

International Nonproprietary Names for Pharmaceutical Substances

Notice is hereby given that, in accordance with paragraph 7 of the Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances*, the following names are selected as Recommended International Nonproprietary Names. The inclusion of a name in the lists of Recommended International Nonproprietary Names does not imply any recommendation of the use of the substance in medicine or pharmacy.

Recommended International Nonproprietary Names (Rec. INN): List 33

Lists of proposed (1–65) and recommended (1–31) international nonproprietary names can be found in Cumulative List No. 8, 1992.

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
alestramustinum alestramustine	estradiol 3-[bis(2-chloroethyl)carbamate], 17-ester with L-alanine $C_{26}H_{36}Cl_2N_2O_4$
alglucerasum alglucerase	glucosylceramidase (human placenta isoenzyme protein moiety reduced) $C_{2532}H_{3854}N_{672}O_{711}S_{16}$ (for non-glycosylated protein)
alovudinum alovudine	3'-deoxy-3'-fluorothymidine $C_{10}H_{13}FN_2O_4$
altumomabum altumomab	immunoglobulin G 1 (mouse monoclonal ZCE025 anti-human antigen CEA), disulfide with mouse monoclonal ZCE025 light chain, dimer
amesergidum amesergide	<i>N</i> -cyclohexyl-1-isopropyl-6-methylergoline-8 β -carboxamide $C_{25}H_{35}N_3O$
amitivirum amitivir	1,3,4-thiadiazole-2-carbamionitrile $C_3H_2N_4S$
andolastum andolast	4,4'-di-1 <i>H</i> -tetrazol-5-ylbenzanilide $C_{15}H_{11}N_9O$
ardeparinum natricum ardeparin sodium	Sodium salt of depolymerized heparin obtained by peroxide degradation (at elevated temperature) of heparin from pork intestinal mucosa; the end chain structure appears to be the same as the starting material with no unusual sugar residues present; the low molecular weight heparin produced differs from the starting material in molecular weight only; the average relative molecular mass range is 5,500 to 6,500 daltons, 98 per cent of which ranging between 2,000 and 15,000; the degree of sulfation is approximately 2,7 per disaccharidic unit.

* *Official Records of the World Health Organization*, 1955, **60**, 3 (Resolution EB15.R7); 1969, **173**, 10 (Resolution EB43.R9).

artilidum artilide	(+)-4'-[(<i>R</i>)-4-(dibutylamino)-1-hydroxybutyl]methanesulfonanilide C ₁₉ H ₃₄ N ₂ O ₃ S
atrinositolum atrinositol	D- <i>myo</i> -inositol 1,2,6-tris(dihydrogen phosphate) C ₆ H ₁₅ O ₁₅ P ₃
aviconinimum aviconin	1-butyric acid-2-L-alanine-3-L-serine-7-(L-2-aminobutyric acid)-26-L-aspartic acid-27-L-valine-29-L-alaninecalcitonin (salmon) C ₁₄₇ H ₂₄₃ N ₄₁ O ₄₆
azasetronum azasetron	(±)-6-chloro-3,4-dihydro-4-methyl-3-oxo- <i>N</i> -3-quinuclidinyl-2 <i>H</i> -1,4-benzoxazine-8-carboxamide C ₁₇ H ₂₀ ClN ₃ O ₃
berefrinum berefriine	<i>m</i> -[(2 <i>R</i> ,5 <i>R</i>)-2- <i>tert</i> -butyl-3-methyl-5-oxazolidinyl]phenol mixture with <i>m</i> -[(2 <i>S</i> ,5 <i>R</i>)-2- <i>tert</i> -butyl-3-methyl-5-oxazolidinyl]phenol C ₁₄ H ₂₁ NO ₂
besigomsinum besigomsin	(+)-(6 <i>S</i> ,7 <i>S</i> , <i>bis</i> - <i>R</i>)-5,6,7,8-tetrahydro-1,2,3,13-tetramethoxy-6,7-dimethylbenzo[3,4]cycloocta[1,2- <i>f</i>][1,3]benzodioxol-6-ol C ₂₃ H ₂₈ O ₇
bizelesinum bizelesin	1,3-bis[2-[[(<i>S</i>)-1-(chloromethyl)-1,6-dihydro-5-hydroxy-8-methylbenzo[1,2- <i>b</i> :4,3- <i>b'</i>]dipyrrol-3(2 <i>H</i>)-yl]carbonyl]indol-5-yl]urea C ₄₃ H ₃₆ Cl ₂ N ₈ O ₅
camiglibosum camiglibose	methyl 6-deoxy-6-[(2 <i>R</i> ,3 <i>R</i> ,4 <i>R</i> ,5 <i>S</i>)-3,4,5-trihydroxy-2-(hydroxymethyl)piperidino]-α-D-glucopyranoside C ₁₃ H ₂₅ NO ₉
carsatrinum carsatrin	4-[bis(<i>p</i> -fluorophenyl)methyl]-α-[(9 <i>H</i> -purin-6-ylthio)methyl]-1-piperazineethanol C ₂₅ H ₂₆ F ₂ N ₆ OS
carzelesinum carzelesin	N-[2-[[(<i>S</i>)-1-(chloromethyl)-1,6-dihydro-5-hydroxy-8-methylbenzo[1,2- <i>b</i> :4,3- <i>b'</i>]dipyrrol-3(2 <i>H</i>)-yl]carbonyl]indol-5-yl]-6-(diethylamino)-2-benzofurancarboxamide carbanilate (ester) C ₄₁ H ₃₇ ClN ₆ O ₅
cefefloxacinum cefefloxacin	(-)-7-[(2 <i>S</i> ,3 <i>R</i>)-3-amino-2-methyl-1-azetidiny]-1-(2,4-difluorophenyl)-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid C ₂₀ H ₁₆ F ₃ N ₃ O ₃
cilansetronum cilansetron	(-)-(<i>R</i>)-5,6,9,10-tetrahydro-10-[(2-methylimidazol-1-yl)methyl]-4 <i>H</i> -pyrido[3,2,1- <i>jk</i>]carbazol-11(8 <i>H</i>)-one C ₂₀ H ₂₁ N ₃ O
cladribinum cladribine	2-chloro-2'-deoxyadenosine C ₁₀ H ₁₂ ClN ₅ O ₃
clinafloxacinum clinafloxacin	(±)-7-(3-amino-1-pyrrolidinyl)-8-chloro-1-cyclopropyl-6-fluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid C ₁₇ H ₁₇ ClFN ₃ O ₃

