{53}H_{67}N_8O_{10}S$ $C_{53}H_{67}N_8O_{10$ 

racementholum racementhol  $(\pm)$ -(1 $R^*$ ,3 $R^*$ ,4 $S^*$ )-menthol C<sub>10</sub>H<sub>20</sub>O 15356-70-4

decongestant, carminative

(**)** (

H<sub>3</sub>C CH CH<sub>3</sub>

regramostimum regramostim

colony-stimulating factor 2 (human clone pCSF-1 protein moiety reduced), glycoform GMC 89-107  $C_{637}H_{1003}N_{171}O_{107}S_8-127757-91-9 \\ immunomodulator$ 

reviparinum natrium reviparin sodium

Sodium salt of depolymerized heparin obtained by nitrous acid degradation of heparin from pork intestinal mucosa; the majority of the components have a 2-O-sulfo-a-L-idopyranosuronic acid structure at the non-reducing end and a 6-O-sulfo-2,5-anhydro-p-mannitol structure at the reducing end of their chain; the average relative molecular mass is 3500 to 4500, 90 per cent of which ranging between 2000 and 8000; the degree of sulfatation is about 2,2 per disaccharidic unit.

anticoagulant

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

ritolukastum ritolukast 1,1,1-trifluoro- $\alpha$ -2-quinolylmethanesulfon-m-anisidide  $C_{17}H_{13}F_3N_2O_3S$  111974-60-8 antiasthmatic

sagandıpinum sagandipine

methyl (5-piperidinomethyl)furfuryl 4-(o-fluorophenyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate  $C_{27}H_{31}FN_2O_5$  126294-30-2 calcium antagonist

semotiadilum semotiadil  $\label{eq:continuous} $$(+)^-(R)^-2-[5-methoxy-2-[3-[methyl]^2-[3,4-(methylenedioxy)phenoxy]ethyl]-amino]propoxy]phenyl]^-4-methyl^2-H^-1,4-benzothiazin^3(4H)^-one $$C_{29}H_{32}N_2O_6S$$ 116476-13-2$$ calcium antagonist$ 



sorivudinum sorivudine (+)-1- $\beta$ -p-arabinofuranosyl-5-[(E)-2-bromovinyl]uraci!  $C_{11}H_{13}BrN_2O_6$  77181-69-2 antiviral

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

sumarotenum sumarotene 1,2,3,4-tetrahydro-1,1.4,4-tetramethyl-6-[(E)- $\alpha$ -methyl-p-(methylsulfonyl)-styryl]naphthalene  $C_{24}H_{30}O_2S$  105687-93-2 dermatological

suplatastum tosilas suplatast tosilate

 $\begin{tabular}{ll} $(\pm)$-[2-[[p-(3-ethoxy-2-hydroxypropoxy]]]$ hold on the property of the$ 

$$H_3C - CH_2 - O - CH_2 - CH_2 - CH_2 - CH_2 - CH_2 - CH_3 - CH_$$

tamsulosinum tamsulosin

(–)-(R)-5-[2-[[2-(o-ethoxyphenoxy)ethyl]amino]propyl]-2-methoxybenzene-sulfonamide  $C_{2o}H_{2e}N_2O_sS$  106133-20-4  $\alpha_1$ -adrenoreceptor antagonist

technetii (<sup>99m</sup>Tc) bicisas technetium (<sup>99m</sup>Tc) bicisate

 $\begin{array}{ll} [\textit{N,N'}\text{-}ethylenedi-L-cysteinato(3-)}]oxo[^{99m}Tc] \ \ technetium(V), \ \ diethyl \ \ ester \\ C_{12}H_{21}N_2O_5S_2^{99m}Tc & 121281-41-2 \\ radiocontrast \ \ medium \end{array}$ 

tematropii metilsulfas tematropium metilsulfate

3a-hydroxy-8-methyl-1aH.5aH-tropanium methyl sulfate (salt),  $(\pm)$ -ethyl hydrogen phenylmalonate  $C_{21}H_{31}NO_{6}S$  113932-41-5 anticholinergic

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

temocaprilum temocapril  $\begin{array}{lll} (+)-(2\,S,6\,R)-6-[[(1\,S)-1-carboxy-3-phenylpropyl]amıno]tetrahydro-5-oxo-2-\\ (2-thienyl)-1,4-thiazepine-4(5\,H)-acetic acid, 6-ethyl ester\\ C_{23}H_{24}N_2O_5S_2 & 111902-57-9 & angiotensin-converting enzyme inhibitor \end{array}$ 

1)

terikalantum terikalant (-)-1-[2-(4-chromanyl)ethyl]-4-(3,4-dimethoxyphenyl)piperidine C<sub>24</sub>H<sub>31</sub>NO<sub>3</sub> potassic channel blocker

tibeglisenum tibeglisene  $(\pm)$ -5-(p-chlorophenyl)-2-(p-tolylsulfonyl)-4-pentynoic acid  $C_{1a}H_{1s}ClO_4S$  129731-11-9 antidiabetic

