

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,¹ notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Nonproprietary Names.

Comments on, or formal objections to, the proposed names may be forwarded by any person to the Pharmaceuticals unit of the World Health Organization within four months of the date of their publication in the *WHO Chronicle*, e.g. for List 46 Prop. INN not later than 31 March 1982.

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.

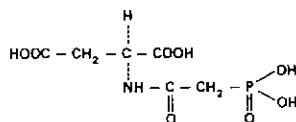
Proposed International Nonproprietary Names (Prop. INN): List 46²

Proposed International
 Nonproprietary Name (Latin, English)

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

acidum sparfosicum
 sparfosic acid

N-(phosphonoacetyl)-*L*-aspartic acid
 C₈H₁₀NO₈P 51321-79-0



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 on page 16 of this Supplement (Annex 2). All names from Lists 1-37 of Proposed International Nonproprietary Names, together with a molecular formula index, will be found in: *International Nonproprietary Names for Pharmaceutical Substances. Cumulative list No. 5, 1977*, World Health Organization, Geneva, 1977 (ISBN 92 4 056011 4) (price: Sw. fr. 48.-). This publication consists, in the main, of a computer printout which groups together all the proposed and recommended international nonproprietary names (INN)-in Latin, English, French, Russian, and Spanish-published up to March 1977. The printout also indicates in which of the 37 individual lists of proposed names and 18 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 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. 22.

² Other lists of proposed international nonproprietary names can be found in *Chron. Wld Hlth Org.*, 1953, 7, 299; 1954, 8, 216, 313; 1956, 10, 28; 1957, 11, 231; 1958, 12, 102; *WHO Chronicle*, 1959, 13, 105, 152; 1960, 14, 168, 244, 1961, 15, 314; 1962, 16, 385; 1963, 17, 389; 1964, 18, 433; 1965, 19, 446; 1966, 20, 216; 1967, 21, 70, 478; 1968, 22, 112, 407; 1969, 23, 183, 418; 1970, 24,

119, 413; 1971, 25, 123, 415; 1972, 26, 121, 414; 1973, 27, 120, 330, 1974, 28, 133, supplements to *WHO Chronicle*, 1974, Vol. 28, No. 9; 1975, Vol. 29, No. 3, No. 9; 1976, Vol. 30, No. 3, No. 9; 1977, Vol. 31, No. 3, No. 9; 1978, Vol. 32, No. 3, No. 9; 1979, Vol. 33, No. 3, No. 9; 1980, Vol. 34, No. 3, No. 9; 1981, Vol. 35, No. 3.

Lists of recommended international nonproprietary names were published

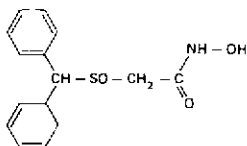
in *Chron. Wld Hlth Org.*, 1955, 9, 185; *WHO Chronicle*, 1959, 13, 106, 463; 1962, 16, 101; 1965, 19, 165, 206, 249; 1966, 20, 421, 1967, 21, 538; 1968, 22, 463; 1969, 23, 490, 1970, 24, 526; 1971, 25, 476, 1972, 26, 476; 1973, 27, 453; supplements to *WHO Chronicle*, 1974, Vol. 28, No. 10; 1975, Vol. 29, No. 10; 1976, Vol. 30, No. 10; 1977, Vol. 31, No. 10; 1978, Vol. 32, No. 10; 1979, Vol. 33, No. 10; 1980, Vol. 34, No. 10.

*Proposed International
Nonproprietary Name (Latin, English)*

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

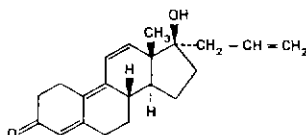
adrafinilum
adrafinil

2-[(diphenylmethyl)sulfinyl]acetohydroxamic acid
 $C_{15}H_{15}NO_3S$ 63547-13-7



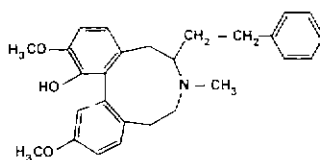
altrenogestum
altrenogest

17 α -allyl-17-hydroxyestra-4,9,11-trien-3-one
 $C_{21}H_{26}O_2$ 850-52-2



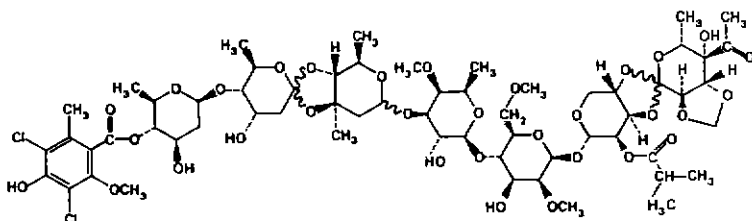
asocainolum
asocainol

(+)-6,7,8,9-tetrahydro-2,12-dimethoxy-7-methyl-6-phenethyl-5H-
dibenz[*d,f*]azonin-1-ol
 $C_{27}H_{31}NO_3$ 77400-65-8