clinprostum clinprost	(+)-methyl (3a <i>S</i> ,5 <i>R</i> ,6 <i>R</i> ,6a <i>S</i>)-1,3a,4,5,6,6a-hexahydro-5-hydroxy-6-[(<i>E</i>)-(3 <i>S</i>)-3-hydroxy-1-octenyl]-2-pentalenevalerate C ₂₂ H ₃₆ O ₄
deferipronum deferiprone	3-hydroxy-1,2-dimethyl-4(1 <i>H</i>)-pyridone C ₇ H ₉ N ₂ O
dexniguldipinum dexniguldipine	(+)-(<i>R</i>)-3-(4,4-diphenylpiperidino)propyl methyl 1,4-dihydro-2,6-dimethyl-4-(<i>m</i> -nitrophenyl)-3,5-pyridinedicarboxylate C ₃₆ H ₃₉ N ₃ O ₆
dezinamidum dezinamide	3-[(α,α,α -trifluoro- <i>m</i> -tolyl)oxy]-1-azetidincarboxamide C ₁₁ H ₁₁ F ₃ N ₂ O ₂
dimiracetamum dimiracetam	(\pm)-dihydro-1 <i>H</i> -pyrrolo[1,2- <i>a</i>]imidazole-2,5(3 <i>H</i> ,6 <i>H</i>)-dione C ₆ H ₈ N ₂ O ₂
dorzolamidum dorzolamide	(4 <i>S</i> ,6 <i>S</i>)-4-(ethylamino)-5,6-dihydro-6-methyl-4 <i>H</i> -thieno[2,3- <i>b</i>]thiopyran-2-sulfonamide 7,7-dioxide C ₁₀ H ₁₆ N ₂ O ₄ S ₃
drospirenonum drospirenone	(6 <i>R</i> ,7 <i>R</i> ,8 <i>R</i> ,9 <i>S</i> ,10 <i>R</i> ,13 <i>S</i> ,14 <i>S</i> ,15 <i>S</i> ,16 <i>S</i> ,17 <i>S</i>)-1,3',4',6,6a,7,8,9,10,11,12,13,14,15,15a,16-hexadecahydro-10,13-dimethylspiro-[17 <i>H</i> -dicyclopropa[6,7:15,16]cyclopenta[<i>a</i>]phenanthrene-17,2'(5' <i>H</i>)-furan]-3,5'(2 <i>H</i>)-dione C ₂₄ H ₃₀ O ₃
duloxetineum duloxetine	(+)-(<i>S</i>)- <i>N</i> -methyl- γ -(1-naphthyl)-2-thiophenepropylamine C ₁₈ H ₁₉ NOS
ecabapidum ecabapide	<i>m</i> -[[[(3,4-dimethoxyphenethyl)carbamoyl]methyl]amino]- <i>N</i> -methylbenzamide C ₂₀ H ₂₅ N ₃ O ₄
ecadotrilum ecadotril	<i>N</i> -[(<i>S</i>)- α -(mercaptomethyl)hydrocinnamoyl]glycine, benzyl ester, acetate (ester) C ₂₁ H ₂₅ NO ₄ S
enadolinum enadoline	<i>N</i> -methyl- <i>N</i> -[(5 <i>R</i> ,7 <i>S</i> ,8 <i>S</i>)-7-(1-pyrrolidinyl)-1-oxaspiro[4.5]dec-8-yl]-4-benzofuranacetamide C ₂₄ H ₃₂ N ₂ O ₃
enazadremum enazadrem	4,6-dimethyl-2-[(6-phenylhexyl)amino]-5-pyrimidinol C ₁₈ H ₂₅ N ₃ O
enofelastum enofelast	(<i>E</i>)-4'-fluoro-3,5-dimethyl-4-stilbenol C ₁₆ H ₁₅ FO
epoetinum alfa epoetin alfa	1-165-erythropoietin (human clone λ HEPOFL 13 protein moiety), glycoform α C ₈₀₉ H ₁₃₀₁ N ₂₂₉ O ₂₄₀ S ₅ (for non-glycosylated protein)
epoetinum beta epoetin beta	1-165-erythropoietin (human clone λ HEPOFL 13 protein moiety), glycoform β C ₈₀₉ H ₁₃₀₁ N ₂₂₉ O ₂₄₀ S ₅ (for non-glycosylated protein)

