

*The WHO Recommended  
Classification of  
Pesticides by Hazard*  
*and*  
**Guidelines to Classification  
2004**



UNEP

United Nations Environment Programme



International Labour Organization



World Health Organization

**IPCS**

International Programme on Chemical Safety

**IOMC** INTER-ORGANIZATION PROGRAMME FOR THE SOUND  
MANAGEMENT CHEMICALS

*A cooperative agreement among UNEP, ILO, FAO, WHO, UNIDO, UNITAR & OECD*



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## **THE WHO RECOMMENDED CLASSIFICATION OF PESTICIDES BY HAZARD AND GUIDELINES TO CLASSIFICATION 2004**

The WHO Recommended Classification of Pesticides by Hazard was approved by the 28th World Health Assembly in 1975 and has since gained wide acceptance. When it was published in the WHO Chronicle, 29, 397-401 (1975), an annex, which was not part of the Classification, illustrated its use by listing examples of classification of some pesticidal active ingredients and their formulations. Later suggestions were made by Member States and pesticide registration authorities that further guidance should be given on the classification of individual pesticides. Guidelines were first issued in 1978, and have since been revised and reissued at 2-3-year intervals.

As has been the case for previous editions of the classification, this edition complies with the original guidelines approved in the World Health Assembly 1975. In December, 2002 the United Nations Committee on Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals (UNCETDG/GHS) approved a document called "The Globally Harmonized System of Classification and Labelling of Chemicals" with the intent to provide a globally-harmonized system to address classification of chemicals, labels, and safety data sheets. Classification and labelling based on acute toxicity form a part of the GHS, and there are some differences between the GHS and the WHO traditional classification of pesticides by hazard. WHO is in the process of adjusting the Pesticide Classification to conform to the GHS; the results of this process are expected to be available in the next edition of the Classification, to be published within the next two years.

The document is arranged as follows:

Part I: The Classification as recommended by the World Health Assembly. This part is not subject to periodic review and the classification table and text can only be changed by resolution of the World Health Assembly.

Part II: Guidelines to Classification. Individual products are classified in a series of tables, according to the oral or dermal toxicity of the technical product, and its physical state. The tables are subject to review periodically.

The toxicity values are intended to be a guide only. Formulations should be separately classified using the methods set out on pages 3 (single technical product) and 6 (mixtures) and the table in Part I. To assist in the classification of formulations, an annex is now provided giving numerical tables from which the classification may also be derived.

Comments on Part II of the document are welcome, together with proposals for new entries. These should be addressed to the International Programme on Chemical Safety, World Health Organization, 1211 Geneva 27, Switzerland, and should include supporting data on the compound being commented on or proposed.

This document is a revision of the document previously issued as ISBN 92 4 154564 X.

## **PART I**

### **RECOMMENDED CLASSIFICATION OF PESTICIDES BY HAZARD**

#### **Extract from WHO Chronicle, 29: 397-401 (1975)**

In 1973, the WHO Executive Board asked the Director-General of WHO to take steps to develop a tentative classification of pesticides that would distinguish between the more and the less hazardous forms of each pesticide. A proposal for a WHO recommended classification of pesticides by hazard was accordingly prepared, taking into account the views of members of the WHO Expert Advisory Panel on Insecticides and other expert advisory panels with special competence and interest in pesticide technology, as well as the comments of WHO Member States and of two international agencies. This proposal was adopted by the Twenty-eighth World Health Assembly, which recommended the use of the classification by Member States, international agencies, and regional bodies.

The hazard referred to in this Recommendation is the acute risk to health (that is, the risk of single or multiple exposures over a relatively short period of time) that might be encountered accidentally by any person handling the product in accordance with the directions for handling by the manufacturer or in accordance with the rules laid down for storage and transportation by competent international bodies.

Any classification based on biological data can never be treated as final. In the assessment of biological data, honest differences of opinion are inevitable and most borderline cases can be reclassified in an adjacent class. Variability or inconsistency in toxicity data due to differences in susceptibility of test animals, or to experimental techniques and materials used can also result in differing assessments. The classification criteria are guide-points intended to supplement but never to substitute for special knowledge, sound clinical judgement or experience with a compound. Reappraisal might be necessary from time to time.