avilamycinum
avilamycin

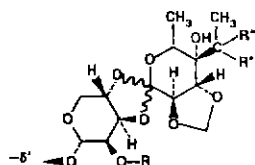
an antibiotic obtained from cultures of *Streptomyces viridochromogenes*, or the same substance produced by any other means; consists mainly of avilamycin A or 4-*C*-acetyl-6-deoxy-2,3-*O*-methylene-*D*-galactopyranosylidene-(1→3-4)-2-*O*-(2-methyl-1-oxopropyl)- α -*L*-lyxopyranosyl *O*-2,6-dideoxy-4-*O*-(3,5-dichloro-4-hydroxy-2-methoxy-6-methylbenzoyl)- β -*D*-arabino-hexopyranosyl-(1→4)-*O*-2,6-dideoxy-*D*-ribo-hexopyranosylidene-(1→3-4)-*O*-2,6-dideoxy-3-*C*-methyl-*D*-arabino-hexopyranosyl-(1→3)-*O*-6-deoxy-4-*O*-methyl- β -*D*-galactopyranosyl-(1→4)-2,6-di-*O*-methyl- β -*D*-mannopyranoside
C₆₁H₈₈Cl₂O₃₂ 11051-71-1



COMPONENT A

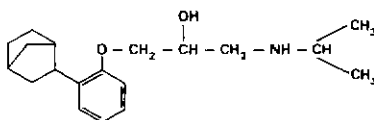
MINOR COMPONENTS

	R	R' + R''
B	-CO-CH ₃	=O
C	-CO-CH(CH ₃) ₂	-H + -OH
D ₁	-H	=O
D ₂	-CO-CH ₃	-H + -OH
E	-H	-H + -OH



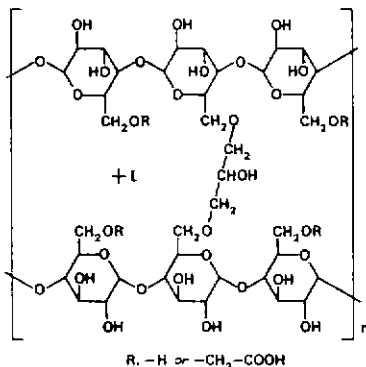
bornaprololum
bornaprolol

1-(isopropylamino)-3-(*o*-2-*exo*-norbornylphenoxy)-2-propanol
C₁₅H₂₃NO₂ 66451-06-7



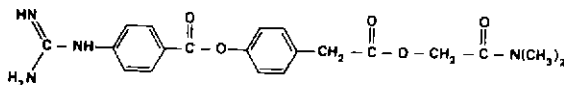
cadexomerum iodum
cadexomer iodine

product of reaction of dextrin with epichlorohydrin coupled with ion-exchange groups and iodine



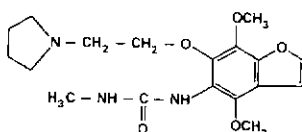
camostatium
camostat

p-guanidinobenzoic acid, ester with (*p*-hydroxyphenyl)acetic acid, ester with
N,N-dimethylglycolamide or *p*-guanidinobenzoic acid, ester with (dimethylcarbamoyl)methyl (*p*-hydroxyphenyl)acetate
 $C_{20}H_{22}N_4O_5$ 59721-28-7



carocainidum
carocainide

1-[4,7-dimethoxy-6-[2-(1-pyrrolidinyloxy)]-5-benzofuranyl]-3-methylurea
 $C_{18}H_{25}N_3O_5$ 66203-00-7

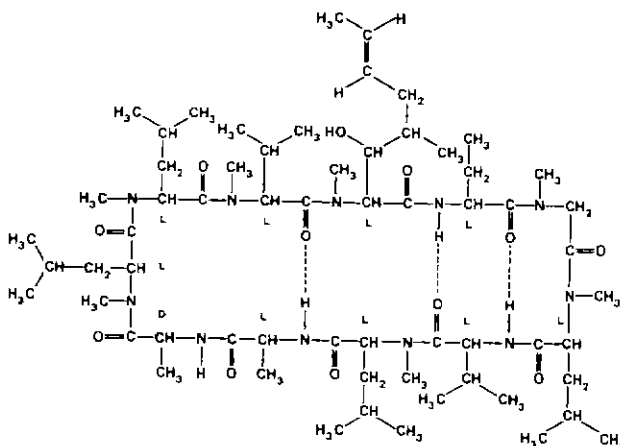


cetrimidum
cetrimide

mixture consisting chiefly of tetradecyltrimethylammonium bromide together
with smaller amounts of dodecyltrimethylammonium bromide and hexadecyltri-
methylammonium bromide

ciclosporinum
ciclosporin

cyclosporin A or cyclo[[*(E)*-(2*S*,3*R*,4*R*)-3-hydroxy-4-methyl-2-(methylamino)-6-
octenoyl]-L-2-aminobutyryl-*N*-methylglycyl-*N*-methyl-L-leucyl-L-valyl-*N*-methyl-
L-leucyl-L-alanyl-D-alanyl-*N*-methyl-L-leucyl-*N*-methyl-L-leucyl-*N*-methyl-L-
valyl]]
 $C_{62}H_{111}N_{11}O_{12}$ 59865-13-3

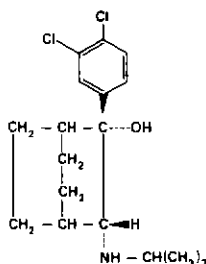


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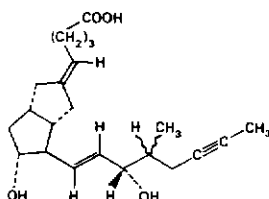
cilobaminum
cilobamine

cis-2-(3,4-dichlorophenyl)-3-(isopropylamino)bicyclo[2.2.2]octan-2-ol
C₁₇H₂₃Cl₂NO 69429-84-1



