INTERNATIONAL STANDARD

ISO 257

Third edition 2004-06-15

Pesticides and other agrochemicals — Principles for the selection of common names

Produits phytosanitaires et assimilés — Principes pour le choix des noms communs



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2004

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

Contents Page Forewordiv Introductionv 1 Scope......1 2 3 Terms and definitions......1 4 5 5.1 5.2 Purity of chemicals4 5.3 5.4 Isomers and isomeric mixtures4 5.5 Additional requirements......5 5.6 6 Style of writing or printing common names......6 Annex A (informative) Procedure for the establishment of common names for pesticides and

Annex B (informative) System for constructing common names for isomers and isomer mixtures

17.77.71.77.71.11

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 257 was prepared by Technical Committee ISO/TC 81, Common names for pesticides and other agrochemicals.

This third edition cancels and replaces the second edition (ISO 257:1988), which has been technically revised.

Introduction

This International Standard contains principles for the construction of common names for pesticides and other agrochemicals. The intention is to create short, distinctive, easily pronounced names, which will be common to all languages, as far as is possible. This International Standard contains recommended names for common ions and radicals, as well as recommended stems for different chemical structures. Therefore the common name should reflect any relationship with chemicals of a similar structure. However, it is important to avoid confusion between common names and existing names, whether they are other common names, trade names or chemical names. Recommendations on how to name isomers, salts, esters, etc. are also included.

These principles are defined for the guidance of proposers of such common names and for the operation of ISO/TC 81.

Pesticides and other agrochemicals — Principles for the selection of common names

1 Scope

This International Standard gives principles for creating common names for pesticides and other agrochemicals. These principles are defined for the guidance of proposers of such common names.

The procedure for the establishment of common names is given in Annex A.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1750, Pesticides and other agrochemicals — Common names

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

common name

name freely available for common use in identifying a chemical substance without recourse to its systematic chemical name

4 Purpose of common names

- **4.1** The purpose of a common name (see ISO 1750) is to provide a short, distinctive, easily pronounced name for a substance, the full chemical name of which is too complex for convenient use in science, commerce and official regulations.
- **4.2** Because a common name has to be freely available for use in describing the substance for which it has been coined, it should not be permitted to become a privately owned trade mark with respect to identical or similar goods.
- **4.3** In order to achieve the desired goal of creating a common name that is generally acceptable internationally, rejection of any proposed common name by individual ISO Member Bodies [see A.3.1.3 and A.4.1.1 e)] should only be based on serious grounds and then only after every possible effort has been made to overcome the impediment to local acceptability.

Principles for selection

General 5.1

- No substance should be given a common name if its chemical name is reasonably short and 5.1.1 distinctive (e.g. metaldehyde, carbon tetrachloride).
- The identity of a common name should be maintained in all languages, subject to necessary linguistic variations.
- Common names should be as short as is practicable, but should not include single letters and/or 5.1.3 numerals except as structural qualifiers.
- While the formation of common names from initials and numerals is no longer acceptable, exceptions (e.g. MCPA, 2,4,5-T) have been made for substances which are so well known by such names that to use other names would cause confusion.
- Common names should be distinctive in sound and spelling and should be neither difficult to pronounce nor liable to confusion with existing names (see 5.5.1).
- To facilitate international spelling and translation, "f" instead of "ph" should be used in common names; the suffix "-phenyl" in the names of esters, however, should retain its normal spelling. Similarly "t" should be used instead of "th" with the permitted exceptions "thrin" and "thiuron". Methyl and ethyl esters retain their normal spelling.

5.2 Salts and esters

5.2.1 Simple salts

The common name for a simple salt should be that of the parent acid, alcohol or base. In the case of an acid or alcohol, the complementary cation may be given as a hyphenated suffix and, in the case of a base, the complementary anion may be stated. A quaternary ammonium or phosphonium salt should be treated as a salt of a base.

EXAMPLES:

- alloxydim-sodium,
- bromoxynil-potassium,
- imazalil nitrate,
- chlormequat chloride.

5.2.2 Simple esters

Similarly, where the substance is a simple ester or other derivative, and the existence of biological activity derives from the parent form, the common name should be that of the parent. This should be taken as the case if other esters or derivatives are known, or are expected, to exhibit similar biological activity.

The complementary esterifying radical may be indicated.

EXAMPLES:

- mecoprop-methyl,
- dinoseb acetate.

