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International Non-Proprietary Names for Pharmaceutical Preparations

In accordance with paragraph 3 of the Procedure for the Selection of Recommended International Non-Proprietary Names for Pharmaceutical Preparations,[1] notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Non-Proprietary 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*.

The inclusion of a name in the lists of proposed international non-proprietary names does not imply any recommendation for the use of the substance in medicine or pharmacy.

Proposed International Non-Proprietary Names (*Prop. I.N.N.*): List 15[2]

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
aceglutamidum aceglutamide	N_2-acetyl-L-glutamine $C_7H_{12}N_2O_4$
acepromet azinum acepromet azine	10-[2-(dimethylamino)propyl]phenothiazin-2-yl methyl ketone $C_{19}H_{22}N_2OS$
acidum ioglycamicum ioglycamic acid	3,3′-(diglycoloyldiimino)bis[2,4,6-triiodobenzoic acid] $C_{18}H_{10}I_6N_2O_7$
acidum oxolonicum oxolinic acid	5-ethyl-5,8-dihydro-8-oxo-1,3-dioxolo[4,5-*g*] quinoline-7-carboxylic acid $C_{13}H_{11}NO_5$
actinoquinolum actinoquinol	8-ethoxy-5-quinolinesulfonic acid $C_{11}H_{11}NO_4S$
aklomidum aklomide	2-cloro-4-nitrobenzamide $C_7H_5ClN_2O_3$
alfasonum alfasone	16α, 17-dihydroxypregn-4-ene-3,20-dione $C_{21}H_{30}O_4$
alfetaminum alfetamine	α-allylphenethylamine $C_{11}H_{15}N$

[1] See Annex, p. 12.

[2] Other lists of proposed international non-proprietary 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; 1959, 13, 105; *WHO Chronicle*, 1959, **13**, 152; 1960, **14**, 168, 244; 1961, **15**, 314; 1962, 16, 385; 1963, 17, 389, 1964, **18**, 433.

Lists of recommended international non-proprietary 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.