epoetin gamma epoetin gamma	1-165-erythropoietin (human clone λHEPOFL 13 protein moiety), glycoform γ C ₈₀₉ H _{1,301} N ₂₂₉ O ₂₄₀ S ₅ (for non-glycosylated protein)
fialuridinum fialuridine	1-(2-deoxy-2-fluoro-β-D-arabinofuranosyl)-5-iodouracil C ₉ H ₁₀ FIN ₂ O ₅
flezelastinum flezelastine	(±)-4-(p-fluorobenzyl)-2-(hexahydro-1-phenethyl-1H-azepin-4-yl)-1(2H)- phthalazinone C ₂₉ H ₃₀ FN ₃ O
furnidipinum furnidipine	(±)-methyl tetrahydrofurfuryl, 1,4-dihydro-2,6-dimethyl-4-(o-nitrophenyl)- 3,5-pyridinedicarboxylate C ₂₁ H ₂₄ N ₂ O ₇
ganefromycinum ganefromycin	An antibiotic produced by <i>Streptomyces lydicus</i> . Ganefromycin is a complex antibiotic with two major components: α and β. component α (2E,4E,6E)-7-[(2R*,3R*,5R*)-5-[7-[(3E,5E)-3-[[O-2,6-dideoxy-3-O-methyl-α-lyxo- hexopyranosyl-(1→4)-O-2,6-dideoxy-3-O-methyl-β-ribo-hexopyranosyl-(1→4)-2,6- dideoxy-3-O-methyl-α-lyxo-hexopyranosyl]oxy]-2-[(2S*,3S*,4S*,6R*)-tetrahydro- 2,3,4-trihydroxy-5,5-dimethyl-6-[(1E,3Z)-1,3-pentadienyl]-2H-pyran-2- yl]propionamido]-2-methoxy-1,3-dimethyl-3,5-heptadienyl]tetrahydro-3-hydroxy-2- furyl]-2,4,6-heptatrienoic acid, 2 ³ -phenylacetate component β (2E,4E,6E)-7-[(2R*,3R*,5R*)-5-[7-[(3E,5E)-3-[[O-2,6-dideoxy-3-O-methyl-α-lyxo- hexopyranosyl-(1→4)-O-2,6-dideoxy-3-O-methyl-β-ribo-hexopyranosyl-(1→4)-2,6- dideoxy-3-O-methyl-α-lyxo-hexopyranosyl]oxy]-2-[(2S*,3S*,4S*,6R*)-tetrahydro- 2,3,4-trihydroxy-5,5-dimethyl-6-[(1E,3Z)-1,3-pentadienyl]-2H-pyran-2- yl]propionamido]-2-methoxy-1,3-dimethyl-3,5-heptadienyl]tetrahydro-3-hydroxy-2- furyl]-2,4,6-heptatrienoic acid, 2 ⁴ -phenylacetate C ₆₅ H ₉₅ NO ₂₁ (empirical molecular formula)
glemanserinum glemanserin	(±)-1-phenethyl-α-phenyl-4-piperidinemethanol C ₂₀ H ₂₅ NO
grepafloxacinum grepafloxacin	(±)-1-cyclopropyl-6-fluoro-1,4-dihydro-5-methyl-7-(3-methyl-1-piperazinyl)-4-oxo-3- quinolinecarboxylic acid C ₁₉ H ₂₂ FN ₃ O ₃
gusperimus gusperimus	(±)-N-[[[4-[(3-aminopropyl)amino]butyl]carbamoyl]hydroxymethyl]-7- guanidinoheptanamide C ₁₇ H ₃₇ N ₇ O ₃
icatibantum icatibant	(R)-arginyl-(S)-arginyl-(S)-prolyl-(2S,4R)-(4-hydroxypropyl)glycyl-(S)- [3-(2-thienyl)alanyl]-(S)-seryl-(R)-[(1,2,3,4-tetrahydro-3-isoquinolyl)carbonyl]- (2S,3aS,7aS)-[(hexahydro-2-indoliny]carbonyl]-(S)-arginine C ₅₉ H ₈₉ N ₁₉ O ₁₃ S
icodextrinum icodextrin	dextrin, having more than 85% of its molecules with molecular masses between 1640 and 45000 with a claimed-average molecular mass of approximately 20000 [C ₆ H ₁₂ O ₆] _n