5.2.3 Complex esters and salts

If neither moiety of an ester or salt is simple, the common name should be that of the whole molecule.

EXAMPLES:

- bupirimate,
- decafentin.

5.2.4 Recommended names for ions and radicals

Recommended names have been developed for some of the more commonly occurring ions and radicals. These are listed in Table 1 and should be used in place of the chemical names.

Table 1 — Names for ions and radicals

Recommended name	Chemical name
albesilate	alkylbenzenesulfonate
butometyl	2-butoxy-1-methylethyl
butotyl	2-butoxyethyl
diclexine	dicyclohexylammonium
dimolamine	(2-hydroxyethyl)dimethylammonium
diolamine	bis(2-hydroxyethyl)ammonium
ethadyl	ethylene (ethane-1,2-diyl)
etotyl	2-ethoxyethyl
isoctyl	"iso-octyl" (mixed C-8 alkyl radical)
meptyl	1-methylheptyl
metilsulfate	methylsulfate
mexyl	1-methylhexyl
olamine	2-hydroxyethylammonium
tefuryl	tetrahydrofurfuryl
trimesium	trimethylsulfonium
trolamine	tris(2-hydroxyethyl)ammonium

Traditional names for radicals, as retained in Reference [2], should be used in place of systematic or semi-systematic names that include locants.

EXAMPLES:

- butyrate,
- dimethylammonium,
- fumarate,
- isobutyl,
- isopropyl,
- isopropylammonium,

_	methylammonium,
	triethylammonium.

5.2.5 Multiplying affixes

Multiplying affixes should be used when the parent is a dibasic (or higher) acid, alcohol or base and more than one possible derivative could be produced. Affixes should also be used in any other case where there is a need to avoid ambiguity.

EXAMPLES:

_	chlorthal-dimethyl,
_	chlorthal-monomethyl,
_	diquat dibromide,
_	iminoctadine triacetate,
_	streptomycin sesquisulfate

thiosultap-disodium.

It is not normally necessary to use multiplying affixes with the parent substance.

EXAMPLES:

- dalapon-magnesium [2:1 ratio],
- fosetyl-aluminium [3:1 ratio],
- oxpoconazole fumarate [2:1 ratio].

5.3 Purity of chemicals

Although common names should be given to chemical entities of known structure, in exceptional cases they may be given to mixtures whose composition is constant for all practical purposes and whose concentrations of active components can be specified.

Such exceptional cases may include:

- a) a reaction product mixture, provided that the concentrations of the main active components fall within acceptable limits about specified proportions;
- a polymeric reaction product mixture, provided that the concentrations of the main active component polymers (the repeating units of which are specified) in the reaction product mixture are known and are constant to within acceptable limits;
- c) an extract or derivative of a natural product (from animal, plant, fungal or bacterial sources), the composition of which is constant within acceptable limits.

5.4 Isomers and isomeric mixtures

5.4.1 The following special considerations should be taken into account when coining names for mixtures of isomers.

5.4.2 The common name for a substance that can exist in enantiomeric (optically isomeric) forms owing to a single asymmetric centre should be assigned, without affixes, either to the racemate or to one of the enantiomers, depending on the form for which the common name is first required. If a common name is required subsequently for another stereochemical variant, it should be the original common name with the appended suffix "-MP", "-M" or "-P", for the racemate, the (-) isomer or the (+) isomer, respectively.

If more than one chiral centre is present, it may be necessary to adopt special measures, such as a system based on appropriate modification of the original common name, for example that developed for the synthetic pyrethroids (see Annex B).

5.4.3 The common name of a substance which consists of complementary geometrical isomers should indicate the essential familial features (see 5.6). A specific isomer or subgroup of isomers of such a substance may be assigned a common name [which may include a syllable or letter(s) implying a cis-, trans-, (E)- or (Z)-form] only if the substance is produced commercially in a substantially pure form.

If a normal commercial product consists of a mixture of a single pair of isomers, the common name should apply to any mixture of the two. Individual isomers should be identified by suitable qualifiers, for example cis and trans or (E) and (Z).

If it is commercially possible to produce mixtures with different ratios of isomers, the ratio should be stated on the commercial product, for example "60:40". The ratios will not form part of the common name.