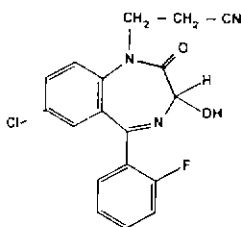
ciloprostum
ciloprost

(*E*)-(3*aS*,4*R*,5*R*,6*aS*)-hexahydro-5-hydroxy-4-[(*E*)-(3*S*,4*RS*)-3-hydroxy-4-methyl-1-octen-6-ynyl]- $\Delta^2(1H)$,8-pentalenevaleric acid
C₂₂H₃₂O₄ 73873-87-7



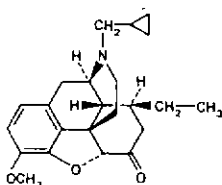
cinolazepanum
cinolazepam

7-chloro-5-(*o*-fluorophenyl)-2,3-dihydro-3-hydroxy-2-oxo-1*H*-1,4-benzodiazepine-1-propionitrile
C₁₈H₁₃ClFN₂O₂ 75696-02-5



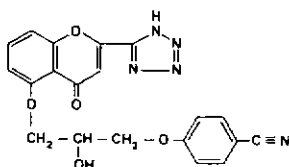
conorfonum
conorfone

17-(cyclopropylmethyl)-4,5 α -epoxy-8 β -ethyl-3-methoxymorphinan-6-one
C₂₃H₂₉NO₃ 72060-05-0



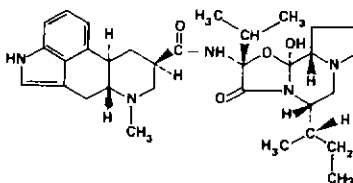
cromitrium
cromitrile

(±)-*p*-[2-hydroxy-3-[[4-oxo-2-(1*H*-tetrazol-5-yl)-4*H*-1-benzopyran-5-yl]oxy]pro-
poxy]benzonitrile
 $C_{20}H_{15}N_5O_5$ 53736-51-9



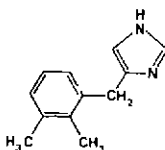
desocriptinum
desocriptine

6'-deoxo-9,10 α -dihydro- β -ergocryptine
 $C_{32}H_{45}N_5O_4$ 66759-48-6



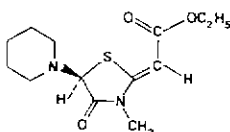
detomidinum
detomidine

4-{2,3-dimethylbenzyl}imidazole
 $C_{12}H_{14}N_2$ 76631-46-4



dexetozolinum
dexetozoline

(+)-ethyl (*Z*)-(*S*)-3-methyl-4-oxo-5-piperidino- $\Delta^{2,\alpha}$ -thiazolidineacetate
 $C_{13}H_{20}N_2O_5S$ 77519-25-6

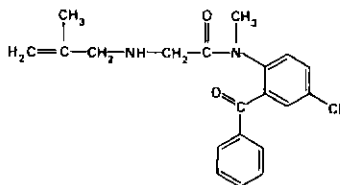


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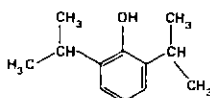
dinazafonum
dinazafone

2'-benzoyl-4'-chloro-N-methyl-2-[(2-methylallyl)amino]acetanilide
 $C_{20}H_{21}ClN_2O_2$ 71119-12-5



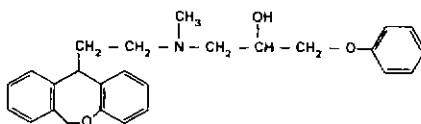
disoprofolum
disoprofol

2,6-diisopropylphenol
 $C_{12}H_{18}O$ 2078-54-8



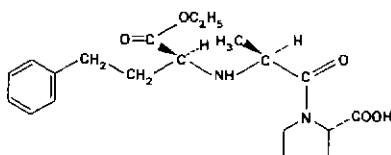
doxaminolum
doxaminol

6,11-dihydro-N-(2-hydroxy-3-phenoxypropyl)-N-methyldibenz[b,e]oxepin-11-ethylamine
 $C_{28}H_{29}NO_3$ 55286-56-1



enalaprilum
enalapril

1-[N-[(S)-1-carboxy-3-phenylpropyl]-L-alanyl]-L-proline 1'-ethyl ester
 $C_{20}H_{28}N_2O_5$ 75847-73-3

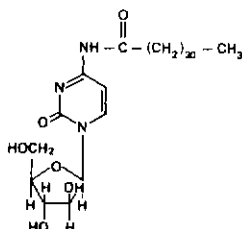


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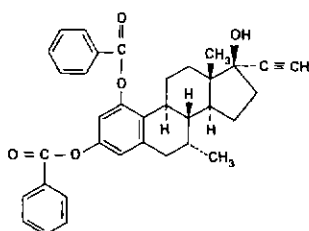
enocitabinum
enocitabine

N-(1- β -D-arabinofuranosyl-1,2-dihydro-2-oxo-4-pyrimidinyl)docosanamide
C₃₁H₅₅N₃O₆ 55726-47-1



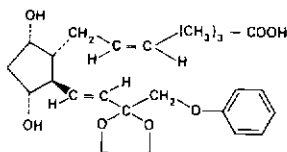
eptamestrolum
eptamestrol

7 α -methyl-19-nor-17 α -pregna-1,3,5(10)-trien-20-yne-1,3,17-triol 1,3-dibenzoate
C₃₅H₃₄O₅ 73764-72-4