icodulinum icoduline	6-(2-thiazolylamino)- <i>m</i> -cresol C ₁₀ H ₁₀ N ₂ OS
idoxifenum idoxifene	1-[2-[<i>p</i> -[(<i>E</i> -β-ethyl-α-(<i>p</i> -iodophenyl)styryl]phenoxy]ethyl]pyrrolidine C ₂₈ H ₃₀ INO
igmesinum igmesine	(+)-α-[(<i>E</i> -cinnamyl)- <i>N</i> -(cyclopropylmethyl)-α-ethyl- <i>N</i> -methylbenzylamine C ₂₃ H ₂₉ N
intoplicinum intoplicine	11-[[3-(dimethylamino)propyl]amino]-8-methyl-7 <i>H</i> -benzo[<i>e</i>]pyrido[4,3- <i>b</i>]= indol-3-ol C ₂₁ H ₂₄ N ₄ O
iobitridolum iobitridol	<i>N,N'</i> -bis(2,3-dihydroxypropyl)-5-[2-(hydroxymethyl)hydracrylamido]-2,4,6-triiodo- <i>N,N'</i> -dimethylisophthalamide C ₂₀ H ₂₈ I ₃ N ₃ O ₉
iofratolum iofratol	<i>N,N''</i> -(2-hydroxytrimethylene)bis[<i>N'</i> -[2-hydroxy-1-(hydroxymethyl)ethyl]-2,4,6- triiodo-5-[(<i>S</i>)-lactamido]isophthalamide] C ₃₁ H ₃₆ I ₆ N ₆ O ₁₃
itasetronum itasetron	2-oxo- <i>N</i> -1α <i>H</i> ,5α <i>H</i> -tropan-3α-yl-1-benzimidazoline-1-carboxamide C ₁₆ H ₂₀ N ₄ O ₂
latanoprostum latanoprost	isopropyl (<i>Z</i>)-7-[(1 <i>R</i> ,2 <i>R</i> ,3 <i>R</i> ,5 <i>S</i>)-3,5-dihydroxy-2-[(3 <i>R</i>)-3-hydroxy- 5-phenylpentyl]cyclopentyl]-5-heptenoate C ₂₆ H ₄₀ O ₅
leminoprazolum leminoprazole	(±)-2-[[<i>o</i> -(isobutylmethylamino)benzyl]sulfinyl]benzimidazole C ₁₉ H ₂₃ N ₃ OS
levosimendanum levosimendan	mesoxalonitrile (–)-[<i>p</i> [(<i>R</i>)-1,4,5,6-tetrahydro-4-methyl-6-oxo-3- pyridazinyl]phenyl]hydrazone C ₁₄ H ₁₂ N ₆ O
lifibrolum lifibrol	(±)- <i>p</i> -[4-(<i>p-tert</i> -butylphenyl)-2-hydroxybutoxy]benzoic acid C ₂₁ H ₂₆ O ₄
linopirdinum linopirdine	1-phenyl-3,3-bis(4-pyridylmethyl)-2-indolinone C ₂₆ H ₂₁ N ₃ O
lomerizinium lomerizine	1-[bis(<i>p</i> -fluorophenyl)methyl]-4-(2,3,4-trimethoxybenzyl)piperazine C ₂₇ H ₃₀ F ₂ N ₂ O ₃
losoxantrinum losoxantrone	7-hydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]-5-[[2-[(2- hydroxyethyl)amino]ethyl]amino]anthra[1,9- <i>cd</i>]pyrazol-6(2 <i>H</i>)-one C ₂₂ H ₂₇ N ₅ O ₄
mideplaninum mideplanin	a mixture of six substances of which 70% is: 34-[(2-acetamido-2-deoxy-β- <i>D</i> -glucopyranosyl)oxy]-15-amino-22,31-dichloro- 56-[[2-deoxy-2-(8-methylnonanamido)-β- <i>D</i> -glucopyranosyl]oxy]- <i>N</i> - [3-(dimethylamino)propyl]-2,3,16,17,18,19,35,36,37,38,48,49,50,50a-tetradeca= hydro-6,11,40,44-tetrahydroxy-42-(α- <i>D</i> -mannopyranosyloxy)-2,16,36,50,51,59- hexaoxo-1 <i>H</i> ,15 <i>H</i> ,34 <i>H</i> -20,23:30,33-dietheno-3,18:35,48-bis(iminomethano)- 4,8:10,14:25,28:43,47-tetrametheno-28 <i>H</i> -[1,14,6,22]dioxadiazacycloocta= cosino[4,5- <i>m</i>][10,2,16]benzoxadiazacyclotetracosine-38-carboxamide C ₉₃ H ₁₀₉ Cl ₂ N ₁₁ O ₃₂