#### **Basis of classification**

The classification distinguishes between the more and the less hazardous forms of each pesticide in that it is based on the toxicity of the technical compound and on its formulations. In particular, allowance is made for the lesser hazards from solids as compared with liquids.

The classification is based primarily on the acute oral and dermal toxicity to the rat since these determinations are standard procedures in toxicology. Where the dermal LD<sub>50</sub><sup>1</sup> value of a compound is such that it would place it in a more restrictive class than the oral LD<sub>50</sub> value would indicate, the compound will always be classified in the more restrictive class. Provision is made for the classification of a particular compound to be adjusted if, for any reason, the acute hazard to man differs from that indicated by LD<sub>50</sub> assessments alone.

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<sup>1</sup> The LD<sub>50</sub> value is a statistical estimate of the number of mg of toxicant per kg of bodyweight required to kill 50% of a large population of test animals.

| Class |                                 | LD <sub>50</sub> for the rat (mg/kg body weight) |                      |                     |                        |
|-------|---------------------------------|--|----------------------|---------------------|------------------------|
|       |                                 | Oral   |                      | Dermal              |                        |
|       |                                 | Solids <sup>a</sup>                              | Liquids <sup>a</sup> | Solids <sup>a</sup> | Liquids <sup>a</sup>   |
| Ia    | Extremely hazardous             | 5 or less  | 20 or less           | 10 or less          | 40 or less             |
| Ib    | Highly hazardous                | 5 - 50   | 20 - 200             | 10-100              | 40 – 400               |
| II    | Moderately hazardous            | 50 - 500   | 200 - 2000           | 100-1000            | 400 – 4000             |
| III   | Slightly hazardous <sup>b</sup> | Over 500   | Over 2000            | Over 1000           | Over 4000 <sup>b</sup> |

<sup>a</sup> The terms "solids" and "liquids" refer to the physical state of the active ingredient being classified.

<sup>b</sup> See also Part II, Guidelines, para. 7 of Notes, page 7.

#### Application of the criteria for classification

- (a) Where it is shown that for a particular compound the rat is not the most suitable test animal (for example, if another species is conspicuously more sensitive or more closely resembles man in its reaction) then the classification of that compound should take this into account.
- (b) In practice, the majority of classifications will be made on the acute oral LD<sub>50</sub> value. However, dermal toxicity must always be considered since it has been found that, under most conditions of handling pesticides, a high proportion of the total exposure is dermal. Classification based on dermal data in a class indicating a great risk is necessary when the dermal LD<sub>50</sub> values indicate greater hazard than oral LD<sub>50</sub> values.
- (c) If the active ingredient produces irreversible damage to vital organs, is highly volatile, is markedly cumulative in its effect, or is found after direct observations to be particularly hazardous or significantly allergenic to man, then adjustments to the classification can be made by classifying the compound in a class indicating a higher hazard. Alternatively, if it can be shown that the preparation is less toxic or hazardous than expected from consideration of the LD<sub>50</sub> values of the ingredient or ingredients, or for any other reason, adjustments should be made by classifying the compound in a class indicating a lower hazard.
- (d) In certain special cases the acute oral or dermal LD<sub>50</sub> values of the compound or formulation should not be used as the main basis for classification. In such cases (for example, aerosol preparations, other special formulations and fumigants), more appropriate criteria should be used.
- (e) It is highly desirable that, whenever practicable, toxicological data for each formulation to be classified should be available from the manufacturer. However, if such data are not obtainable, then the classification may be based on proportionate calculations from the LD<sub>50</sub> values of the technical ingredient or ingredients, according to the following formula:

$$\frac{LD_{50} \text{ active ingredient} \times 100}{\text{Percentage of active ingredient in formulation}}$$

If the formulation contains more than one ingredient (including solvents, wetting agents, etc.) of significant toxicity-enhancing properties, then the classification should correspond to the toxicity of the mixed ingredients.

- (f) With a few exceptions, pesticides have low volatility and therefore no criteria are at present set out for volatility in this Recommendation. The inclusion of such criteria is unlikely to affect the classification of pesticides by hazard except in the case of volatile fumigants used in agriculture and food storage. On the other hand, when the criteria are applied to pesticide formulations based on solvents or to other chemicals, account must be taken of volatility and consequent inhalation toxicity.

#### Effects of classification on labeling<sup>2</sup>

While no specific symbols to identify classes are included in the Recommendation, the following are the general implications of the classification as regards labelling.