- **5.4.4** The common name for a substance that consists of a mixture of optical and geometric isomers should be one that is appropriate to the mixture and may be modified by qualifiers, to specify subgroups or individual isomers.
- **5.4.5** If a substance consists of a mixture of structural isomers, only one of which has the stated biological activity, the common name should be assigned only to the active isomer. However, if the substance consists of a mixture of pesticidally active isomers, and if the isomerism consists of variations in chain branching or position of substituents, the common name should be assigned to the mixture, which should be defined as an isomeric reaction product mixture of A + B.... In ISO 1750, footnotes giving indications of the usual proportions are included. If necessary, names for individual isomers may be derived by modifying the common name applied to the mixture.

5.5 Additional requirements

- **5.5.1** A common name should not be liable to confusion with
- a) established chemical names,
- b) common names already either officially authorized or in well-recognized use for other pharmaceutical, pesticidal or related substances, or
- c) trade marks enjoying legal protection with respect to pharmaceutical, pesticidal or related substances, unless the prior consent of the trade mark owner has been secured in writing.
- **5.5.2** In accordance with its definition and purpose (Clauses 3 and 4), a common name cannot be a proprietary name with respect to goods broadly of the same category. However, in some cases, circumstances may exist during an interim period which make it desirable for proprietary rights to be maintained as, for example, where the proposer has agreed to surrender his proprietary rights subject to acceptance of the name as an official common name. In such cases, the proprietor should first agree in writing to discontinue the use of the name as a trade mark as soon as official recognition as a common name is given by ISO, and thus
- a) to permit the use of the name as the approved common name by any party whatsoever who is properly using it, and
- b) to surrender all proprietary rights as soon as the special circumstances justifying their retention have ceased to exist.

- A common name should not be included in a national standard until it is considered that conflicts with legally protected trade marks are unlikely and that the name is likely to be internationally acceptable.
- If a common name is proposed for a substance which is closely related both chemically and in biological properties to an already named compound, it is preferred but not required that the proposal should reflect the similarity by using a common root (which may or may not be a recommended stem; see 5.6) in conjunction with syllables suggestive of the variation.

EXAMPLES:

_	ethirimol	dimethirimol
_	chlorotoluron	chloreturon
_	carbofuran	decarbofuran
_	formetanate	formparanate

5.6 Recommended stems

permethrin

A common name should, if appropriate, include a stem indicative of the types of compound listed in Table 2.

The recommended stem should be used in the name at the position specified. Judicious use of other nonchemical rather than chemical stems in a common name provides greater flexibility and reduces the possibility of conflict with existing names.

It is emphasized that there is no intention of applying this recommendation retrospectively.

- Other stems have previously been recommended for use in common names (see Table 3). These stems, whilst obsolescent, should still be restricted to use in names for the type of compound indicated.
- The use of stems with misleading chemical significance should be avoided. For example, a name ending in "-ol" or "-one" is not acceptable for a compound that is not an alcohol (or phenol) or a ketone respectively.

Style of writing or printing common names

cypermethrin

Common names should be treated as common nouns and should not, therefore, be capitalized except where required by national usage. Some common names, which were coined before these principles were elaborated, consist of initials and/or numerals. If such names consist only of initials, they should be written in capitals without intervening full-stops (e.g. MCPA). If numerals and letters both occur, the numerals should be separated from one another by commas and from letters by a hyphen (e.g. 2,4,5-T).

Table 2 — Recommended stems^a

Stem	Position in name	Type of compound	Example
-alin	suffix	2,6-Dinitroanilines	trifluralin
-azine	suffix	1,3,5-Triazines, chloro-substituted	atrazine
-azon	suffix	Cyclic acylhydrazides	chloridazon
-azone	suffix	N-acyl or N-phenyl triazolones	sulfentrazone
carb- or -carb- or -carb	any position	Carbamates and thiocarbamates	carbofuran
-conazole	suffix	Fungicides and plant growth regulators based on imidazole or 1,2,4-triazole and containing a halogenated phenyl group	penconazole
coum- or -coum	prefix or suffix	Coumarins	coumatetralyl
-fop	suffix	2-(4-Aryloxyphenoxy)propionic acids	fluazifop
-fop-	infix	2-(4-Aryloxyphenoxy)propionic acid derivatives other than salts and esters	trifopsime
fos- or -fos- or -fos	any position	Organophosphorus compounds	quintiofos
imaz-	prefix	Imidazolinone (HRAC group B)	imazapyr
-lure	suffix	Pheromone attractants or synthetic analogues thereof	_
-mectin	suffix	Analogues of avermectin	abamectin
-meton	suffix	1,3,5-Triazines, methoxy-substituted	secbumeton
-oxydim	suffix	Alkyl 2-hydroxy-6-oxocyclohexenyl ketone oximes	cloproxydim
-ozide	suffix	1,2-Diacyl-1-alkylhydrazine insect growth regulators	tebufenozide
-prole	suffix	N-Arylpyrazoles	vaniliprole
-quat	suffix	Quaternary nitrogen compounds	paraquat
-strobin	suffix	Analogues of strobilurin	azoxystrobin
-sulam	suffix	Aminosulfonyltriazolopyrimidines	diclosulam
-sulfuron	suffix	Sulfonylureas	bensulfuron
-thiuron	suffix	Thioureas	chloromethiuron
-thrin	suffix	Esters of cyclopropanecarboxylic acids (pyrethroids)	permethrin
-tryn ^b	suffix	1,3,5-Triazines, methylthio-substituted simetryn	
-uron	suffix	Acyclic ureas and ureas in which one or both nitrogen atoms form part of a saturated ring system	linuron

