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 (see Annex 1, page 109), 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, Proposed Names may be forwarded by any person to the Pharmaceutical Section of the World Health Organization within four months from 1 April 1958.

The inclusion of a name in this list 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 61

rroposea international
Non-Proprietary Name
(Latin, English)
(Latin, Lugusu)

Chemical Name or Description

(Latin, English) acenocoumarolum

 $3-[a-(4-nitrophenyl)-\beta-acetylethyl]-4-hydroxycoumarin$

acenocoumarol acepromazinum

2-acetyl-10-(3-dimethylaminopropyl) phenothiazine

acepromazine

2-acetamido-1,3,4-thiadiazole-5-sulfonamide

acetazolamidum acetazolamide

ethylenediamino-N, N, N, 'N'-tetra-acetic acid

acidum edeticum edetic acid

-

aldosteronum aldosterone

18-oxo-corticosterone

ambenonii chloridum

N,N'-bis-(2-diethylamunoethyl)-oxamide bis-2-chlorobenzyl chloride

ambenonium chloride ambucainum

 β -diethylaminoethyl 4-amino-2-butoxybenzoate

ambucaine

A / 12 1 1 1 2 A /

ambucetamidum ambucetamide

2-(di-n-butylamino)-2-(p-methoxyphenyl)-acetamide

aminometradinum aminometradine 1-allyl-3-ethyl-6-amino-2, 4-dioxo-1,2,3,4-tetrahydropyrimidine

amiphenazolum

2.5-diamino-4-phenylthiazole

amiphenazole

¹ Other lists of proposed international non-proprietary names can be found in Chron 33 ld Hlds Org., 1953, 7, 297, 1954, 8, 216 and 313, 1956, 10, 28, 1957, 11, 231,

Chemica Name of Description

amisometradinum

6-amino-1,2,3,4-tetrahydro-3-methyl-1-methylallylpyrimidine-2,4-dione

amisometradine

3-(\beta-diethylaminoethyl)-3-phenyl-benzofuran-2-one

amolanonum amolanone

azacyclonolum a,a-diphenyl-a-piperid-4-yl-methanol

azacyclonol

bemegridum 4-ethyl-4-methyl-2,6-dioxo-piperidine

bemegride

benactyzinum 2-diethylaminoethylbenzilate

benactyzine

benzonatatum 2-(ω-methoxyoctaethyleneoxy)-ethyl p-butylaminobenzoate

benzonatate

betazolum $3-(\beta-\text{aminoethyl})$ -pyrazole

betazole

bietamiyerinum 2-diethylaminoethyl a-phenyl-a-piperidinoacetate

bietamiyerine

busulfanum 1,4-dimethanesulfonoxybutane

busulfan

calcii glucoheptonas calcium hexahydroxyheptonate

calcium glucoheptonate

captodiamum p-butylthiodiphenylmethyl-2-dimethylaminoethyl sulfide

captodiame

carbazochromi salicylas adrenochrome monosemicarbazone sodium salicylate complex

carbazochrome salicylate

chlorambucilum p-di-(2-chloroethyl)-aminophenylbutyric acid

chlorambucii

chlordimorinum 4-[γ -(4-morpholino) propoxy]-3-chlorobiphenyl

chlordimorine

chlorhexidinum 1,6-bis-(p-chlorophenyldiguanido)-hexane

chlorhexidine

chlorisondamini chloridum 4,5,6,7-tetrachloro-2-(trimethylammonium-ethyl)-N-methyl-

chlorisondamine chloride isomdoline dichloride

chloroprocainum β -diethylaminoethyl 2-chloro-4-aminobenzoate chloroprocaine

chlorotrianisenum chlorotrianisene

tri-(p-methoxyphenyl)-chloroethylene

chloroxylenolum 4-chloro-3,5-dimethylphenol

chloroxylenol

cinnofuradionum 4-tetrahydrofurfuryl-1,2-(benzo(c)-cinnolino)-pyrazolidine-3,5-dione