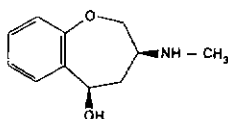
etiprostonom
etiproston

(*Z*)-7-[(1*R*,2*R*,3*R*,5*S*)-3,5-dihydroxy-2-[(*E*)-2-[2-(phenoxy)methyl]-1,3-dioxolan-2-yl]vinyl]cyclopentyl]-5-heptenoic acid
C₂₄H₃₂O₇ 59619-81-7



exepanolum
exepanol

($\pm$)-*cis*-2,3,4,5-tetrahydro-3-(methylamino)-1-benzoxepin-5-ol
C₁₁H₁₅NO₂ 77416-65-0

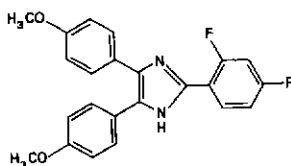


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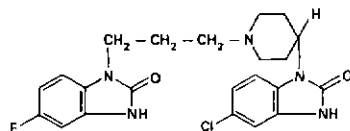
fenflurizolum
fenflurizole

2-(2,4-difluorophenyl)-4,5-bis(*p*-methoxyphenyl)imidazole
C₂₃H₁₈F₂N₂O₂ 73445-46-2



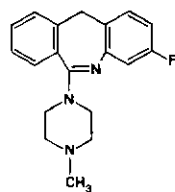
meridonum
trimeridone

5-chloro-1-[1-[3-(5-fluoro-2-oxo-1-benzimidazolyl)propyl]-4-piperidyl]-2-benzimidazolinone
C₂₂H₂₃ClFN₅O₂ 75444-64-3



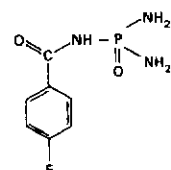
fluperlapinum
fluperlapine

3-fluoro-6-(4-methyl-1-piperazinyl)morphanthridine
C₁₉H₂₀FN₃ 67121-76-0



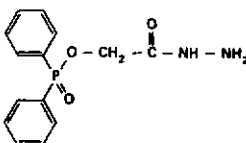
fluorofamidum
fluorofamide

N-(diaminophosphinyl)-*p*-fluorobenzamide
C₇H₉FN₃O₂P 70788-28-2



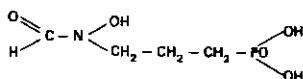
fosenazidum
fosenazide

(diphenylphosphinyl)acetic acid, hydrazide
 $C_{14}H_{15}N_2O_2P$ 16543-10-5



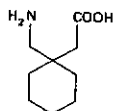
fosmidomycinum
fosmidomycin

[3-(*N*-hydroxyformamido)propyl]phosphonic acid
 $C_4H_{10}NO_5P$ 86508-53-0



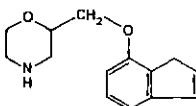
gabapentinum
gabapentin

1-(aminomethyl)cyclohexanecarboxylic acid
 $C_9H_{17}NO_2$ 60142-96-3



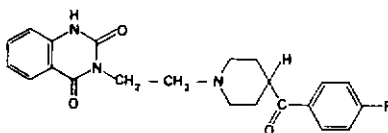
indeloxazinum
indeloxazine

(±)-2-[(inden-7-yloxy)methyl]morpholine
 $C_{14}H_{17}NO_2$ 60929-23-9



ketanserinum
ketanserin

3-[2-[4-(*p*-fluorobenzoyl)piperidino]ethyl]-2,4(1*H*,3*H*)-quinazolin-6(2*H*)-one
 $C_{22}H_{22}FN_3O_3$ 74050-98-9

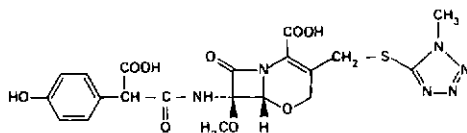


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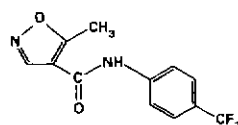
latamoxefum
latamoxef

N-[(6*R*,7*R*)-2-carboxy-7-methoxy-3-[[[1-methyl-1*H*-tetrazol-5-yl]thio]-methyl]-8-oxo-5-oxa-1-azabicyclo[4.2.0]oct-2-en-7-yl]-2-(*p*-hydroxyphenyl)malonic acid
C₂₀H₂₀N₄O₉S 64952-97-2



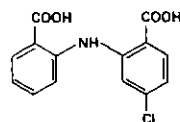
leflunomidum
leflunomide

α,α,α -trifluoro-5-methyl-4-isoxazolecarboxy-*p*-toluidide
C₁₂H₉F₃N₂O₂ 75706-12-6



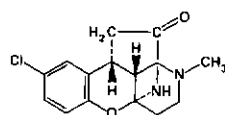
lobenzaritum
lobenzarit

4-chloro-2,2'-iminodibenzoic acid
C₁₄H₁₀ClNO₄ 63329-53-3



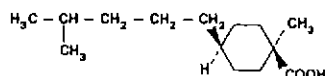
lortalaminum
lortalamine

(4*aR*,10*R*,10*aR*)-8-chloro-1,2,3,4,10,10*a*-hexahydro-2-methyl-4*a*,10-(iminoethano)-4*aH*-[1]benzopyrano[3,2-*c*]pyridin-12-one
C₁₅H₁₇ClN₂O₂ 76612-20-9