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
moexiprilatum moexiprilat	(3 <i>S</i>)-2-[(2 <i>S</i>)- <i>N</i> -[(1 <i>S</i>)-1-carboxy-3-phenylpropyl]alanyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-3-isoquinolinecarboxylic acid C ₂₅ H ₃₀ N ₂ O ₇
monatepilum monatepil	(±)- <i>N</i> -(6,11-dihydrodibenzo[<i>b,e</i>]thiepin-11-yl)-4-(<i>p</i> -fluorophenyl)-1-piperazinebutyramide C ₂₈ H ₃₀ FN ₃ OS
namirotenum namirotene	<i>p</i> -[(<i>E</i>)-2-(5-isopropyl-2-thienyl)propenyl]benzoic acid C ₁₇ H ₁₈ O ₂ S
nasaruplasum nasaruplase	prourokinase (enzyme-activating) (human clone pA3/pD2/pF1 protein moiety) C ₂₀₃₁ H ₃₁₂₁ N ₅₈₅ O ₆₀₁ S ₃₁
nerisopamum nerisopam	1-(<i>p</i> -aminophenyl)-7,8-dimethoxy-4-methyl-5 <i>H</i> -2,3-benzodiazepine C ₁₈ H ₁₉ N ₃ O ₂
nexopamilum nexopamil	(2 <i>S</i>)-5-(hexylmethylamino)-2-isopropyl-2-(3,4,5-trimethoxyphenyl)valeronitrile C ₂₄ H ₄₀ N ₂ O ₃
niravolinum niravoline	<i>N</i> -methyl-2-(<i>m</i> -nitrophenyl)- <i>N</i> -[(1 <i>S</i> ,2 <i>S</i>)-2-(1-pyrrolidinyl)-1-indanyl]acetamide C ₂₂ H ₂₅ N ₃ O ₃
olanzapinum olanzapine	2-methyl-4-(4-methyl-1-piperazinyl)-10 <i>H</i> -thieno[2,3- <i>b</i>][1,5]benzodiazepine C ₁₇ H ₂₀ N ₄ S
orbifloxacinum orbifloxacin	1-cyclopropyl-7-(<i>cis</i> -3,5-dimethyl-1-piperazinyl)-5,6,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid C ₁₉ H ₂₀ F ₃ N ₃ O ₃
osateronum osaterone	(+)-6-chloro-17-hydroxy-2-oxapregna-4,6-diene-3,20-dione C ₂₀ H ₂₅ ClO ₄
pegaldesleukinum pegaldesleukin	125-L-serine-2-133-interleukin 2 (human reduced), reaction product with glutaric anhydride, esters with polyethylene glycol monomethyl ester
pendetidum pendetide	<i>N</i> ⁶ -[<i>N</i> -[2-[[2-[bis(carboxymethyl)amino]ethyl](carboxymethyl)amino]ethyl]- <i>N</i> -(carboxymethyl)glycyl]- <i>N</i> ² -(<i>N</i> -glycyl-L-tyrosyl)-L-lysine C ₃₁ H ₄₇ N ₇ O ₁₄
pidobenzonum pidobenzone	5-oxo-L-proline, <i>p</i> -hydroxyphenyl ester C ₁₁ H ₁₁ NO ₄
polidronii chloridum polidronium chloride	α-[(<i>E</i>)-4-[tris(2-hydroxyethyl)ammonio]-2-butenyl]-ω-[tris(2-hydroxyethyl)=ammonio]poly[(dimethyliminio)[(<i>E</i>)-2-butenylene] chloride] dichloride (C ₆ H ₁₂ ClN) _{<i>n</i>} · C ₁₆ H ₃₆ Cl ₂ N ₂ O ₆
pranlukastum pranlukast	<i>N</i> -[4-oxo-2-(1 <i>H</i> -tetrazol-5-yl)-4 <i>H</i> -1-benzopyran-8-yl]- <i>p</i> -(4-phenylbutoxy)=benzamide C ₂₇ H ₂₃ N ₅ O ₄