^a The recommendations are based on the chemical structures of the compounds.

Table 3 — Obsolescent stems

Stem	Position in name	Type of compound	Example
din-	prefix	Dinitrophenols	dinoterb
-eb	suffix	Ethylenebisdithiocarbamates	maneb
-nil	suffix	Nitriles	chlorothalonil
-rim	suffix	Pyrimidines	fenoxacrim

b In English, the ending "-tryne" was originally recommended, but was abandoned because the ending might be thought to indicate the presence of a C≡C grouping (see 5.6.3).

Annex A

(informative)

Procedure for the establishment of common names for pesticides and other agrochemicals

A.1 Glossary of English terms and definitions

proposed common name

name submitted by the sponsor

NOTE 1 Information supplied by the sponsor is regarded as confidential at this stage.

NOTE 2 The French term is "proposition de nom commun".

draft proposal for a common name

name circulated for preliminary enquiry to ISO/TC 81

Names at this stage should not be used in the literature or for any other purpose. The information that is circulated is considered to be in the public domain, and no longer confidential.

NOTE 2 The French term is "avant-projet de nom commun".

A.1.3

provisionally approved common name

name approved by ISO/TC 81 for inclusion in a list for letter ballot by ISO member bodies

NOTF 1 Names that have reached this stage are often used in the literature, on product labels, and for registration and other purposes. It is possible, but very unusual, for a name to be changed or rejected after reaching this stage.

NOTE 2 The French term is "nom commun provisoirement approuvé".

A.1.4

approved common name

name that has successfully passed the ISO voting stage, but has not yet been published in ISO 1750 or one of its addenda or amendments

Names that have reached this stage will not be changed before publication, and may be used without qualification in the literature, on product labels, and for registration and all other purposes.

NOTE 2 The French term is "nom commun approuvé".

A.1.5

published common name

name that has been published in ISO 1750 or one of its addenda or amendments

NOTE The French term is "nom commun publié".

A.1.6

national common name

name that has been published in a national standard of a particular country

NOTE 1 The country should be stated.

NOTE 2 The French term is "nom commun national".

A.2 Stage 1: Proposed common name

A.2.1 Submission

- **A.2.1.1** Proposed common names are submitted to the ISO/TC 81 Secretariat, normally through the national standards body of the country concerned, for consideration with a view to adoption by ISO. Submissions by other routes (e.g. from the manufacturers direct to the Secretariat or by the distributors in a country other than that in which the substance is manufactured or originates) are permissible.
- **A.2.1.2** Proposed common names submitted for letter ballot to the USA National Committee, or conveyed to the Secretariat by any other national committee, are assumed to have been submitted to the Secretariat for consideration and adoption by ISO/TC 81 without a specific request to this effect being necessary, unless a definite statement is made by the sponsor that the sponsor does not wish the name to be considered by ISO.

NOTE As a matter of principle, such statements are deprecated, because adoption of common names, which are used throughout the world, on a purely national level, without knowledge of their international acceptability, is certain to give rise to problems. The main such problem is the potential use of different common names in different geographical contexts, which defeats the object of standardization.