,

tulopafantum tulopafant (+)-3'-benzoyl-3-(3-pyridyl)-1H.3H-pyrrolo[1,2-c]thiazole-7-carboxanilide  $C_{25}H_{19}N_3O_2S$  116289-53-3 platelet-activating factor antagonist

vamicamidum vamicamide  $\begin{array}{lll} (\pm)\text{-}(R'')\text{-}a\text{-}[(R'')\text{-}2\text{-}(dimethylamino)propyl}]\text{-}a\text{-}phenyl\text{-}2\text{-}pyridineacetamide} \\ C_{18}H_{23}N_3O & 132373\text{-}81\text{-}0 & anticholinergic, spasmolytic \end{array}$ 

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

vinfosiltinum vinfosiltine

[23(S)]-4-deacetyl-3-de(methoxycarbonyl)-3-[(2-methyl-1-phosphonopropyl)carbamoyl]vincaleukoblastine, diethyl ester  $C_{s1}H_{72}N_sO_{10}P$  123286-00-0 antineoplastic

ì

vinleucinolum vinleucinol

 $\begin{array}{ll} [23(1S,2S)]\text{-}4\text{-}deacetyl-3-[(1\text{-}carboxy\text{-}2\text{-}methylbutyl)carbamoyl]}\text{-}3\text{-}(demethoxycarbonyl)vincaleukoblastine, ethyl ester}\\ C_{s_1}\text{H}_{es}\text{N}_{s}\text{O}_{s} & antineoplastic \end{array}$ 

vorozolum vorozole

(+)-6-( $\rho$ -chloro- $\alpha$ -1H-1,2,4-triazof-1-ylbenzy!)-1-methyl-1H-benzotriazole C<sub>1s</sub>H<sub>13</sub>ClN<sub>s</sub> 129731-10-8 antineoplastic

zabicıprilatum zabiciprilat

(S)-2-[(S)-N-[(S)-1-carboxy-3-phenylpropyl]alanyl]-2-azabicyclo[2.2,2]octane-3-carboxylic acid  $C_{21}H_{28}N_2O_5$  90103-92-7 antihypertensive

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

zalospironum zalospirone  $(1R^*,2R^*,5S^*,6S^*,7S^*,8R^*)-N-\{4-[4-(2-pyrimidinyi\}-1-piperazinyi]$ butyl]-tricyclo[4 2 2.0².5]deca-3,9-diene-7,8-dicarboximide  $C_{24}H_{29}N_5O_2$  114298-18-9 anxiolytic

. itoprofenum itoprofen ( $\pm$ )-10,11-dihydro- $\alpha$ -methyl-10-oxodibenzo[b,f]thiepɪn-2-acetic acid C $_{17}$ H $_{14}$ O $_3$ S 89482-00-8 analgesic, nonsteroidal anti-inflammatory

zatosetronum zatosetron 5-chloro-2,3-dıhydro-2,2-dımethyl-*N*-1 $\alpha$ *H*,5 $\alpha$ *H*-tropan-3 $\alpha$ -yl-7-benzofuran-carboxamide  $C_{19}H_{25}ClN_2O_2$  123482-22-4 antimigraine

制) zenarestatum zenarestat

3-(4-bromo-2-fluorobenzyl)-7-chloro-3,4-dihydro-2,4-dioxo-1(2H)-quinazo-lineacetic acid  $C_{17}H_{11}BrClFN_2O_4$  112733-06-9 aldose reductase inhibitor

zopolrestatum zopolrestat 3,4-dihydro-4-oxo-3-[[5-(trifluoromethyl)-2-benzothiazolyl]methyl]-1-phthalazıneacetic acid  $C_{19}H_{12}F_3N_3O_3S$  110703-94-1 aldose reductase inhibitor

# 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 non-proprietary names.

acistras acistrate

etabonas etabonate

pivetilum pivetit

triflutas triflutate

## AMENDMENTS.

Chronicle of the World Health Organization, Vol. 7, No. 10, 1953

## Proposed International Nonproprietary Names (Prop. INN): List 1

p 118 polyvidonum

polyvidone

replace the chemical name by the following 1-vinyl-2-pyrrolidinone polymer, linear

WHO Chronicle, Vol. 24, No. 9, 1970

# Poposed International Nonproprietary Names (Prop. INN): List 24

p. 433 fendizoatum fendizoate replace the chemical name, the CAS registry number andt the graphic formula by the following:

2-[(6-hydroxybiphenyl-3-yl)carbonyl]benzoate

84627-04-3

C000-

Supplement to WHO Chronicle, Vol. 34, No. 9, 1980

## Proposed International Nonproprietary Names (Prop. INN); List 44

5

loprazolamum loprazolam replace the chemical name and the CAS registry number by the following: (Z)-6-( $\phi$ -chlorophenyl)-2,4-dihydro-2-[(4-methyl-1-piperazinyl)methylene]-