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
algeldratum algeldrate	hydrated aluminium hydroxide $AlH_3O_3.nH_2O$
almadrati sulfas almadrate sulfate	aluminium magnesium hydroxide oxide sulfate hydrate $Al_4H_6Mg_2O_{14}S.nH_2O$
amantadinum amantadine	1-adamantanamine $C_{10}H_{17}N$
amidefrini mesylas amidefrine mesylate	3′-[1-hydroxy-2-(methylamino)ethyl]methanesulfonalinide methane sulfonate $C_{11}H_{20}N_2O_6S_2$
amoxydramini camsylas amoxydramine camsylate	2-(diphenylmethoxy)-*N*,*N*-dimethylethylamine-N-oxide 2-oxo-10-bornanesulfonate $C_{27}H_{37}NO_5S$
ampyzinum ampyzine	2-(dimethylamino)pyrazine $C_6H_9N_3$
anisacrilum anisacril	2-(*o*-methoxyphenyl)-3,3-diphenyl acrylic acid $C_{22}H_{18}O_3$
antafenitum antafenite	(±)5,6-dihydro-6-phenylimidazo[2,1-*b*]thiazole $C_{11}H_{10}N_2S$
antazonitum antazonite	*N*-{3-[2-hydroxy-2-(2-thienyl)ethyl]-4-thiazolin-2-ylidene}acetamide $C_{11}H_{12}N_2O_2S_2$
antelmycinum antelmycin	an antibiotic substance obtained from cultures of *Streptomyces longissimus*, or the same substance produced by any other means
antienitum antienite	(±)-5,6-dihydro-6-(2-thienyl)imidazo[2,1-*b*]thiazole $C_9H_8N_2S_2$
atromepinum atromepine	(—)-3α-tropanyl 2-methyl-2-phenylhydracrylate $C_{18}H_{25}NO_3$
bamifyllinum bamifylline	8-benzyl-7{-2-[ethyl(2-hydroxyethyl)amino]ethyl}theophylline $C_{20}H_{27}O_3N_5$
benhepazonum benhepazone	1-benzyl-2(1*H*)-cycloheptimidazolone $C_{15}H_{12}N_2O$
benorteronum benorterone	17β-hydroxy-17-methyl-*B*-norandrost-4-en-3-one $C_{19}H_{28}O_2$
benzydaminum benzydamine	1-benzyl-3-[3-(dimethylamino)propoxy]-1*H*-indazole $C_{19}H_{23}N_3O$
bezitramidum bezitramide	1-[1-(3-cyano-3,3-diphenylpropyl)-4-piperidyl]-3-propionyl-2-benzimidazolinone $C_{31}H_{32}N_4O_2$
bromamidum bromamide	3-(*p*-bromoanilino)-*N*,*N*-dimethylpropionamide $C_{11}H_{15}BrN_2O$
bufogeninum bufogenin	14,15β-epoxy-3β-hydroxy-5β-bufa-20,22-dienolide $C_{24}H_{32}O_4$
buramatum buramate	2-hydroxyethyl benzylcarbamate $C_{10}H_{13}NO_3$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
cactinomycinum cactinomycin	an antibiotic substance obtained from cultures of *Streptomyces chrysomallus*, or the same substance produced by any other means
calcii trinatrii pentetas calcium trisodium pentetate	calcium trisodium(carboxymethylimino)bis-(ethylene nitrilo) tetraacetic acid $C_{14}H_{18}CaN_3Na_3O_{10}$
carbamazepinum carbamazepine	5*H*-dibenz[*b*, *f*]azepine-5-carboxamide $C_{15}H_{12}N_2O$
carbenoxolonum carbenoxolone	3β-hydroxy-11-oxoolean-12-en-30-oic acid hydrogen succinate $C_{34}H_{50}O_7$
carfimatum carfimate	1-phenyl-2-propynyl carbamate $C_{10}H_9NO_2$
cefaloridinum cefaloridine	1-{[2-carboxy-8-oxo-7-[2-(2-thienyl)-acetamido]-5-thia-1-azabicyclo [4.2.0]oct-2-en-3-yl]methyl}pyridinium hydroxide, inner salt $C_{19}H_{17}N_3O_4S_2$
cetalkonii chloridum cetalkonium chloride	benzylhexadecyldimethylammonium chloride $C_{25}H_{46}Cl\ N$
cholini salicylas choline salicylate	(2-hydroxyethyl)trimethyl ammonium salicylate $C_{12}H_{19}NO_4$
clocinizinum clocinizine	1-(*p*-chloro-α-phenylbenzyl)-4-cinnamylpiperazine $C_{26}H_{27}ClN_2$
clometeronum clometerone	6α-chloro-16α-methylpregn-4-ene-3,20-dione $C_{22}H_{31}ClO_2$
clopononum cloponone	(±)-2,2-dichloro-*N*-[*p*-chloro-α-(chloromethyl)phenacyl] acetamide $C_{11}H_9Cl_4NO_2$
cloretatum cloretate	bis(2,2,2-trichloroethyl)carbonate $C_5H_4Cl_6O_3$
clorexolonum clorexolone	6-chloro-2-cyclohexyl-3-oxo-5-isoindolinesulfonamide $C_{14}H_{17}ClN_2O_3S$
clotixamidum clotixamide	4-[3-(2-chlorothioxanthen-9-ylidene)propyl]-*N*-methyl-1-piperazine-propionamide $C_{24}H_{28}ClN_3OS$
cloxypendylum cloyxpendyl	4-[3-(3-chloro-10*H*-pyrido[3,2-*b*] [1,4]-benzothiazin-10-yl)propyl]-1-piperazine ethanol $C_{20}H_{25}ClN_4OS$
cobamamidum cobamamide	inner salt of the *Co*-(5'-deoxyadenosine-5') derivative of the 3'-ester of cobinamide phosphate with 5,6-dimethyl-1-α-D-ribofuranosylbenzimidazole $C_{72}H_{100}CoN_{18}O_{17}P$
codoximum codoxime	dihydrocodeinone O-(carboxymethyl)oxime $C_{20}H_{24}N_2O_5$
cortodoxonum cortodoxone	17,21-dihydroxypregn-4-ene-3,20-dione $C_{21}H_{30}O_4$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
coumamycinum coumamycin	an antibiotic substance obtained from cultures of *Streptomyces rishiriensis*, or the same substance produced by any other means $C_{55}H_{58}N_5NaO_{20}$
cyclexanonum cyclexanone	2-(cyclopenten-1-yl)-2-(2-morpholinoethyl) cyclopentanone $C_{16}H_{25}NO_2$
cyheptropinum cyheptropine	10,11-dihydro-5*H*-dibenzo[*a*, *d*]cycloheptene-5-carboxylic acid tropine ester $C_{24}H_{27}NO_2$
cypenaminum cypenamine	2-phenylcyclopentylamine $C_{11}H_{15}N$
deanoli aceglumas deanol aceglumate	2-(2-dimethylamino)-ethanol hydrogen *N*-acetylglutamate $C_{11}H_{22}N_2O_6$
debrisoquinum debrisoquine	3,4-dihydro-2(1*H*)-isoquinolinecarboxamidine $C_{10}H_{13}N_3$
deditonii bromidum deditonium bromide	decamethylenebis{dimethyl[2-(thymyloxy)ethyl]ammonium bromide} $C_{38}H_{66}Br_2N_2O_2$
dehydroemetinum dehydroemetine	3-ethyl-9,10-dimethoxy-1,6,7,11b-tetrahydro-2-[(1,2,3,4-tetrahydro-6,7-dimethoxy-1-isoquinolyl)methyl]-4*H*-benzo[*a*]quinolizine $C_{29}H_{36}N_2O_4$