cinnofuradione

clidinii bromidum I-methyl-3-benziloyloxyquinuclidinium bromide

clidinium bromide

corticotrophinum-zinci hydroxydum

corticotrophin-zinc hydroxide

a preparation of purified corticotrophin adsorbed on zinc hydroxide

crotamitonum crotamiton

N-ethyl-N-o-toluyl crotonamide

Chemical Name or Description

cryofluoranum cryofluorane 1,2-dichloro-1,1,2,2-tetrafluoroethane

cyclomethycainum cyclomethycaine

3-(2-methylpiperidino)-propyl p-cyclohexyloxybenzoate

cycloserinum cycloserine 4-amino-isoxazolidin-3-one

demecolcinum demecolcine deacetylmethylcolchicine

deserpidinum deserpidine

11-desmethoxyreserpine

dextromoramidum dextromoramide

d-3-methyl-2,2-diphenyl-4-morpholinobutyrylpyrrolidine

dichlorophenum

di-(5-chloro-2-hydroxyphenyl) methane

dichlorophen dicycloverinum dicycloverine

β-diethylaminoethyl cyclohexyl-cyclo-hexane-carboxylate

dimethoxanatum dimethoxanate

 β -dimethylaminoethoxyethyl phenothiazine-10-carboxylate

dioxethedrinum dioxethedrin

1-(3,4-dihydroxyphenyl)-2-ethylamino-propan-1-o1

diphenadionum diphenadione 2-diphenylacetyl-1,3-indandione

diphenylpyralinum diphenylpyraline

N-methylpiperidyl-4-benzhydryl ether

dipyrocetylum dipyrocetyl

2,3-diacetoxybenzoic acid

dycloninum dyclonin<u>e</u>

p-butoxy-3-piperidinopropiophenone

ecothiopati iodidum ecothiopate iodide

o,o-diethyl s-(2-trimethylammonium ethyl) phosphorothiolate iodide

ecothiopate iodide endomycinum

an antibiotic substance obtained from cultures of Streptomyces endus, or the same substance produced by any other means

endomycin etamiphyllinum

7-(2-diethylaminoethyl)-theophyllin

etamiphyllin ethinamatum

l-ethynyl*cyclo*hexyl carbamate

ethinamate ethotoinum

3-ethyl-5-phenylhydantoin

ethotoin ethylphenacemidum ethylphenacemide

phenylethylacetylurea

ethypiconum ethypicone

4,6-dioxo-3-methyl-5,5-diethyl-1,4,5,6-tetrahydropyridine

etoxeridinum etoxeridine

1-[2-(2-hydroxyethoxy)-ethyl]-4-phenylpiperidine-4-carboxylic acid.

ethyl ester

florantyronum florantyrone

γ-fluoranthen-8-yl-γ-oxobutyric acid

Chemical Name or Description

fludrocortison: acetas fludrocortisone acetate

9-a-fluoro-17-hydroxycorticosterone 21-acetate

fluoxymesteronum fluoxymesterone 9- α -fluoro-11- β -17- β -dihydroxy-17- α -methylandrost-4-ene-3-one

forminitrazolum

2-formamido-5-nitrothiazole

glucurolactonum glucurolactone

γ-lactone of p-glucofuranuronic acid

glutethimidum glutethimide 3-ethyl-3-phenyl-2,6-dioxo-piperidine

halothanum halothane hexetidinum

hexetidine

2-bromo-2-chloro-1,1,1-trifluoroethane

hexocyclii methylsulfas hexocyclium methylsulfate bis-1,3-(β -ethylhexyl)-5-methyl-5-aminohexahydropyrimidine

N-(β -cyclohexyl- β -hydroxy- β -phenylethyl)-N'-dimethylpiperazinium

histapyrrodinum histapyrrodine methylsulfate
N-pyrrolidylethyl-N-phenylbenzylamine

homarylaminum homarylamine

N-methyl-5-aminoethyl-1,2-methylenedioxybenzene

hydrocortamati hydrochloridum hydrocortamate hydrochloride

17-hydroxycorticosterone 21-diethylaminoacetate hydrochloride

hydroxyzinum hydroxyzine $I-(\emph{p-}chlorobenzhydryl)-4-[2-(2-hydroxyethoxy)-ethyl]\ piperazine$