8-nitro-1*H*-imidazo[1,2-*a*][1,4]benzodiazepin-1-one 70111-54-5

Supplement to WHO Chronicle, Vol. 38, No. 4, 1984

## Proposed International Nonproprietary Names (Prop. INN); List 52

p. 9 enoxaparinum enoxaparin delete the whole entry

insert enoxa

enoxaparinum natrium enoxaparin sodium ınsert

Sodium salt of depolymerized heparin obtained by alcaline degradation of heparin benzyl ester from pork intestinal mucosa; the majority of the components present a 2-O-sulfo-4-enepyranosuronic acid structure at the non-reducing end and a 2-N,6-O-disulfo-o-glucosamine structure at the reducing end of their chain; the average relative molecular mass is about 4500, ranging between 3500 and 5500, the degree of sulfatation is about 2 per disaccharidic unit.

anticoagulant

## Supplement to WHO Chronicle Vol. 40, No. 1, 1986

# Proposed International Nonproprietary Names (Prop. INN): List 55

p. 17 efrotomycinum efrotomycin

replace the chemical name, and the graphic formula by the following:

an antibiotic produced by Streptomyces lactamdurans

efrotomycin  $\dot{A}_{\tau}$  or

(aS,2R,3R,4R,6S)-4-[[6-deoxy-4-O-(6-deoxy-2,4-di-O-methyl-a-L-manno-pyranosyl)-3-O-methyl- $\beta$ -D-allopyranosyl]oxy]-N-[(2E,4E,6S,7R)-7-[(2S,3S,-4R,5R)-5-[(1E,3E,5E)-6-(1,2-dihydro-4-hydroxy-1-methyl-2-oxonicotinoyl)-1,3,5-heptatrienyl]tetrahydro-3,4-dihydroxy-2-furyl]-6-methoxy-5-methyl-2,4-octadienyl]-a-ethyltetrahydro-2,3-dihydroxy-5,5-dimethyl-6-[(1E,3Z)-1,3-pentadienyl]-2H-pyran-2-acetamide

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

# Proposed International Nonproprietary Names (Prop. INN): List 58

p. 182 delete

levdropropizinum levdropropizine insert

levodropropizinum levodropropizine

WHO Drug Information, Vol. 2, No. 4, 1988

# Proposed International Nonproprietary Names (Prop. INN): List 60

p. 2 acemannanum acemannan delete the graphic formula and replace the description by the following: Acemannan is a highly acetylated, polydispersed, linear mannan obtained from the mucilage of *Aloe barbadensis*, Miller (aloe vera).

WHO Drug Information, Vol. 3, No. 2, 1989

# Proposed International Nonproprietary Names (Prop. INN): List 61

p. 14 moxidectinum moxidectin

replace the chemical name by the following:

(6R,25S)-5-O-demethyl-28-deoxy-25-[(E)-1,3-dimethyl-1-butenyl]-6,28-epoxy-23-oxomilbemycin B 23-(E)-(O-methyloxime)

p. 17 delete

inser

taludipinum taludipine teludipinum teludipine

28

## WHO Drug Information, Vol. 3, No. 4, 1989

## Proposed International Nonproprietary Names (Prop. INN): List 62

p. 8 fosquidonum fosquidone

Ξ,

replace the chemical name by the following: benzyl  $(\pm)$ -5,8,13,14-tetrahydro-14-methyl-8,13-dioxobenz[5,6]isoindolo-[2,1-b]isoquinolin-9-yl hydrogen phosphate

WHO Drug Information, Vol. 4, No. 2, 1990

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

doramectinum replace the chemical name by the following: doramectin 25-cyclohexyl-5-O-demethyl-25-de(1-methylpropyl)avermectin A<sub>1</sub> or (2aE,4E,8E)-5'S,6S,6'R,7S,11R,13S,15S,17aR,20R,20aR,20bS)-6'-cyclohexyl-5',6,6',7,10,11,14,15,17a,20,20a,20b-dodecahydro-20,20b-dihydroxy-5',6,8,19tetramethyl-17-oxospiro[11,15-methano-2H,13H,17H-furo-[4,3,2-pa][2,6]benzodioxacyclooctadecin-13,2'-[2H]pyran]-7-yl 2,6-dideoxy-4-O-(2,6-dideoxy-3-O-methyl-α-L-arabino-hexopyranosyl)-3-O-methyl-α-Larabino-hexopyranoside p. 6 replace the chemical name by the following: giracodazolum giracodazole (aS)-2-amino-a-f(1S)-2-amino-1-chloroethyllimidazole-4-methanol nemazolinum insert the following CAS registry number. p 8 nemazoline 130759-56-7 neticonazolum replace the CAS registry number by the following: neticonazole 130726-68-0 insert the following CAS registry number. p. 14 tenosiprolum tenosiprol 129336-81-8

p. 16 zilascorbum (²H) zilascorb (²H) reprace the unemical name by the following: 5,6-O-[(RS)-benzylidene-a-d]-L-ascorbic acid

## Procedure and Guiding Principles

The text of the *Procedures for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances and General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances* will from now on be reproduced in uneven numbers of proposed INN lists only.