denatonii benzoas denatonium benzoate	benzyldiethyl[(2,6-xylylcarbamoyl)methyl]ammonium benzoate $C_{28}H_{34}O_3N_2$
desaspidinum desaspidin	3′-[5-butyryl-2,4-dihydroxy-3,3-dimethyl-6-oxo-1,4-cyclohexadien-1-yl) methyl]-2′,6′-dihydroxy-4′-methoxybutyrophenone $C_{24}H_{30}O_8$
desmethylmoramidum desmethylmoramide	1-(4-morpholino-2,2-diphenylbutyryl)pyrrolidine $C_{24}H_{30}N_2O_2$
diarbaronum diarbarone	*N*-[2-(diethylamino)ethyl]-4-hydroxy-2-oxo-2*H*-1-benzopyran-3-carboxamide $C_{16}H_{20}N_2O_4$
dimecaminum dimecamine	*N*,*N*-2,3,3-pentamethyl-2-norbornanamine $C_{12}H_{23}N$
diponii bromidum diponium bromide	triethyl(3-hydroxyethyl)ammonium bromide dicyclopentylacetate $C_{20}H_{38}BrNO_2$
ditolamidum ditolamide	*N*,*N*-dipropyl-*p*-toluenesulfonamide $C_{13}H_{21}NO_2S$
dosulepinum dosulepin	*N*,*N*-dimethyldibenz[*b*,*e*]thiepin-Δ_{11}(6*H*),γ-propylamine $C_{19}H_{21}NS$
doxepinum doxepin	*N*,*N*,dimethyldibenz[*b*,*e*]oxepin-Δ_{11}(6*H*),γ-propylamine $C_{19}H_{21}NO$
embraminum embramine	2-[(*p*-bromo-α-methyl-α-phenylbenzyl)oxy]-*N*,*N*-dimethyl ethylamine $C_{18}H_{22}BrNO$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
encypratum encyprate	ethyl *N*-benzylcyclopropanecarbamate $C_{13}H_{17}NO_2$
enoxolonum enoxolone	3β-hydroxy-11-oxoolean-12-en-30-oic acid $C_{30}H_{46}O_4$
etamsylatum etamsylate	diethylamine 2,5-dihydroxybenzenesulfonate $C_{10}H_{17}NO_5S$
etomidatum etomidate	(±)-ethyl 1-(α-methylbenzyl)imidazole-5-carboxylate $C_{14}H_{16}N_2O_2$
felipyrinum felipyrine	1-phenyl-3-piperidino-2-pyrrolidinone $C_{15}H_{20}N_2O$
fenaclonum fenaclon	3-chloro-*N*-phenethylpropionamide $C_{11}H_{14}ClNO$
fenamisalum fenamisal	phenyl-4-aminosalicylate $C_{13}H_{11}NO_3$
feneritrolum feneritrol	pentaerythritol tetrakis(2-phenylbutyrate) $C_{45}H_{52}O_8$
fenharmanum fenharmane	1-benzyl-2,3,4,9-tetrahydro-1*H*-pyrido[3,4-*b*]indole $C_{18}H_{18}N_2$
ferrotreninum ferrotrenine	hydrogen bis[*N*-ethylidenethreoninato] diaquoferrate(II) $C_{12}H_{24}FeN_2O_8$
flavoxatum flavoxate	piperidinoethyl 3-methyl-2-phenyl-4-oxo-4*H*-1-benzopyran-8-carboxylate $C_{24}H_{25}NO_4$
fluocortolonum fluocortolone	6α-fluoro-11β,21-dihydroxy-16α-methylpregna-1,4-diene-3,20-dione $C_{22}H_{29}FO_4$
fluspirilenum fluspirilene	8-[4,4-bis(*p*-fluorophenyl)butyl]-1-phenyl-1,3,8-triazaspiro[4,5]decan-4-one $C_{29}H_{31}F_2N_3O$
follotropinum (humanum) follotropin (human)	purified, standardized extract of post-menopausal urine containing primarily the follicle stimulating hormone (FSH) with only a mere trace of luterinizing hormone (LH)
fosfestrolum fosfestrol	$\alpha_1\alpha'$diethyl-4,4'-stilbenediol bis(di-H phosphate) $C_{18}H_{22}O_8P_2$
furazolii chloridum furazolium chloride	6,7-dihydro-3-(5-nitro-2-furyl)-5*H*-imidazo[2,1-*b*]thiazolium chloride $C_9H_8ClN_3O_3S$
fusafunginum fusafungine	an antibiotic substance obtained from cultures of a *fusarium* belonging to *Lateritium Wr.* section, or the same substance produced by any other means
glafeninum glafenine	2,3-dihydroxypropyl *N*-(7-chloro-4-quinolyl) anthranilate $C_{19}H_{17}ClN_2O_4$
glybuzolum glybuzole	*N*-(5-*tert*-butyl-1,3,4-thiadiazol-2-yl)benzenesulfonamide $C_{12}H_{15}N_3O_2S_2$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
glyhexamidum glyhexamide	1-cyclohexyl-3-(5-indanylsulfonyl)urea $C_{16}H_{22}N_2O_3S$
glymidinum natricum glymidine sodium	*N*-[5-(2-methoxyethoxy)-2-pyrimidinyl]benzenesulfonamide sodium derivative $C_{13}H_{14}N_3NaO_4S$
guanisoquinum guanisoquine	7-bromo-3,4-dihydro-2-(1*H*)-isoquinolinecarboxamidine $C_{10}H_{12}BrN_3$
guanoclorum guanoclor	{[2-(2,6-dichlorophenoxy)ethyl]amino}guanidine $C_9H_{12}Cl_2N_4O$
guanoxanum guanoxan	(1,4-benzodioxan-2-ylmethyl)guanidine $C_{10}H_{13}N_3O_2$
hepzidinum hepzidine	4-(10,11-dihydro-5*H*-dibenzo[*a*,*d*]cyclohepten-5-yloxy)-1-methylpiperidine $C_{21}H_{25}NO$
hetacillinum hetacillin	6-[(2,2-dimethyl-4-phenyl-5-oxazolidinylidene)amino]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid $C_{19}H_{23}N_3O_4S$
hexasonii iodidum hexasonium iodide	(2-hydroxyethyl)dimethyl sulfonium iodide α-phenyl cyclohexaneacetate $C_{18}H_{27}IO_2S$
hexedinum hexedine	2,6-bis(2-ethylhexyl)hexahydro-7a-methyl-1*H*-imidazo[1,5-*c*]imidazole $C_{22}H_{45}N_3$
hexobendinum hexobendine	3,3'[ethylenebis(methylimino)]di-1-propanol 3,4,5-trimethoxybenzoate diester $C_{30}H_{44}N_2O_{10}$
homofenazinum homofenazine	hexahydro-4-{3-[2-(trifluoromethyl)phenothiazin-10-yl]propyl}-1*H*-1,4-diazepine-1-ethanol $C_{23}H_{28}F_3N_3OS$
hymecromonum hymecromone	7-hydroxy-4-methylcoumarin $C_{10}H_8O_3$
insulini injectio neutralis neutral injection of insulin	a sterile solution of insulin buffered at pH 7
iodamidum iodamide	3-acetamido-5-acetamidomethyl-2,4,6-triiodobenzoic acid $C_{12}H_{11}I_3N_2O_4$
iprindolum iprindole	5-[3-(dimethylamino)propyl]-6,7,8,9,10,11-hexahydro-5*H*-cyclooct[*b*]indole $C_{19}H_{28}N_2$
ketocainum ketocaine	2'-[2-(diisopropylamino)ethoxy]butyrophenone $C_{18}H_{29}NO_2$
levorinum levorin	an antibiotic substance from polyene series, obtained from cultures of *Actinomyces levoris*, or the same substance obtained by any other means