prezatidi cuprici acetas prezatide copper acetate	hydrogen [<i>N</i> ² -(<i>N</i> -glycyl-L-histidyl)-L-lysinato][<i>N</i> ² -(<i>N</i> -glycyl-L-histidyl)-L-lysinato(2-)]cuprate(1-), diacetate C ₂₈ H ₄₆ CuN ₁₂ O ₈ · 2 C ₂ H ₄ O ₂
ramorelixum ramorelix	1-[<i>N</i> -acetyl-3-(2-naphthyl)-D-alanyl- <i>p</i> -chloro-D-phenylalanyl-D-tryptophyl-L-seryl-L-tyrosyl-O-(6-deoxy- α -L-mannopyranosyl)-D-seryl-L-leucyl-L-arginyl-L-prolyl]semicarbazide C ₇₄ H ₉₅ ClN ₁₆ O ₁₈
raxofelastum raxofelast	(\pm)-2,3-dihydro-5-hydroxy-4,6,7-trimethyl-2-benzofuranacetic acid, acetate C ₁₅ H ₁₈ O ₅
remifentanilum remifentanil	4-carboxy-4-(<i>N</i> -phenylpropionamido)1-piperidinepropionic acid, dimethyl ester C ₂₀ H ₂₈ N ₂ O ₅
revizinonum revizinone	(<i>E</i>)- <i>N</i> -cyclohexyl- <i>N</i> -methyl-2-[[α -(1,2,3,5-tetrahydro-2-oxoimidazo[2,1- <i>b</i>]=quinazolin-7-yl)benzylidene]amino]oxy]acetamide C ₂₆ H ₂₉ N ₅ O ₃
rifamexilum rifamexil	(9 <i>S</i> ,12 <i>E</i> ,14 <i>S</i> ,15 <i>R</i> ,16 <i>S</i> ,17 <i>R</i> ,18 <i>R</i> ,19 <i>R</i> ,20 <i>S</i> ,21 <i>S</i> ,22 <i>E</i> ,24 <i>Z</i>)-2-(diethylamino)-5,6,16,18,20-pentahydroxy-14-methoxy-7,9,15,17,19,21,25-heptamethyl-9,4-(epoxypentadeca[1,11,13]trienimino)furo[2',3':7,8]naphtho[1,2- <i>d'</i>]thiazole-10,26(9 <i>H</i>)-dione, 16-acetate C ₄₂ H ₅₅ N ₃ O ₁₁ S
ritipenemum ritipenem	(5 <i>R</i> ,6 <i>S</i>)-6-[(1 <i>R</i>)-1-hydroxyethyl]-3-(hydroxymethyl)-7-oxo-4-thia-1-aza=bicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-carbamate C ₁₀ H ₁₂ N ₂ O ₆ S
safironilum safironil	<i>N,N'</i> -bis(3-methoxypropyl)-2,4-pyridinedicarboxamide C ₁₅ H ₂₃ N ₃ O ₄
sanguinari chloridum sanguinarium chloride	sanguinarine chloride or 13-methyl[1,3]benzodioxolo[5,6- <i>c</i>]-1,3-dioxolo[4,5- <i>i</i>]=phenanthridinium chloride C ₂₀ H ₁₄ ClN ₄ O ₄
saripidemum saripidem	<i>N</i> -[[2-(<i>p</i> -chlorophenyl)imidazo[1,2- <i>a</i>]pyridin-3-yl]methyl]- <i>N</i> -methylbutyramide C ₁₉ H ₂₀ ClN ₃ O
satigrelum satigrel	4-cyano-5,5-bis(<i>p</i> -methoxyphenyl)-4-pentenoic acid C ₂₀ H ₁₉ NO ₄
satumomabum satumomab	immunoglobulin G 1 (mouse monoclonal B72.3 anti-human glycoprotein TAG-72), disulfide with mouse monoclonal B72.3 light chain, dimer
sebriplatinum sebriplatin	(+)- <i>cis</i> -(1,1-cyclobutanedicarboxylato)[(2 <i>R</i>)-2-methyl-1,4-butanediamine- <i>N,N'</i>]platinum C ₁₁ H ₂₀ N ₂ O ₄ Pt
semorphonum semorphone	(-)-4,5 α -epoxy-3,14-dihydroxy-17-(2-methoxyethyl)morphinan-6-one C ₁₉ H ₂₃ NO ₅