A.2.2 Information required

The following information is required to accompany a proposal for a new common name:

- a) the proposed common name, alternatives being allowed;
- b) the systematic chemical name (see Note 1) for the compound to which the common name is to be applied, including
 - 1) stereochemical identifiers, in the case of compounds that exist in different stereochemical forms, and, if appropriate, the proportions of the various isomers,
 - 2) in the case of compounds of uncertain composition, as much information on the chemical constitution as possible, and
 - 3) the Chemical Abstracts Service Registry Number or Numbers, as appropriate.
- c) the molecular formula;
- d) the structure of the compound or compounds (see Note 2) to which the common name is to be applied, indicating the stereochemistry if appropriate [see A.2.2 b)];
- e) where the substance is a simple ester or other derivative, an indication as to whether the existence of biological activity derives from the parent form; this is to be taken as the case if other esters or derivatives are known, or are expected, to exhibit similar biological activity;
- f) the name and address of the sponsor, together with any proprietary names, including trade marks, for the product:
- g) any other trivial names, code numbers or abbreviations for the compound;
- h) the use of the product (see Note 3).

NOTE 1 Three systematic chemical names will be included in ISO 1750, namely those corresponding to

- the English interpretation of the IUPAC rules,
- the French interpretation of the UICPA rules, and
- the rules used by Chemical Abstracts.

----,----,,-,-,-,-,-

These three names are provided by the recognized authorities in the United Kingdom and Canada and by the Chemical Abstracts Service.

NOTE 2 The structures will, if necessary, be redrawn to ensure self-consistency within ISO 1750.

NOTE 3 At present, the uses for which abbreviations (in parentheses) have been established by ISO/TC 81 are as follows:

acaricides	(A)	molluscicides	(M)
algicides	(AL)	nematicides	(N)
attractants	(AT)	plant growth regulators	(P)
bactericides	(B)	plant activators	(PA)
disruptants	(D)	rodenticides	(R)
fungicides	(F)	repellants	(RE)
herbicides	(H)	safeners	(S)
insecticides	(1)	avicides	(V)
insect growth regulators	(IGR)	synergists	(Y)

A.2.3 Secretariat examination

- **A.2.3.1** The Secretariat examines all proposed common names. Unless there are strong reasons not to do so, the proposals proceed to the next stage (preliminary enquiry), after a careful check on the information supplied (see Note 1 in A.2.2) and redrawing of the structure (see Note 2 in A.2.2). The sponsors are informed of the action taken.
- **A.2.3.2** The Secretariat examination at this stage is on "absolute grounds", by which is meant compliance with the principles set out in this International Standard. The most common reasons for a proposed common name not being acceptable at this stage are as follows:
- a) misleading chemical significance, for example a name ending in "-ol" if the compound is not an alcohol or phenol;
- b) the compound concerned being a salt or ester, when the name should be coined for the free acid or base, if that is the active moiety (see 5.2);
- c) misleading similarity to a draft, approved or published common name;
- d) likelihood of confusion with a draft, approved or published common name, or with relevant trade marks (whether registered or not), or with other non-proprietary names, notably WHO International Nonproprietary Names (for pharmaceuticals);
- e) presence of a stem recommended for inclusion in classes of compounds of which that proposed is not a member, or absence of an appropriate recommended stem (see Table 1).

These reasons are not exhaustive and are not necessarily in order of importance. If the objections are strong enough, the reasons are given to the sponsor with a request for a replacement proposal. In certain cases, the Secretariat may make suitable suggestions.

A.2.4 Common name and trade mark search reports

A.2.4.1 General

It is a principle [see 5.5.1 b) and c)] that common names shall not be liable to confusion either with common names that are officially authorized or in well-recognized use for other pharmaceutical, pesticidal or related substances, or with trade marks. To check this as far as is practicable, sponsors of common names are required by ISO/TC 81 to obtain, pay for and submit to the ISO/TC 81 Secretariat reports of common names or trade marks that are potentially barriers to the adoption of a common name.

These reports shall be provided when a name is first submitted. If this is not possible, reports shall be provided as soon as possible after the sponsor has been notified that there are no objections to the proposed common name(s) on "absolute grounds" (see A.2.3.2) and, in any event, shall be provided by the end of the preliminary enquiry consultation period (see A.2.3.1). It should be noted that, if a proposed common name is found unacceptable at any stage and a replacement is considered, it is usually necessary for further reports to be submitted.

NOTE The reports are not required for common name proposals formed by attaching affixes or suffixes to common names for which reports have previously been submitted.