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
lidoflazinum lidoflazine	4-[4,4-bis(*p*-fluorophenyl)butyl]-1-piperazineaceto-2′,6′xylidide $C_{30}H_{35}F_2N_3O$
macrogoli stearas 400 macrogol stearate 400	monoesters of stearic acid and polyethylene glycol 400 $C_{34}H_{68}O_{10}$ (nominal)
macrogoli stearas 2000 macrogol stearate 2000	monoesters of stearic acid and polyethylene glycol 2000 $C_{88}H_{176}O_{42}$ (nominal)
mebanazinum mebanazine	α-methylbenzylhydrazine $C_8H_{12}N_2$
mebutizidum mebutizide	6-chloro-3,4-dihydro-3-(1,2-dimethylbutyl)-2*H*-1,2,4-benzothiadiazine-7-sulfonamide-1,1-dioxide $C_{13}H_{20}ClN_3O_4S_2$
meclofenoxatum meclofenoxate	2-(dimethylamino)ethyl(*p*-chlorphenoxy)acetate $C_{12}H_{16}ClNO_3$
medrogestonum medrogestone	6,17-dimethylpregna-4,6-diene-3,20-dione $C_{23}H_{32}O_2$
mefeserpinum mefeserpine	methyl reserpate ester of (*p*-methoxyphenoxy) acetic acid $C_{32}H_{38}N_2O_8$
megluminum meglumine	*N*-methylglucamine $C_7H_{17}NO_5$
meladrazinum meladrazine	2,4-bis(diethylamino)-6-hydrazino-*s*-triazine $C_{11}H_{23}N_7$
menglytatum menglytate	*p*-menth-3-yl ethoxyacetate $C_{14}H_{26}O_3$
meprednisonum meprednisone	17,21-dihydroxy-16β-methylpregna-1,4-diene-3,11,20-trione $C_{22}H_{28}O_5$
mesterolonum mesterolone	17β-hydroxy-1α-methyl-5α-androstan-3-one $C_{20}H_{32}O_2$
metescufyllinum metescufylline	7-[2-(diethylamino)ethyl]theophylline [(7-hydroxy-4-methyl-2-oxo-2*H*-1-benzopyran-6-yl)oxy]acetate $C_{25}H_{31}N_5O_8$
methaniazidum methaniazide	isonicotinic acid 2-(sulfomethyl)hydrazine $C_7H_9N_3O_4S$
mexenonum mexenone	2-hydroxy-4-methoxy-4′-methylbenzophenone $C_{15}H_{14}O_3$
mobecarbum mobecarb	phenacyl 4-morpholineacetate $C_{14}H_{17}NO_4$
modalinum modaline	2-methyl-3-piperidinopyrazine $C_{10}H_{15}N_3$
mofebutazonum mofebutazone	4-butyl-1-phenyl-3,5-pyrazolidinedione $C_{13}H_{16}N_2O_2$
moxastinum moxastin	2-(1,1-diphenylethoxy)-*N*,*N*-dimethylethylamine $C_{18}H_{23}NO$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
myralactum myralact	2-(tetradecylamino)ethanol lactate $C_{18}H_{41}O_4N$
myrtecainum myrtecaine	2-[2-(6,6-dimethyl-2-norpinen-2-yl)ethoxy] triethylamine $C_{17}H_{31}NO$
namoxyratum namoxyrate	2-(dimethylamino)ethanol 2-(4-biphenylyl)butyrate $C_{20}H_{27}NO_3$
natamycinum natamycin	an antibiotic substance obtained from cultures of *Streptomyces natalensis*, or the same substance produced by any other means
neutramycinum neutramycin	an antibiotic substance (neutral macrolide) obtained from cultures of *Streptomyces rimosus*, or the same substance produced by any other means
nicametatum nicametate	2-(diethylamino)ethyl nicotinate $C_{12}H_{18}N_2O_2$
niceverinum niceverine	4-[(6,7-dimethoxy-1-isoquinolyl)methyl]pyrocatechol dinicotinate $C_{30}H_{23}N_3O_6$
nicodicodinum nicodicodine	dihydrocodeine 6-nicotinate $C_{24}H_{26}N_2O_4$
nifenazonum nifenazone	*N*-antipyrinylnicotinamide $C_{17}H_{16}N_4O_2$
nitrodanum nitrodan	3-methyl-5-[(*p*-nitrophenyl)azo]rhodanine $C_{10}H_8N_4O_3S_2$
nitroxolinum nitroxoline	5-nitro-8-quinolinol $C_9H_6O_3N_2$
norboletonum norboletone	13-ethyl-17-hydroxy-18,19-dinor-17α-pregn-4-en-3-one $C_{21}H_{32}O_2$
octamoxinum octamoxin	(1-methylheptyl)hydrazine $C_8H_{20}N_2$
opipramolum opipramol	4-[3-(5*H*-dibenz[*b*, *f*]azepin-5-yl)propyl]-1-piperazine ethanol $C_{23}H_{29}N_3O$
osalmidum osalmid	4′-hydroxysalicylanilide $C_{13}H_{11}NO_3$
oxacillinum oxacillin	3,3-dimethyl-6-(5-methyl-3-phenyl-2-isoxazoline-4-carboxamido)-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid $C_{19}H_{19}N_3O_5S$
oxamarinum oxamarin	6,7-bis[2-(diethylamino)ethoxy]-4-methylcoumarin $C_{22}H_{34}N_2O_4$
oxysonii iodidum oxysonium iodide	(2-hydroxyethyl)dimethylsulfoniumiodide α-phenylcyclohexane glycolate $C_{16}H_{27}IO_3S$
pararosanilini embonas pararosaniline embonate	tris(*p*-aminophenyl)methylium hemi[4,4′-methylenebis(3-hydroxy-2-naphthoate)] hydrate $[C_{19}H_{18}N_3 . \frac{1}{2}C_{23}H_{14}O_6] . H_2O$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