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
sepiostatum sepiostat	6-amidino-2-naphthyl <i>p</i> -(2-imidazolin-2-ylamino)benzoate C ₂₁ H ₁₉ N ₅ O ₂
siratiazemum siratiazem	(+)-(2 <i>S</i> ,3 <i>S</i>)-2,3-dihydro-3-hydroxy-5-[2-(isopropylmethylamino)ethyl]-2-(<i>p</i> -methoxyphenyl)-1,5-benzothiazepin-4(5 <i>H</i>)-one acetate (ester) C ₂₄ H ₃₀ N ₂ O ₄ S
sonerminum sonermin	3-157-tumor necrosis factor (human) C ₇₆₇ H ₁₂₀₄ N ₂₁₀ O ₂₂₉ S ₂
sulopenemum sulopenem	(5 <i>R</i> ,6 <i>S</i>)-6-[(1 <i>R</i>)-1-hydroxyethyl]-7-oxo-3-[(3 <i>S</i>)-tetrahydro-3-thienyl]thio-4-thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, (<i>R</i>)- <i>S</i> -oxide C ₁₂ H ₁₅ NO ₅ S ₃
tallimustinum tallimustine	<i>N</i> '-(2-amidinoethyl)-4-[<i>p</i> -[bis(2-chloroethyl)amino]benzamido]-1,1',1''-trimethyl- <i>N</i> ,4': <i>N</i> ',4''-ter[pyrrole-2-carboxamide] C ₃₂ H ₃₈ Cl ₂ N ₁₀ O ₄
tarazepidum tarazepide	(-)- <i>N</i> -[(<i>S</i>)-2,3-dihydro-1-methyl-2-oxo-5-phenyl-1 <i>H</i> -1,4-benzodiazepin-3-yl]-5,6-dihydro-4 <i>H</i> -pyrrolo[3,2,1- <i>ij</i>]quinoline-2-carboxamide C ₂₈ H ₂₄ N ₄ O ₂
teloxantroneum teloxantrone	7,10-dihydroxy-2-[2-[(2-hydroxyethyl)amino]ethyl]-5-[[2-(methylamino)ethyl]amino]anthra[1,9- <i>cd</i>]pyrazol-6(2 <i>H</i>)-one C ₂₁ H ₂₅ N ₅ O ₄
tetrazolastum tetrazolast	4-(1 <i>H</i> -tetrazol-5-yl)tetrazolo[1,5- <i>a</i>]quinoline C ₁₀ H ₆ N ₈
thymoctonanum thymoctonan	<i>N</i> -[<i>N</i> -[<i>N</i> '-1-[<i>N</i> -[<i>N</i> -(<i>N</i> -L-leucyl-L-α-glutamyl)-L-α-aspartyl]glycyl]-L-prolyl]-L-lysyl]-L-phenylalanyl]-L-leucine C ₄₃ H ₆₇ N ₉ O ₁₃
tiotropii bromidum tiotropium bromide	6β,7β-epoxy-3β-hydroxy-8-methyl-1α <i>H</i> ,5α <i>H</i> -tropanium bromide, di-2-thienylglycolate C ₁₉ H ₂₂ BrNO ₄ S ₂
tiquesidum tiqueside	(25 <i>R</i>)-5α-spirostan-3β-yl 4- <i>O</i> -β-D-glucopyranosyl-β-D-glucopyranoside C ₃₉ H ₆₄ O ₁₃
tirapazaminum tirapazamine	3-amino-1,2,4-benzotriazine 1,4-dioxide C ₇ H ₆ N ₄ O ₂
trefentanilum trefentanil	<i>N</i> -[1-[2-(4-ethyl-5-oxo-Δ ² -tetrazolin-1-yl)ethyl]-4-phenyl-4-piperidyl]-2'-fluoropropionanilide C ₂₅ H ₃₁ FN ₆ O ₂
tripalmitinum tripalmitin	tripalmitin <i>or</i> 1,2,3-propanetriyl trihexadecanoate C ₅₁ H ₉₈ O ₆
trogliptonum troglitazone	(±)- <i>all-rac</i> -5-[<i>p</i> -[(6-hydroxy-2,5,7,8-tetramethyl-2-chromanyl)methoxy]benzyl]-2,4-thiazolidinedione C ₂₄ H ₂₇ NO ₅ S