injectio insulini zinci globinati globin zinc insulin injection

a sterile buffered suspension of insulin with zinc chloride and globin

injectio insulini zinci protaminati protamine zinc insulin injection

a sterile buffered suspension of insulin with zinc chloride and protamine

isometheptenum isometheptene isothipendylum

2-methylamino-6-methylhept-5-ene

isothipendyl lauralkonii chloridum 10-(2-dimethylamino-2-methylethyl)-1-azaphenothiazine

lauralkonium chloride

p-laurylphenyloxyethyl-benzyl-dimethylammonium chloride

leucovorinum leucovorin levomoramidum levomoramide

5-formyl-5,6,7,8-tetrahydropteroyl-glutamic acid

liothyroninum liothyronine 1-3-methyl-2,2-diphenyl-4-morpholinobutyrylpyrrolidine

magnesii aluminii glycinas magnesium aluminium glycinate 1-4-(4-hydroxy-3-iodophenoxy)-3,5-diiodophenylalanine

mecamylaminum mecamylamine hydroxy aluminium magnesium amino-acetate

mephenterminum mephentermine 3-methylaminoisocamphane

N-a-a-trimethyl- β -phenylethylantine



Chemical Name or Description

meprobamatum meprobamate

mercaptopurinum mercaptopurine

mesuximidum mesuximide

methallenestrilum methallenestril methituralum methitural methocidinum methocidin

methopromazinum methopromazine methoxyphedrinum methoxyphedrine

methylphenidatum methylphenidate methyprylonum methyprylon midamalinum midamaline

monobenzonum monobenzone

morpheridinum morpheridine

natrii calcii edetas sodium calcium edetate natrii dioctylis sulfosuccinas

sodium dioctyl sulfosuccinate nattii diprotrizoas

sodium diprotrizoate natrii radiochromas (⁵¹Cr) sodium radiochromate (⁵¹Cr)

natrii radiophosphas (32P) sodium radiophosphate (32P)

nidroxyzonum nidroxyzone

nitricholinii perchloras nitricholinium perchlorate

notethandrolonum norethandrolone norethisteronum norethisterone

novobiocinum novobiocin 2-methyl-2-propyl-propane-1,3-diol dicarbamate

6-purinethiol

1,3-dimethyl-3-phenyl-2,5-dioxo-pyrrolidine

3-(6-methoxy-2-naphthyl)-3-ethyl-2,2-dimethylpropionic acid

5-methylthioethyl-5-(2-pentyl)-2-thiobarbituric acid

hydroxymethylgramicidin

2-methoxy-10-(3-dimethylaminopropyl) phenothiazine

1-p-methoxyphenyl-1-methylamino-propan-1-one

a-phenyl-a-(2-piperidyl)-methyl acetate

3,3-diethyl-5-methylpiperidine-2,4-dione

N-(5-chloro-2-benzimidazolylmethyl)-N-phenyl-N', N'-dimethyl-

ethylene-diamine

monobenzyl ether of hydroquinone

morpholinoethylnorpethidine

calcium chelate of the disodium salt of ethylenediamino-N,N,N',N'-

tetra-acetic acid

di-β-ethylhexyl sodium sulfo-succinate

sodium 3,5-dipropionylamino-2,4,6-triiodobenzoate

anionic hexavalent radioactive chromium (51Cr) in the form of sodium

chromate

radioactive phosphorus in the form of a mixture of sodium dihydrogen -

phosphate and disodium hydrogen phosphate

5-nitro-2-furaldehyde 2-(2-hydroxyethyl) semicarbazone

2-hydroxyethyltrimethylammonium nitric acid ester perchlorate

17-a-ethyl-17-hydroxy-19-nor-4-androsten-3-one

 $17-\alpha$ -ethinyl-19-nor-4-androsten-17- β -ol-3-one

an antibiotic substance obtained from cultures of Streptomyces sphe-

roides, or the same substance produced by any other means

Chemical Name or Description

nystatinum nystatin

oleandomycinum oleandomycin

ostreogrycinum ostreogrycin oxeladinum

oxeladin oxycinchophenum oxycinchophen

pentacynii chloridum pentacynium chloride

pentoxyverine pentoxyverine

petrichloralum petrichloral

phenaglycodolum phenaglycodol

phenamazolinum phenamazoline phenmetrazinum

phenmetrazine phenobutiodilum phenobutiodil

phenoxybenzaminum phenoxybenzamine

phenoxymethylpenicillinum phenoxymethylpenicillin

phensuximidum phensuximide phenythilonum

phenythilone

phenyltoloxamine phenyltoloxamine

phthalylsulfamethizolum phthalylsulfamethizole

pimetremidum pimetremide

pipenzolati bromidum pipenzolate bromide

piperazini calcii edetas piperazine calcium edetate

piperidolatum piperidolate an antibiotic substance obtained from cultures of Streptomyces noursel, or the same substance produced by any other means