A.2.4.2 Searches required

- **A.2.4.2.1** The common name search should cover proposed or recommended International Nonproprietary Names (INNs) and ISO common names.
- **A.2.4.2.2** The trade mark search should be conducted on all registered (and if appropriate, pending) trade marks in International Classes 1 and 5¹⁾ in the following registers:
 - a) United Kingdom;
 - b) United States of America (Federal Register);
 - c) Madrid Union²⁾ [as administered by the World Intellectual Property Organization (WIPO)];
 - d) sponsor's country.

A.2.4.3 Presentation of reports

- **A.2.4.3.1** The common name report should be a list of all potentially confusable and similar INNs and ISO common names (see A.2.4.4).
- **A.2.4.3.2** The trade mark search report should include:
 - a) a list of potentially confusable, similar or identical marks with their numbers (see A.2.4.4);
 - b) copies of the official entries showing their status and any consequential amendments, for example renewals;
 - c) a note stating whether, to the knowledge of the sponsor, any of the listed marks is, or was recently, in use, and for what purpose;
 - d) a note giving details of any agreement that the sponsor has made with a third party to overcome problems.

¹⁾ The Nice Agreement concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks (of 15 June 1957, as revised 14 July 1967 and May 13 1977 and as amended on 28 September 1979).

²⁾ The Madrid Agreement concerning the International Registration of Marks (of 14 April 1891 as revised 14 December 1900, 2 June 1911, 6 November 1925, 2 June 1944, 15 June 1957 and 14 July 1967, and as amended on 28 September 1979).

Both these Agreements are available from: World Intellectual Property Organization (WIPO), 34 Chemin des Colombettes (Place des Nations), 1211 Geneva 20, Switzerland.

A.2.4.4 Example of the required lists of common names and trade marks submitted by a sponsor

Proposed common name: benazamacril

UK		USA	
BENZELHIN	1146214	BENZAGEL	995775
BENZAGEL	1219277 (pending)	BENZAGEL	982461
		BENZAHYCIN	1226427
Madrid Union (WIP	O)	BENZACRYL	934780
BENZACYL	262783	BENADRYL4	16252
BENZACYL	422234	BENZETACIL	572049
BENTOCRYL	478323	BENTASIL	73489185 (pending)

INNs ISO common names

BENZESTROL BENZAMIZOLE
BENZHEXOL BENZAMORF

In addition to the information included with the list [see A.2.4.3.2 b), c) and d)], the list should include the name of the sponsor and the date(s) of search.

A.3 Stage 2: Draft proposal for a common name

A.3.1 Preliminary enquiry (corresponding to ISO draft proposals)

- **A.3.1.1** After having been satisfied that Stage 1 has been completed, the Secretariat circulates the proposed names for preliminary enquiry to the participating (P) and observer (O) members of ISO/TC 81 and to international organizations in liaison with ISO/TC 81, which include the World Intellectual Property Organization (WIPO) and the World Health Organization (WHO), allowing a three-month period for reply.
- **A.3.1.2** Acceptance or objections should be lodged with the Secretariat before the closing date for the preliminary enquiry concerned.
- **A.3.1.3** The object of this preliminary enquiry is to allow all the members of ISO/TC 81 (which are assumed to be those with an interest in the subject of pesticides, etc.) the opportunity to consider the acceptability of the proposed commmon name on "absolute grounds" (see A.2.3.2) and also to check for possibly conflicting nationally protected marks that present a barrier. If such marks exist, clearance from the trade mark owner for the use of the proposed common name needs to be obtained.
- NOTE A suitable form of words to obtain such clearance is given in A.7, for information.

If this clearance cannot be obtained, or the barrier otherwise overcome, the common name shall be identified in ISO 1750 as unacceptable in the country concerned, bearing in mind the principle embodied in 4.3.

In addition to the common name and trade mark search reports (see A.2.4.1), each member of ISO/TC 81 is required to conduct a search for potentially confusable, similar and identical trade marks registered in the member's own country.

The object of these searches is to avoid the possibility of confusion in sound or spelling, which could give rise to a dangerous situation, particularly in relation to names of other products, especially those of foods or pharmaceutical products. In replies to the preliminary enquiry notifying such conflicts, delay is avoided if the names and addresses of the owners of trade marks with which confusion may arise are given, together with the types of product for which the trade marks have been registered. Failures to meet the closing date for

replies to preliminary enquiries, or to notify that the reply will be delayed until a stated date, will inevitably result in considerable delays at later stages.

- **A.3.1.4** In their replies to preliminary enquiries, Canada and the USA are requested to provide additional items of information, if not already supplied. These are
- a) Canada: the spelling, if different, and gender of the common name in French, and the French (UICPA) systematic chemical name;
- b) USA: the systematic chemical name preferred by the Chemical Abstracts Service and confirmation of the Chemical Abstracts Service Registry Number.