<i>Recommended International Nonproprietary Name (Latin, English)</i>	<i>Chemical Name or Description and Molecular Formula</i>
turosteridum turosteride	1,3-diisopropyl-1-[(4-methyl-3-oxo-4-aza-5 α -androstan-17 β -yl)carbonyl]urea C ₂₇ H ₄₅ N ₃ O ₃
valsartanum valsartan	<i>N</i> -[<i>p</i> -(<i>o</i> -1 <i>H</i> -tetrazol-5-ylphenyl)benzyl]- <i>N</i> -valeryl-L-valine C ₂₄ H ₂₉ N ₅ O ₃
venritidinum venritidine	(\pm)-(Z)- <i>N</i> -methyl-2-nitro- <i>N'</i> -[2-[[5-[(tricyclo[2.2.1.0 ^{2,6}]hept-3-ylamino)=methyl]furfuryl]thio]ethyl]-1,1-ethenediamine C ₁₈ H ₂₆ N ₄ O ₃ S
zamifenacinum zamifenacin	(<i>R</i>)-3-(diphenylmethoxy)-1-[3,4-(methylenedioxy)phenetyl]piperidene C ₂₇ H ₂₉ NO ₃
zanoteronom zanoterone	1'-(methylsulfonyl)-1' <i>H</i> -5 α ,17 α -pregn-20-yno[3,2- <i>c</i>]pyrazol-17-ol C ₂₃ H ₃₂ N ₂ O ₃ S

AMENDMENTS TO PREVIOUS LISTS

Chronicle of the World Health Organization, Vol. 9, 1955

Recommended International Nonproprietary Names (Rec. INN): List 1

p. 187	<i>delete</i> corticotrophinum corticotrophin	<i>insert</i> corticotropinum corticotropin
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Supplement to WHO Chronicle Vol. 33, No. 10, 1979

Recommended International Nonproprietary Names (Rec. INN): List 19

p. 6	pipecuronii bromidum pipecuronium bromide	<i>replace the chemical name by the following:</i> 4,4'-(3 α -17 β -dihydroxy-5 α -androstan-2 β ,16 β -ylene)bis[1,1-dimethylpiperazinium] dibromide, diacetate (ester) C ₃₅ H ₆₂ Br ₂ N ₄ O ₄
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Supplement to WHO Chronicle Vol. 38, No. 6, 1984

Recommended International Nonproprietary Names (Rec. INN): List 24

p. 5	icospiramidum icospiramide	<i>replace the chemical name by the following:</i> 8-[<i>cis</i> -4-cyano-4-(<i>p</i> -fluorophenyl)cyclohexyl]-1-(<i>p</i> -fluorophenyl)-4-oxo-1,3,8-triazaspiro[4.5]decane-3-acetamide
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Supplement to WHO Chronicle Vol. 40, No. 6, 1986

Recommended International Nonproprietary Names (Rec. INN): List 26

p. 2	bropiriminum bropirimine	<i>replace the chemical name by the following:</i> 2-amino-5-bromo-6-phenyl-4(3 <i>H</i>)-pyrimidinone
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WHO Drug Information, Vol. 1, No. 4, 1987

Recommended International Nonproprietary Names (Rec. INN): List 27

p. 5	fosinoprilum fosinopril	<i>replace the chemical name by the following:</i> (4 <i>S</i>)-4-cyclohexyl-1-[[<i>(R)</i> -[(<i>S</i>)-1-hydroxy-2-methylpropoxy](4-phenylbutyl)= phosphinyl]acetyl]-L-proline propionate (ester)
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WHO Drug Information, Vol. 5, No. 3, 1991

Recommended International Nonproprietary Names (Rec. INN): List 31

p. 7	leuciglumerum leuciglumer	<i>replace the molecular formula by the following:</i> (C ₆ H ₁₃ NO ₂ · C ₆ H ₁₁ NO ₄) _n
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WHO Drug Information, Vol. 6, No. 3, 1992

Recommended International Nonproprietary Names (Rec. INN): List 32

p. 3	dexfososerinum dexfososerine	<i>replace the chemical name by the following:</i> (+)-L-serine dihydrogen phosphate (ester)
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