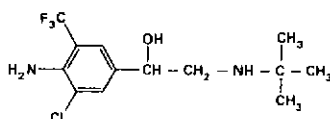
loxanastum
loxanast

cis-4-isohexyl-1-methylcyclohexanecarboxylic acid
C₁₄H₂₈O₂ 69915-62-4



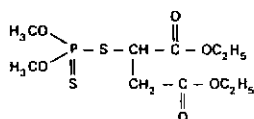
ambuterolum
ambuterol

4-amino- α -[(*tert*-butylamino)methyl]-3-chloro-5-(trifluoromethyl)benzyl alcohol
C₁₃H₁₈ClF₃N₂O 56341-08-3



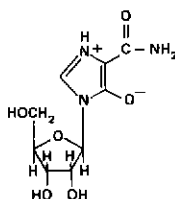
malathionum
malathion

diethyl mercaptosuccinate *S*-ester with *O,O*-dimethyl phosphorodithioate
C₁₀H₁₉O₆PS₂ 121-75-5



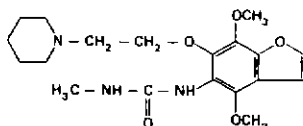
mizoribinum
mizoribine

5-hydroxy-1- β -D-ribofuranosylimidazole-4-carboxamide
C₈H₁₃N₃O₆ 50924-49-7



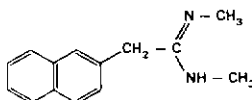
murocainidum
murocainide

1-[4,7-dimethoxy-6-(2-piperidinoethoxy)-5-benzofuranyl]-3-methylurea
C₁₉H₂₇N₃O₅ 66203-94-9



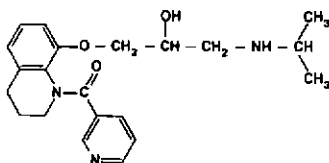
napactadinum
napactadine

N,N'-dimethyl-2-naphthaleneacetamidine
C₁₄H₁₃N₂ 76631-45-3



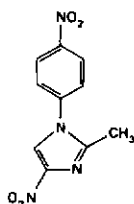
nicainoprolum
nicainoprol

(±)-1,2,3,4-tetrahydro-8-[2-hydroxy-3-(isopropylamino)propoxy]-1-nicotinoyl-
quinoline
 $C_{27}H_{27}N_3O_3$ 76252-06-7



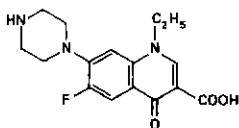
nitrefazolum
nitrefazole

2-methyl-4-nitro-1-(p-nitrophenyl)imidazole
 $C_{10}H_8N_4O_4$ 21721-92-6



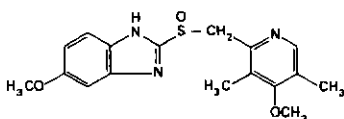
norfloxacinum
norfloxacin

1-ethyl-6-fluoro-1,4-dihydro-4-oxo-7-(1-piperazinyl)-3-quinolinecarboxylic acid
 $C_{18}H_{18}FN_3O_3$ 70458-96-7



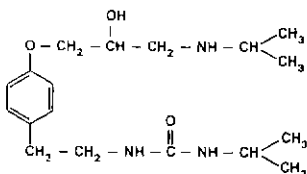
omeprazolum
omeprazole

5-methoxy-2-[[[(4-methoxy-3,5-dimethyl-2-pyridyl)methyl]sulfinyl]benzimidazole
 $C_{17}H_{19}N_3O_5S$ 73590-58-6



pafenololum
pafenolol

(±)-1-[p-[2-hydroxy-3-(isopropylamino)propoxy]phenethyl]-3-isopropylurea
 $C_{18}H_{31}N_3O_3$ 75949-41-0

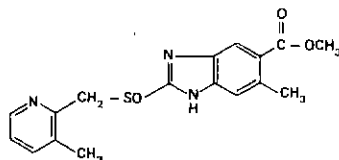


Proposed International
Nonproprietary Name (Latin, English)

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

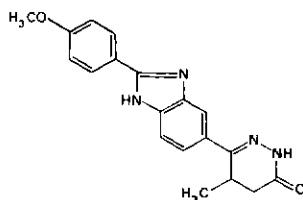
picoprazolum
picoprazole

methyl 6-methyl-2-[[[(3-methyl-2-pyridyl)methyl]sulfinyl]-5-benzimidazolecarboxylate
 $C_{17}H_{17}N_3O_3S$ 78090-11-6



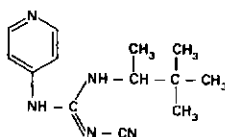
pimobendanum
pimobendan

4,5-dihydro-6-[2-(*p*-methoxyphenyl)-5-benzimidazolyl]-5-methyl-3(2*H*)-pyridazin-2-one
none
 $C_{19}H_{18}N_4O_2$ 74150-27-9



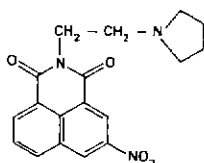
pinacidilum
pinacidil

(±)-2-cyano-1-(4-pyridyl)-3-(1,2,2-trimethylpropyl)guanidine
 $C_{13}H_{19}N_5$ 60560-33-0



pinafidum
pinafide

3-nitro-*N*-[2-(1-pyrrolidinyl)ethyl]naphthalimide
 $C_{18}H_{17}N_3O_4$ 54824-20-3