pecocyclinum pecocycline	*N*-{[4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,6,10,12,12a-pentahydroxy-6-methyl-1,11-dioxo-2-naphthacene carboxamido] methyl} nipecotic acid $C_{29}H_{36}N_3O_{10}$
peliomycinum peliomycin	an antibiotic substance obtained from cultures of *Streptomyces luteogriseus*, or the same substance produced by any other means
pengitoxinum pengitoxin	gitoxin pentaacetate $C_{51}H_{74}O_{19}$
perastinum perastin	1-[2-(diphenylmethoxy)ethyl]piperidine $C_{20}H_{25}NO$
perhexilinum perhexiline	2-(2,2-dicyclohexylethyl)piperidine $C_{19}H_{35}N$
pibecarbum pibecarb	phenacylpivalate $C_{13}H_{16}O_3$
piperamidum piperamide	4′-{4-[3-(dimethylamino)propyl]-1-piperazinyl}acetanilide $C_{17}H_{28}N_4O$
piposulfanum piposulfan	1,4-dihydracryloylpiperazine, dimethanesulfonate $C_{12}H_{22}N_2O_6S_2$
piritramidum piritramide	1′-(3-cyano-3,3-diphenylpropyl)-[1,4′-bipiperidine]-4′-carboxamide $C_{27}H_{34}N_4O$
polygelinum polygeline	a polymer of urea and polypeptides derived from denatured gelatin
porfiromycinum porfiromycin	carbamic acid, ester with 6-amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-1,5-dimethylazirino[2′,3′:3,4]pyrrolo[1,2-*a*] indole-4,7-dione $C_{16}H_{20}N_4O_5$
prazepinum prazepine	5,6-dihydro-N-[3-(dimethylamino)propyl]-11*H*-dibenz [*b*,*e*]azepine $C_{19}H_{24}N_2$
proadifenum proadifen	2-(diethylamino)ethyl 2,2-diphenylvalerate $C_{23}H_{31}NO_2$
propoxatum propoxate	(±)-propyl 1-(α-methylbenzyl)imidazole-5-carboxylate $C_{17}H_{25}N_3O$
propranololum propranolol	1-isopropylamino-3-(1-naphthyloxy)-2-propanol $C_{16}H_{21}NO_2$
proxazolum proxazole	5-[2-(diethylamino)ethyl]-3-(α-ethylbenzyl)-1,2,4-oxadiazole $C_{17}H_{25}N_3O$
puromycinum puromycin	3′-(α-amino-*p*-methoxyhydrocinnamamido)-3′-deoxy-*N*,*N*-dimethyladenosine $C_{22}H_{29}N_7O_5$
pytaminum pytamine	2-{α-[2-(dimethylamino)ethoxy]-2,6-diethylbenzyl}pyridine $C_{20}H_{28}N_2O$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
quillifolinum quillifoline	2-(*p*-chlorophenyl)-1,3,4,6,7,11b-hexahydro-9,10 dimethoxy-2*H*-benzo [a] quinolizine $C_{21}H_{24}ClNO_2$
quindecaminum quindecamine	4,4′-(decamethylenediimino)diquinaldine $C_{30}H_{38}N_4$
quinestradolum quinestradol	3-(cyclopentyloxy)estra-1,3,5(10)-triene-16α,17β-diol $C_{23}H_{32}O_3$
quingestanolum quingestanol	3-(cyclopentyloxy)-19-nor-17α-pregna-3,5-dien-20-yn-17-ol $C_{25}H_{34}O_2$
radioselenomethioninum (^{75}Se) radioselenomethionine (^{75}Se)	2-amino-4-(methylselenyl)butyric acid $C_5H_{11}NO_2Se$
relomycinum relomycin	an antibiotic substance obtained from cultures of various strains of *Streptomyces hygroscopicus*, or the same substance obtained by any other means
rifamidum rifamide	*N*,*N*-diethylrifamycin B amide $C_{43}H_{58}N_2O_{13}$
rolodinum rolodine	4-(benzylamino)-2-methyl-7*H*-pyrrolo[2,3-*d*]pyrimidine $C_{14}H_{14}N_4$
salverinum salverine	2-[2-(diethylamino)ethoxy]benzanilide $C_{19}H_{24}N_2O_2$
sancyclinum sancycline	4-(dimethylamino)-1,4,4a,5,5a,6,11,12a-octahydro-3,10,12,12a-tetra-hydroxy-1, 11-dioxo-2-naphthacenecarboxamide or 6-demethyl-6-deoxytetracycline $C_{21}H_{22}N_2O_7$
simaldratum simaldrate	magnesium aluminosilicate hydrate $Al_2Mg_2O_{11}Si_3\ nH_2O$
sorbimacrogoli lauras 300 sorbimacrogol laurate 300	monoesters of lauric acid and tris(polyethylene glycol 300)sorbitan ethers $C_{58}H_{114}O_{26}$ (nominal)
sorbimacrogoli palmitas 300 sorbimacrogol palmitate 300	monoesters of palmitic acid and tris(polyethylene glycol 300)sorbitan ethers $C_{62}H_{122}O_{26}$ (nominal)
sorbimacrogoli stearas 300 sorbimacrogol stearate 300	monoesters of stearic acid and tris(polyethylene glycol 300)sorbitan ethers $C_{64}H_{126}O_{26}$ (nominal)
sorbimacrogoli trioleas 300 surbimacrogol trioleate 300	triesters of oleic acid and tris(polyethylene glycol 300) sorbitan ethers $C_{100}H_{188}O_{28}$ (nominal)
sorbimacrogoli tristearas 300 sorbimacrogol tristearate 300	triesters of stearic acid and tris(polyethylene glycol 300)sorbitan ethers $C_{100}H_{194}O_{28}$ (nominal)
sorbitani lauras sorbitan laurate	monoesters of lauric acid and sorbitan $C_{18}H_{34}O_6$ (nominal)