A.3.2 Secretariat examination

- **A.3.2.1** The Secretariat examines the replies to the preliminary enquiries and either
- a) approves the name for inclusion in a list for letter ballot by all ISO member bodies as a draft amendment to ISO 1750 (in this case, only one of any given alternatives is selected and, if necessary, any countries with conflicting nationally protected trade marks are noted), or
- b) decides that one or more comments make the name(s) unacceptable, in which case discussions are re-opened with the sponsors to obtain an acceptable replacement.

Such replacements are then submitted for second or subsequent preliminary enquiry, with an explanatory note in the remarks section of the data sheet, and so on, until an acceptable name is obtained.

- **A.3.2.2** A summary of replies to preliminary enquiries, together with the proposed Secretariat action, is circulated to members of ISO/TC 81. National standards bodies are expected to inform originators of successful proposals; in other cases, the direct negotiations mentioned in A.3.2.1 b) take place.
- **A.3.2.3** As specifically resolved by ISO/TC 81, acceptance of any proposed name on a national level should be withheld at least until the results of the preliminary enquiry are known.
- **A.3.2.4** Names for compounds on which it seems unlikely that agreement can be reached by postal consultation are referred for discussion at a plenary meeting of ISO/TC 81.

A.4 Stage 3: Provisionally approved common name

A.4.1 Draft amendment to ISO 1750

A.4.1.1 The ISO/TC 81 Secretariat prepares a bilingual English and French version of a list of proposed names after they have passed the draft proposal stage (A.3).

The list contains

- a) the proposed common names with English and French spellings, together with footnotes giving local spelling variations and countries where the ISO name is not acceptable, giving the reasons and, if known, the common names that are used in those countries:
- b) the systematic chemical names, in English (IUPAC), French (UICPA) and according to Chemical Abstracts usage, in that order;
- c) the structures of the compounds or, in the case of reaction products or mixtures of isomers, etc., their compositions, together with their molecular formulae and Chemical Abstracts Service Registry Numbers;
- d) the use(s) of the compounds, classified according to the list in Note 3 to A.2.2;
- e) the countries where the names are not acceptable, referring to the relevant footnotes mentioned in a);
- f) annexes in which the corresponding information is given for compounds of uncertain composition.

NOTE 1 A distinction is made between a common name

- not being acceptable, for whatever reason, and
- not having been adopted.

A common name can be acceptable in a country without it having been adopted in that country. The means of promulgation of common names vary from country to country. Some (e.g. UK) automatically implement ISO common names in their national standards or in other publications. Some (e.g. USA) adopt a common name in their national standard only if a specific national submission for that name had been made.

NOTE 2 Compounds of uncertain composition are given in an annex.

A.4.1.2 These lists are circulated as draft amendments to International Standards by the ISO Central Secretariat to all member bodies of ISO/TC 81 for letter ballot.

A.5 Stage 4: Approved common name

At this stage the name has not yet been published in ISO 1750 or one of its amendments or addenda.

A.6 Stage: Published common name

At this stage the name has been published in ISO 1750 or one of its amendments or addenda.

A.7 Standard letter of approach to trade mark owners concerning clearance for use of a proposed common name

Dear	
consi	International Committee (ISO/TC 81) concerned with the coining of common names for pesticides is dering a proposal that the name should become the ISO common name for the chemical, is intended for use as a

The Committee is always concerned to respect the reasonable rights of prior trade marks owners and users, and to this end has arranged for a search to be conducted, which has revealed your *prima facie* rights in the trade mark (No) (Mark), in (Country)

It is extremely difficult and expensive to select a common name acceptable throughout the greater part of the world and we are sure you will realize that it is to the general advantage of all those concerned with the safe and efficient use of pesticides to do all they can to contribute towards a successful process of selection in this field.

Common names are not, of course, trade marks and are not intended to perform the function of trade marks. Their function is simply to designate unambiguously the specific substance or compound for which they have been coined, without the necessity of recourse to the often complex systematic name.

If your trade mark is in use upon a product which could be affected detrimentally by the adoption of the proposed common name by ISO, we shall take this into the most serious consideration. Should this be the case, would you please be kind enough to let us know the product in question and, if possible, the principal territories in which it circulates. If, however, it is not in use (at all or upon a product likely to be affected), then we should appreciate your formal confirmation in order to clear the way to final adoption as soon as possible.