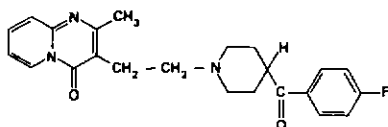


Proposed International
Nonproprietary Name (Latin, English)

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

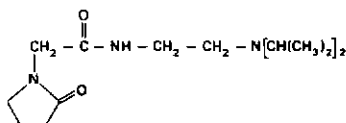
pirenperonium
pirenperone

3-[2-[4-(*p*-fluorobenzoyl)piperidino]ethyl]-2-methyl-4*H*-pyrido[1,2-*a*]pyrimidin-4-one
C₂₃H₂₄FN₃O₂ 75444-65-4



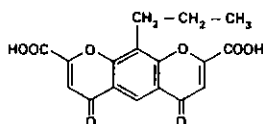
miracetamum
miracetam

N-[2-(diisopropylamino)ethyl]-2-oxo-1-pyrrolidineacetamide
C₁₄H₂₇N₃O₂ 68497-62-1



probicromilum
probicromil

4,6-dioxo-10-propyl-4*H*,6*H*-benzo[1,2-*b*:5,4-*b'*]dipyran-2,8-dicarboxylic acid
C₁₇H₁₂O₈ 58805-38-2

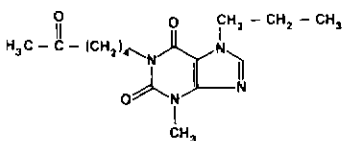


promelasum
promelase

Aspergillus melleus semi-alkaline proteinase

propentofyllinum
propentofylline

3-methyl-1-(5-oxohexyl)-7-propylxanthine
C₁₅H₂₂N₄O₃ 55242-55-2

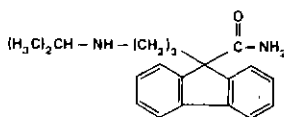


Proposed International
Nonproprietary Name (Latin, English)

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

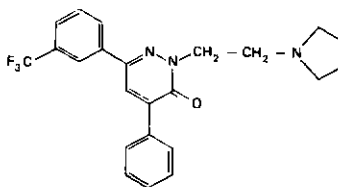
ricainidum
ricainide

9-[3-(isopropylamino)propyl]fluorene-9-carboxamide
 $C_{20}H_{24}N_2O$ 74517-78-5



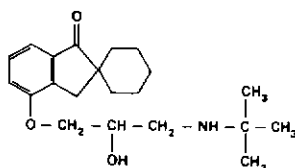
ridaflonum
ridaflone

4-phenyl-2-[2-(1-pyrrolidinyl)ethyl]-6-(α,α,α -trifluoro-*m*-tolyl)-3(2*H*)-pyridazin-
none
 $C_{23}H_{22}F_3N_3O$ 23419-43-4



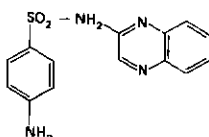
spirendololum
spirendolol

($\pm$)-4'-[3-(*tert*-butylamino)-2-hydroxypropoxy]spiro[cyclohexane-1,2'-indan]-1'-
one
 $C_{21}H_{31}NO_3$ 65429-87-0



sulfaquinoxalimum
sulfaquinoxaline

*N*1-2-quinoxalinylsulfanilamide
 $C_{14}H_{12}N_4O_2S$ 59-40-5

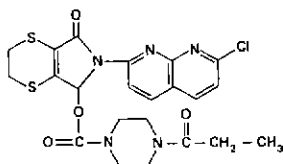


Proposed International
Nonproprietary Name (Latin, English)

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

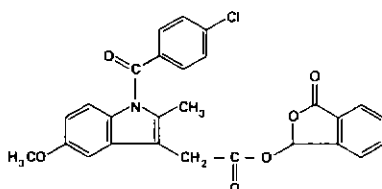
suproclonum
suproclone

4-propionyl-1-piperazinecarboxylic acid, ester with (±)-6-(7-chloro-1,8-naphthyridin-2-yl)-2,3,6,7-tetrahydro-7-hydroxy-5H-p-dithiino[2,3-c]pyrrol-5-one
C₂₂H₂₂ClN₅O₄S₂ 77590-92-2



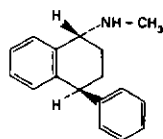
metacinum
talmetacin

(±)-1-(p-chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid, ester with 3-hydroxyphthalide
C₂₇H₂₀ClNO₆ 67489-39-8



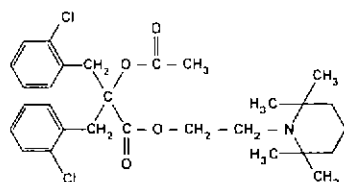
tametralinum
tametraline

(1R,4S)-1,2,3,4-tetrahydro-N-methyl-4-phenyl-1-naphthylamine
C₁₇H₁₉N 52795-02-5



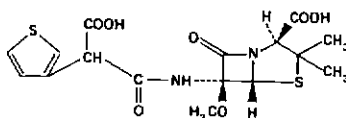
tefenperatum
tefenperate

2-(2,2,6,6-tetramethylpiperidino)ethyl o-chloro-α-(o-chlorobenzyl)-α-hydroxy-hydrocinnamate acetate (ester)
C₂₈H₃₇Cl₂NO₄ 77342-26-8