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
sorbitani oleas sorbitan oleate	monoesters of oleic acid and sorbitan $C_{24}H_{44}O_6$ (nominal)
sorbitani palmitas sorbitan palmitate	monoesters of palmitic acid and sorbitan $C_{22}H_{42}O_6$ (nominal)
sorbitani sesquioleas sorbitan sesquioleate	mixture of monoesters and diesters of oleic acid and sorbitan $C_{33}H_{60}O_{8.5}$ (nominal)
sorbitani stearas sorbitan stearate	monoesters of stearic acid and sorbitan $C_{24}H_{46}O_6$ (nominal)
sorbitani trioleas sorbitan trioleate	triesters of oleic acid and sorbitan $C_{60}H_{103}O_8$ (nominal)
sorbitani tristearas sorbitan tristearate	triesters of stearic acid and sorbitan $C_{60}H_{114}O_8$ (nominal)
spirilenum spirilene	8-[4-(*p*-fluorophenyl)-3-pentenyl]-1-phenyl-1,3,8-triazaspiro[4,5]decan-4-one $C_{24}H_{28}FN_3O$
sulclamidum sulclamide	4-chloro-3-sulfamoylbenzamide $C_7H_7ClN_2O_3S$
sulfanitranum sulfanitran	4′-[(*p*-nitrophenyl)sulfamoyl]acetanilide $C_{14}H_{13}N_3O_5S$
sulfomyxinum sulfomyxin	penta-(*N*-sulfomethyl)polymyxin B $C_{61}H_{109}N_{16}O_{29}S_5$
symclosenum symclosene	trichloro-*s*-triazine-2,4,6(1*H*,3*H*,5*H*)-trione $C_3Cl_3N_3O_3$
tenylidonum tenylidone	2,6-bis(2-thenylidene)cyclohexanone $C_{16}H_{14}OS_2$
testolactonum testolactone	1,2,3,4,4a,4b,7,9,10,10a-decahydro-2-hydroxy-2,4b-dimethyl-7-oxo-1-phenanthrene propionic acid δ-lactone $C_{19}H_{24}O_3$
tiametonii iodidum tiametonium iodide	(thiodiethylene)bis[ethyldimethylammonium iodide] $C_{12}H_{30}I_2N_2S$
tiamiprinum tiamiprine	2-amino-6-[(1-methyl-4-nitroimidazol-5-yl)thio]purine $C_9H_8N_8O_2S$
tipepidinum tipepidine	3-(di-2-thienylmethylene)-1-methylpiperidine $C_{15}H_{17}NS_2$
tofenacinum tofenacin	*N*-methyl-2-[(*o*-methyl-α-phenylbenzyl)oxy]ethylamine $C_{17}H_{21}NO$
tramazolinum tramazoline	2-(1,2,3,4-tetrahydro-1-naphthylamino)-2-imidazoline $C_{13}H_{17}N_3$
triamcinoloni hexacetonidum triamcinolone hexacetonide	9-fluoro-11β,16α,17,21-tetrahydroxypregna-1,4-diene-3,20-dione cyclic 16,17 acetal with acetone, 21-(3,3-dimethylbutyrate) $C_{30}H_{41}FO_7$