Υ	our assistance	to t	he (Committee	would	be	greatl	y apprec	iated	
---	----------------	------	------	-----------	-------	----	--------	----------	-------	--

Yours sincerely,

Annex B

(informative)

System for constructing common names for isomers and isomer mixtures of pyrethroids and related compounds

B.1 Designation of stereochemistry in the chemical name

The possible chiral centres involved are indicated by asterisks in Figure B.1.

The absolute configuration at chiral centres can be designated by the use of the Sequence Rule, and geometrical isomerism by the *E* and *Z* descriptors. Both systems are described in Section E (stereochemistry) of Reference [2]. However, the rigorous application of the Sequence Rule to the two chiral centres of the cyclopropane ring would lead to a description in which the relationship between biological activity and chemical structure is obscured. This is particularly unfortunate insofar as it would hinder discussion among workers in the pyrethroid field. In this International Standard, the relationship between these two chiral centres is described by the use of *cis*- and *trans*-, in conjunction with the designation of the absolute configuration at carbon atom number 1, following a proposed system (see Reference [3]). An example is shown in Figure B.2.

In Figure B.2, the stereochemistry of the cyclopropane ring is shown by means of a "Haworth" representation wherein the ring is considered as nearly perpendicular to the plane of the paper, with attached groups lying above or below the plane of the ring and represented by vertical lines. Carbon atom number two is closest to the observer and depicted by two wedges tapering into the distance, linking up to carbon atoms one and three. This representation also confers a clockwise notation to the cyclopropane ring.

The IUPAC does not sanction the use of a combination of "absolute" and "relative" descriptors to describe a stereochemical situation, but such a procedure has clear advantages in the description of the stereoisomeric mixtures which are to be found in the specialized field of the pyrethroids.

B.2 System for coining common names

If a common name has already been assigned it should continue to apply to the isomer mixture described in ISO 1750. If necessary, ratios of *cis* to *trans* and (*R*) to (*S*) isomers in mixtures may be declared, for example, on the label, but not as part of the common name. Earlier cases, for example permethrin, have already established this practice.

A future compound with a novel structure, irrespective of whether it is a single isomer or mixture of isomers, should receive a new root common name.

However, subsequent compounds that differ only in their stereochemistry from a basic structure to which a common name has already been assigned should be given that common name, but with a prefix.

This prefix should be linked to the root name by a hyphen. Subject to the provisions of this International Standard, the prefix chosen should be the English spelling of a letter of the Greek alphabet, according to the list given in ISO 5428:1984, Clause 5. However, should this be impracticable, the prefix may be sought elsewhere.

The prefix to be used is chosen by the sponsor from those remaining available, subject to the following condition.

If a prefix has already been used to indicate a particular isomeric configuration or mixture, that prefix should be used with the same stereospecific significance with respect to any future "root name".

----,----,,-,,-,-,---

EXAMPLE If the name "omega-permethrin" has been chosen for the (1*R*)-*cis*-isomer of permethrin, then if a name were subsequently required for the (1*R*)-*cis*-isomer of tetramethrin, it would be "omega-tetramethrin".

The Secretariat will advise sponsors which prefixes have already been assigned and their stereospecific significance.

Ester R—CO—OR'					
Acid moiety R — CO —	Alcohol moiety — OR'				
3 1 CO —	O Aryl				
>= R" 1 CO —	Alkenyl				
>=< CO — Aryl					

Figure B.1 — Possible chiral centres involved

Permeth (alcohol moiety		Resmethrin (alcohol moiety = — OR')
CI >= CH CH		CH_3 CH_3 CH_3 CH_3 CH_3
Stereodescriptors		
Rothamsted style	(1 <i>R</i>)- <i>trans-</i>	(1R)-trans-
IUPAC	(1 <i>R</i> ,3 <i>S</i>)-	(1 <i>R</i> ,3 <i>R</i>)-

Figure B.2 — Stereodescriptors, for example pyrethroids

Bibliography

- [1] ISO 5428:1984, Greek alphabet coded character set for bibliographic information interchange
- [2] IUPAC Rules for the nomenclature of organic chemistry, 1979
- [3] ELLIOTT, M. et al. *Journal of the Chemical Society, Perkin Transactions I*, 1974, p 2470 (1st footnote, Rothamsted style)

ICS 65.100.01

Price based on 17 pages