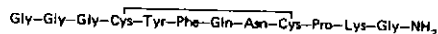
temocillinum
temocillin

N-[(2*S*,5*R*,6*S*)-2-carboxy-6-methoxy-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]hept-6-yl]-3-thiophenemalonamic acid
C₁₆H₁₈N₂O₇S₂ 66148-78-5



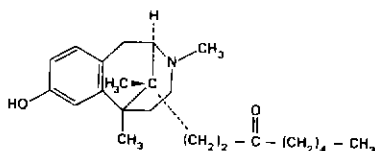
terlipressinum
terlipressin

N-[*N*-(*N*-glycylglycyl)glycyl]-8-L-lysinevasopressin
C₅₂H₇₄N₁₆O₁₅S₂ 14636-12-5



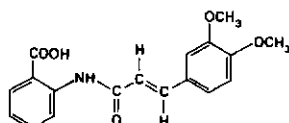
tonazocinum
tonazocine

(±)-1-[(2*R**,6*S**,11*S**)-1,2,3,4,5,6-hexahydro-8-hydroxy-3,6,11-trimethyl-2,6-methano-3-benzazocin-11-yl]-3-octanone
C₂₃H₃₅NO₂ 71461-18-2



tranilastum
tranilast

N-(3,4-dimethoxycinnamoyl)anthranilic acid
C₁₈H₁₇NO₅ 53902-12-8

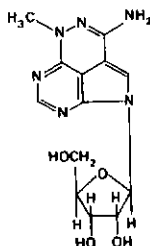


Proposed International
Nonproprietary Name (Latin, English)

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

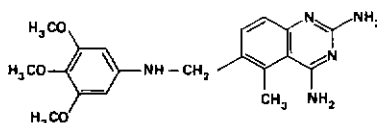
tricitribinum
tricitribine

3-amino-1,5-dihydro-5-methyl-1- β -D-ribofuranosyl-1,4,5,6,8-pentaazaacenaph-
thylene
 $C_{13}H_{16}N_6O_4$ 35943-35-2



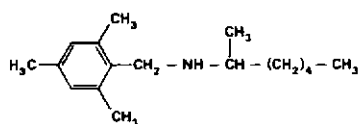
trimetrexatum
trimetrexate

2,4-diamino-5-methyl-6-[(3,4,5-trimethoxyanilino)methyl]quinazoline
 $C_{19}H_{23}N_5O_3$ 52128-35-5



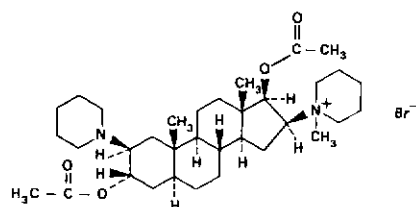
trimexilinum
trimexiline

($\pm$)-2,4,6-trimethyl-N-(1-methylhexyl)benzylamina
 $C_{17}H_{29}N$ 58757-61-2



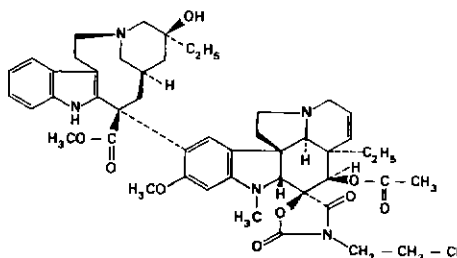
vecuronii bromidum
vecuronium bromide

1-(3 α ,17 β -dihydroxy-2 β -piperidino-5 α -androstan-16 β -yl)-1-methylpiperidinium
bromide diacetate (ester)
 $C_{34}H_{57}BrN_2O_4$ 50700-72-6



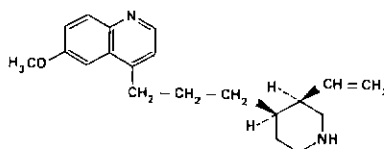
vinzolidinum
vinzolidine

methyl (3*R*,5*S*,7*R*,9*S*)-9-[3'-(2-chloroethyl)-6,7-didehydro-4*β*-hydroxy-16-methoxy-1-methyl-2',4'-dioxo-2*β*,3*β*,5*α*,12*β*,19*α*-spiro[aspidospermidine-3,5'-oxazolidin]-15-yl]-5-ethyl-1,4,5,6,7,8,9,10-octahydro-5-hydroxy-2*H*-3,7-methanoazacycloundecino[5.4-*b*]indole-9-carboxylate 4'-acetate (ester)
C₄₈H₅₈ClN₅O₉ 67699-40-5



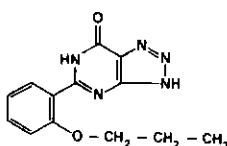
viqualinum
viqualine

6-methoxy-4-[3-[(3*R*,4*R*)-3-vinyl-4-piperidyl]propyl]quinoline
C₂₀H₂₆N₂O 72714-74-0



zaprinastum
zaprinast

3,6-dihydro-5-(*o*-propoxyphenyl)-7*H*-*v*-triazolo[4,5-*d*]pyrimidin-7-one
C₁₃H₁₃N₅O₂ 37762-06-4



Names for Radicals and Groups

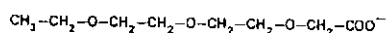
Some substances for which a proposed international nonproprietary name has been established may be used in the form of salts or esters. The radicals or groups involved may be of com-

plex composition and it is then inconvenient to refer to them in systematic chemical nomenclature. Consequently, shorter nonproprietary names for some radicals and groups have been

devised or selected, and they are suggested for use with the proposed international nonproprietary names.