Proposed International Non-Proprietary Name (Latin, English)	*Chemical Name or Description and Molecular Formula*
triampyzinum triampyzine	2-(dimethylamino)-3,5,6-trimethylpyrazine $C_9H_{15}N_3$
trimetozinum trimetozine	4-(3,4,5-trimethoxybenzoyl)morpholine $C_{14}H_{19}NO_5$
troclosenum kalicum potassium troclosene	dichloro-*s*-triazine-2,4,6(1*H*,3*H*,5*H*)-trione potassium derivative $C_3Cl_2KN_3O_3$
tyromedanum tyromedan	2-diethylaminoethyl[3,5-diiodo-4-(3-iodo-4-methoxyphenoxy)phenyl] acetate $C_{21}H_{24}I_3NO_4$
visnadinum visnadine	3,4,5-trihydroxy-2,2-dimethyl-6-chromanacrylic acid δ-lactone 4-acetate 3(2-methylbutyrate) $C_{21}H_{24}O_7$
xenytropii bromidum xenytropium bromide	8-(*p*-phenylbenzyl)atropinium bromide $C_{30}H_{32}BrNO_3$
xylocoumarolum xylocoumarol	4-hydroxy-3-(3,5-xylyl)coumarin $C_{17}H_{14}O_3$
xyloxeminum xyloxemine	2-[2-(di-2,6-xylylmethoxy)ethoxy]-*N*,*N*-dimethyl ethylamine $C_{23}H_{33}NO_2$