or the same substance produced by any other means

an antibiotic substance obtained from cultures of *Streptomyces anti*bioticus, or the same substance produced by any other means

an antibiotic substance obtained from cultures of Streptomyces ostreo-

griseus, or the same substance produced by any other means

diethylaminoethoxyethyl-a,a-diethyl-phenyl acetate

3-hydroxy-2-phenylquinoline-4-carboxylic acid

N-[N'-(5-cyano-5,5-diphenylpentyl)-N'-dimethylammoniumethyl]-

N-methylmorpholinium dichloride

2-(2-diethylaminoethoxy)-cthyl 1-phenyl-cyclopentane-1-carboxylate

pentaerythritol chloral

2-p-chlorophenyl-3-methylbutane-2,3-diol

2-anilinomethylimidazoline

2-phenyl-3-methyl-morpholine

a-(-2,4,6-triiodophenoxy)-butyric acid

N-phenoxyisapropyl-N-benzyl-β-chloroethylamine

an antibiotic in which the benzyl group of benzylpenicillin has been

replaced by a phenoxymethyl group

1-methyl-3-phenyl-2,5-dioxo-pyrrolidine

2-ethyl-2-phenyl-thiamorpholine-3,5-dione

2-(o-benzylphenoxy)-ethyldimethylamine

5-phthalylsulfanilamido-2-methyl-1,3,4-thiadiazole

N-methyl-N-(β-picolyl)-tropamide

N-methyl-N-ethyl-3-piperidinium benzilate bromide

a chelate produced by reacting edetic acid with calcium carbonate and

piperazine

N-ethylpiperid-3-yl diphenylacetate

pipradrolum pipradrol (3)

polymyxinum B polymyxin B

prednisolonum prednisolone prednisonum prednisone

(3)

probenecidum probenecid

prochlorperazinum prochlorperazine

prodeconii bromidum prodeconium bromide

promazinum promazine

promoxolanum promoxolane

propanocainum propanocaine

propazolamidum propazolamide

propylhexedrinum propylhexedrine

prothipendylum prothipendyl (3)

proxymetacainum proxymetacaine pyridostigminum

pyridostigminum pyridostigmin pyrvinii chloridum

pyrvinii chloridum pyrviniium chloride (3)

racemoramide
rescinnaminum
rescinnamine

spiramycinum (3)

streptodornasum streptodornase (3)

streptokinasum streptokinase 3

suspensio insulini cum zinco insulin zinc suspension

 α , α -diphenyl- α -piperid-2-yl-methanol

an antibiotic substance obtained from cultures of Bacillus polymyxor, or the same substance produced by any other means

41-dehydro-hydrocortisone

∆¹-dehydrocortisone

p-(di-n-propylsulfamoyl) benzoic acid

1-[3-(2-chloro-10-phenothiazinyl)-propyl]-4-methylpiperazine

N,N,N',N'-tetramethyl-N-N'-bis-(carbo-propoxymethyl)-2,13-dioxatetradecane-1,14-diammonium dibromide 10-(3-dimethylaminopropyl) phenothiazine

2,2-diisopropyl-4-hydroxymethyl-1,3-dioxolane

3-diethylamino-1-phenylpropyl benzoate

2-propionamido-1,3,4-thiadiazole-5-sulfonamide

1-cyclohexyl-2-methylaminopropane

10-(3-dimethylaminopropyl)-1-azaphenothiazine

 β -diethylaminoethyl-3-amino-4-propoxy-benzoate

dimethylcarbamic ester of 1-methyl-3-hydroxpyridine

 $\hbox{$6$-dimethylamino-2-[2-(2,5-dimethyl-1-phenyl-3-pyrryl)-vinyl]-l-methyl-quinolinium chloride } \\$