troxundate

[2-(2-ethoxyethoxy)ethoxy]acetate



AMENDMENTS TO PREVIOUS LISTS

Supplement to Vol. 31, No. 3

International Nonproprietary Names (Prop. INN): List 37

p. 14 procatерolum
 procatерol

Precede chemical name by (±)-erythro- and replace CAS reg. no. by 72332-33-3

Supplement to Vol. 33, No. 9

International Nonproprietary Names (Prop. INN): List 42

p. 19 *delete*

metuclozepamum
metuclozepam

insert

metaclozepamum
metaclozepam

Supplement to Vol. 34, No. 3

International Nonproprietary Names (Prop. INN): List 43

p. 15 somatostatinum
 somatostatin

Replace graphic formula by the following:

Ala-Gly-Cys-Lys-Asn-Phe-Phe-Trp-Lys-Thr-Phe-Thr-Ser-Cys

Supplement to Vol. 34, No. 9

International Nonproprietary Names (Prop. INN): List 44

p. 14 *delete*

iprazonium
iprazone

insert

isoprazonium
isoprazone

Supplement to Vol. 35, No. 3

International Nonproprietary Names (Prop. INN): List 45

p. 13 *delete*

tiofacicum
tiofacic

insert

steproninum
stepronin

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.

A. Such notice shall be given by publication in the *Chronicle of the World Health Organization*¹ and by letter to Member States and to national pharmacopoeia commissions or other bodies designated by Member States

- (i) Notice may also be sent to specific persons known to be concerned with a name under consideration.

B. Such notice shall:

- (i) set forth the name under consideration;
- (ii) identify the person who submitted a proposal for naming the substance, if so requested by such person;
- (iii) identify the substance for which a name is being considered;
- (iv) set forth the time within which comments and objections will be received and the person and place to whom they should be directed;
- (v) state the authority under which the World Health Organization is acting and refer to these rules of procedure.

C. In forwarding the notice, the Director-General of the World Health Organization shall request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the proposed name during the period it is under consideration by the World Health Organization.

4. Comments on the proposed name may be forwarded by any person to the World Health Organization within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization*.¹

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*.¹

A. Such objection shall:

- (i) identify the person objecting;
- (ii) state his interest in the name,
- (iii) set forth the reasons for his objection to the name proposed.

6. Where there is a formal objection under article 5, the World Health Organization may either reconsider the proposed name or use its good offices to attempt to obtain withdrawal of the objection. Without prejudice to the consideration by the World Health Organization of a substitute name or names, a name shall not be selected by the World Health Organization as a recommended international nonproprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.

7. Where no objection has been filed under article 5, or all objections previously filed have been withdrawn, the Director-General of the World Health Organization shall give notice in accordance with subsection A of article 3 that the name has been selected by the World Health Organization as a recommended international nonproprietary name.

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

A. request that it be recognized as the nonproprietary name for the substance; and

B. request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the name, including prohibiting registration of the name as a trade-mark or trade-name.

* Text adopted by the Executive Board of WHO in resolution EB15.R7 (*Off. Rec. Wld Hlth Org.* 1955, 60, 3) and amended by the Board in resolution EB43.R9 (*Off. Rec. Wld Hlth Org.* 1969, 10)

¹ The title of this publication was changed to *WHO Chronicle* in January 1959

GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES

1. 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. "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, "f" 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.

8. 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 stem from the following list. The stem 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.

Latin	English	French
-actidum	-actide	-actide
-andr	-andr	-andr
-arolum	-arol	-arol
-azepamum	-azepam	-azepam
-bol	-bol	-bol
-buzonium	-buzone	-buzone
-caium	-caine	-caine
-cef-	-cef-	-cef-
-cillinum	-cillin	-cilline
-cort	-cort	-cort
-cyclinum	-cycline	-cycline
-estr	-estr	-estr
-fibratum	-fibrate	-fibrate
-forminum	-formin	-formine
-gest	-gest	-gest
-gli-	-gli-	-gli-
-io-	-io-	-io-
-ium	-ium	-ium
-metacinum	-metacin	-métacine
-mycinum	-mycin	-mycine
-nidazolum	-nidazole	-nidazole
-ololum	-olol	-olol
-onidum	-onide	-onide
-orexum	-orex	-orex
-praminum	-pramine	-pramine
-profenum	-profen	-profène
-prost	-prost	-prost
-relinum	-relin	-réline
-sulfa-	-sulfa-	-sulfa-
-terolum	-terol	-terol
-tizidum	-tizide	-tizide
-verinum	-verine	-vérine

synthetic polypeptides with a corticotrophin-like action
steroids, androgens
anticoagulants of the dicoumarol group
substances of the diazepam group
steroids, anabolic
anti-inflammatory analgesics of the phenylbutazone group
local anaesthetics
antibiotics, derivatives of cephalosporanic acid
antibiotics, derivatives of 6-aminopenicillanic 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 acetal group
anorexigenic agents, phenethylamine derivatives
substances of the imipramine group
anti-inflammatory substances of the ibuprofen group
prostaglandins
hypophyseal hormone release-stimulating peptides
sulfonamides, anti-infective
bronchodilators, phenethylamine derivatives
diuretics of the chlorothiazide group
spasmolytics with a papaverine-like action

Annex 2

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

In its twentieth report¹ 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

¹ 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 -