Annex

PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NON-PROPRIETARY NAMES FOR PHARMACEUTICAL PREPARATIONS *

The following procedure shall be followed by the World Health Organization in the selection of recommended international non-proprietary names for pharmaceutical preparations, in accordance with the World Health Assembly resolution WHA3.11:

1. Proposals for recommended international non-proprietary 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 Non-proprietary Names ", appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical preparation 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 non-proprietary 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.

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

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

B. Such notice shall:

(i) set forth the name under consideration;

(ii) identify the person who submitted a proposal for naming the substance, if so requested by such person;

(iii) identify the substance for which a name is being considered;

(iv) set forth the time within which comments and objections will be received and the person and place to whom they should be directed;

(v) state the authority under which the World Health Organization is acting and refer to these rules of procedure.

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

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

5. A formal objection to a proposed name may be filed by any interested person within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization*.

A. Such objection shall:

(i) identify the person objecting;

(ii) state his interest in the name;

(iii) set forth the reasons for his objection to the name proposed.

6. Where there is a formal objection under article 5, the World Health Organization may either reconsider the proposed name or use its good offices to attempt to obtain withdrawal of the objection. Without prejudice to the consideration by the World Health Organization of a substitute name or names, a name shall not be selected by the World Health Organization as a recommended international non-proprietary 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 non-proprietary name.

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

A. request that it be recognized as the non-proprietary name for the substance; and

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

GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NON-PROPRIETARY NAMES FOR PHARMACEUTICAL PREPARATIONS *

1. Names should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names already in common use.

2. The name for a substance belonging to a group of pharmacologically related substances should show this relationship. The name should be free from any anatomical, physiological, pathological or therapeutic suggestion.

The above primary principles are to be implemented by utilization of the following secondary principles.

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

4. Syllables such as "methylhydro" and "chlor" should preferably be abbreviated (to "medro" and "clo", etc.).

* Revised text proposed by the Sub-Committee on Non-Proprietary Names of the Expert Committee on Specifications for Pharmaceutical Preparations (unpublished report WHO/Pharm/421 65) and submitted to the Executive Board of the World Health Organization at its thirty-sixth session

5. In the naming of substances which are acids, existing names generally used in chemistry which include the word " acidum " (" acid ") should be used, if the name is adequate for practical use in therapy and pharmacy. In other circumstances, the substance should be named by a single word and not by a name which includes the word " acid ". Where the word " acid " is not used in the name, as is customary in the penicillin series, a salt should preferably be named without modification of the parent acid name, e.g., " oxacillin " and " oxacillin sodium ".

6. Names 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). Exceptions may have to be made for those cases in which pharmacological activity may reside in both parts of the salt or ester.

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.

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

8. To facilitate translation and pronunciation " f " should preferably be used instead of " ph ", " t " instead of " th " and " e " instead of " ae " or " oe ".

9. 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.

10. Group relationship in names (see item 2) should preferably be shown by using common syllables in the following list. Where a syllable or a group of syllables is shown without any hyphens it may be used anywhere in the name. The syllable, or group of syllables, should, if possible, be used only for such substances.

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

At the end of the list are general chemical syllables. Should they come into conflict with other suggested syllables, the suffix conveying the best information should be used.

Latin	*English*	*French*	
-andr- or -stan- or -ster-	-andr- or -stan- or -ster-	-andr- or -stan- or -ster-	steroids, androgenic
-apol-	-apol-	-apol-	polysulfonic anticoagulants
-arolum	-arol	-arol	anticoagulants
-bamatum	-bamate	-bamate	tranquillizers of the propanediol and pentanediol series
barb	barb	barb	barbituric acids
bol	bol	bol	anabolic steroids
-cainum	-caine	-caïne	local anaesthetics
cef-	cef-	cef-	antibiotics with cefalosporanic acid nucleus
-cillinum	-cillin	-cilline	penicillins: derivatives of carboxy-6-amino-penicillanic acid
-cort-	-cort-	-cort-	steroids, glucocorticoids and mineralocorticoids, other than prednisolone derivatives
-crinum	-crine	-crine	acridine derivatives, antimicrobial
-curinum	-curine	-curine	curare-like drugs
-cyclinum	-cycline	-cycline	antibiotics, tetracycline derivatives
-dionum	-dione	-dione	antiepileptics derived from oxazolidinedione
-estr-	-estr-	-estr-	estrogenic drugs
-gest-	-gest-	-gest-	steroids, progestative
gly	gly	gly	antidiabetics, oral
io-	io-	-io	iodine contrast

Latin	*English*	*French*	
iod	iod	iod	iodine-containing compounds not used as contrast media
or -io-	or -io-	or -io-	
-mer-	-mer-	-mer-	mercury-containing drugs, antimicrobial or diuretic
mito-	mito-	mito-	nucleotoxic, antineoplastic agents
-moxinum	-moxin	-moxine	monoamine, oxidase inhibitors
-mycinum	-mycin	-mycine	antibiotics, produced by *Streptomyces* strains
nifur-	nifur-	nifur-	5-nitrofuran derivatives
-orexum	-orex	-orex	anorexigenic agents
-praminum	-pramine	-pramine	dibenzepine, compounds of the imipramine type
-quinum	-quine	-quine	quinoline derivatives
-serpinum	-serpine	-serpine	derivatives of *Rauwolfia* alkaloids
-stigminum	-stigmine	-stigmine	anticholinesterases
sulfa-	sulfa-	sulfa-	sulfonamides, used as antimicrobials
-tizidum	-tizide	-tizide	diuretics which are thiazide derivatives
-toinum	-toin	-toïne	antiepileptics which are hydantoin derivatives
-verinum	-verine	-verine	spasmolytics with a papaverine-like action
-inum	-ine	-ine	alkaloids and organic bases
-onum	-one	-one	ketones
-onium	-onium	-onium	quaternary amines