d,1-3-methyl-2,2-diphenyl-4-morpholinobutyrylpyrrolidine

3,4,5-trimethoxycinnamic acid ester of methyl reserpate

an antibiotic substance obtained from cultures of *Streptomyces ambofaciens*, or the same substance produced by any other means

enzyme obtained from cultures of various strains of *Streptococcus hemolyticus* and capable of hydrolysing desoxyribonucleoproteins

co-enzyme obtained from cultures of various strains of Streptococcus hemolyticus and capable of changing plasminogen into plasmin

an antibiotic substance composed of several related components obtained from cultures of *Streptomyces variabilis*

a sterile buffered mixture of insulin zinc suspension (amorphous) (30 per cent.) and insulin zinc suspension (crystalline) (70 per cent.)

Chemical Name or Description

tetryzolinum 2-(1,2,3,4-tetrahydronaphth-1-yl)-2-imidazoline

tetryzoline

thenalidinum 1-methyl-4-[N-(2-thenyl)-anilino]-piperidine

thenalidine

thyrotrophinum thyrotrophic hormone

thyrotrophin

tolbutamidum N-p-tolylsulfonyl-N'-n-butyl-carbamide

tolbutamide

tolproninum 1-(1,2,3,6-tetrahydropyridino)-3-o-tolyloxyptopan-2-ol

tolpronine

tridihexethyli iodidum 3-hydroxy-3-phenyl-3-cyclohexyl-propyltriethylammonium iodide

tridihexethyl iodide

trimeperidinum 1,2,5-trimethyl-4-phenyl-4-propionoxypiperidine

trimeperidine

trimetaphani camphoisulfonas . id-3,4-(1,3-dibenzyl-2-keto-imidazolidino)-1,2-trimethylene thiophanium trimetaphan camphorsulfonate

d-camphorsulfonate

triprolidinum trans-1-(pyrtd-2-yl)-3-pyrrolidino-1-p-tolylprop-1-ene

triprolidine

vancomycinum an antibiotic substance obtained from cultures of Streptomyces orien-

vancomycin talis, or the same substance produced by any other means

verazidum 1-isonicotinoyl-2-veratrylidene hydrazine

verazide

zoxazolaminum 2-amino-5-chlorobenzoxazole

zoxazolamine

Annex 1

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 Pharmacopoeta 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.1 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.

^{*} Text adopted by the Executive Board in resolution EB15.R7 (Off. Rec. Wild Hith Org., (0, 3) See Annex 2, page 111.

- 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 Chromcle of the World Health Organization and by letter to Member States and to national pharmacopoeta 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.
- 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:
 - (1) 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.

Annex 2

GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NON-PROPRIETARY NAMES

- 1. Names should, preferably, be free from any anatomical, physiological, pathological or therapeutic suggestion.
- 2. An attempt should first be made to form a name by the combination of syllables in such a way as to indicate the significant chemical groupings of the compound and/or its pharmacological classification. Preference should be given to the following syllables:

Latin	Englisli	French	
inum	ine	ine	for alkaloids and organic bases
inum	in	ine	for glycerides and neutral principles
olum	ol	ol	for alcohols and phenois (-OH group)
alum	al	al	for aldehydes
onum	one	one	for ketones and other substances containing the CO group
enum	ene	ène	for unsaturated hydrocarbons
anum	ane	ane	for saturated hydrocarbons
cainum	caine	caine	for local anaesthetics
mer	mer	mer	for mercurial compounds
sulfonum	sulfone	sulfone	for sulfone derivatives
quinum	quine	quine	for antimalarial substances containing a quinoline group
crinum	crine	crine	for antimalarial substances containing an acridine group
sulfa	sulfa	sulfa	for derivatives of sulfanilamide
dionum	dione	dione	for anti-epileptics derived from oxazolidinedione
toinum	toin	toïne	for anti-epileptics derived from hydantoin
stigminum	stigmine	stigmine	for anticholinesterases

- 3. 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 use,
- 4. The addition of a terminal capital letter or number should be avoided as far as possible.
- 5. Names proposed by the person discovering or first developing and marketing a pharmaceutical preparation, or already officially adopted in any country, or used in the national pharmacopoeias, or in works of reference such as "New and Non-official Remedies", should receive preferential consideration.