The aim should be uniformity in the statement on the nature of the risk (by phrase and/or symbol) on the label of the product, irrespective of the country of origin or use. Labels of products classified in classes Ia and Ib should bear a symbol indicating a high degree of hazard (usually a type of skull and crossbones) and a signal word or phrase, e.g. POISON or TOXIC. The presentation of the symbol and word or phrase, in terms of colour, size and shape should ensure that they are given sufficient prominence on the label.

The text should be in the local language and for all formulations should include the approved name of the active ingredient or ingredients, the method of use, and precautions to be taken in use. For classes Ia and Ib, symptoms and immediate treatment of poisoning should also be included.

The detailed precautions necessary for the use of a pesticide depend on the nature of the formulation and the pattern of use and are best decided by a pesticide registration authority when accepting a commercial label.

There are international agreements on symbols to denote hazards from materials which are inflammable, corrosive, explosive, etc., and these should be consulted and used where appropriate.

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<sup>2</sup> See also FAO (1985; 1990).

**PART II**  
**GUIDELINES TO CLASSIFICATION OF PESTICIDES BY HAZARD**

The main section of the guidelines consists of five tables preceded by notes on their use. In the tables, active ingredients (technical grade) have been classified as follows:

|   |    |
|---|----|
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The tables are arranged in alphabetical order.

In addition, the following tables show the details stated:

|  |    |
|--|----|
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## NOTES ON THE USE OF THE TABLES IN CLASSIFICATION

### ***The final classification of any product is intended to be by formulation***

The classification given in the tables below is of active ingredients, and only forms the starting point for the final classification of an actual formulation. It is by far preferable that the final classification of a formulation should be based on toxicity data obtained on that formulation by the manufacturer: the criteria set out in the table of the Classification in Part I are then applied to this first-hand data. Only if this is not available should the formula be used, as shown in Part I on page 3 to extrapolate the LD<sub>50</sub> of the formulation from that of the technical product. In this event, the single oral or dermal value of the LD<sub>50</sub> given in the tables below should be used in the formula, taking into account the physical state of the formulation. See also the Annex on page 44.

The following important points should be noted.

1. While the classification deals only with the acute risk to health, evaluations of other effects, including cancer, have been completed for many compounds for registration purposes. Where other effects have been shown to occur in man, these are noted in the 'Remarks' column and may have in some cases resulted in an adjusted classification.
2. Wherever possible, the data are listed under internationally approved common names, or if such names are not at present available, under nationally approved names. Some other common names appear in the alphabetic index pp. 55-64. Trade names are not given since there are many of these.
3. A list of references that may be used for the identification of pesticides is given at the end of these introductory notes, and the manufacturer should always assist by specifying any existing approved or common names for his product.
4. It is not possible to include classification of mixtures of pesticides in the guidelines: very many of these are marketed with varying concentrations of active constituents. There are three possible approaches to the classification of mixtures - in order of preference:
  - (a) require the formulator to obtain reliable acute oral and dermal toxicity data for rats on the actual mixture as marketed: or
  - (b) classify the formulation according to the most hazardous constituent of the mixture as if that constituent was present in the same concentration as the total concentration of all active constituents: or
  - (c) apply the formula:

$$\frac{C_a}{T_a} + \frac{C_b}{T_b} + \dots + \frac{C_z}{T_z} \equiv \frac{100}{T_m}$$

Where C = the % concentrations of constituent A, B ... Z in the mixture  
T = the oral LD<sub>50</sub> values of constituents A, B ... Z  
T<sub>m</sub> = the oral LD<sub>50</sub> value of the mixture.

The formula can also be used for dermal toxicities provided that this information is available on the same species for all constituents. The use of this formula does not take into account any potentiation or protective phenomena.

5. In the tables below, single figures have been given as LD<sub>50</sub> values for classification purposes, using the route as described in the table. Where several LD<sub>50</sub> values have been published, the lowest deemed reliable is used. Where a sex difference occurs in LD<sub>50</sub> values, the value for the more sensitive sex is used. A number of adjustments to Classification have been made in respect of some pesticides and these are explained. A borderline case has been classified in the more or less hazardous class after consideration of its toxicology and use experience.
6. Pesticides have been classified on the basis of the physical state of the technical product. It may happen in a few cases that where the technical product is a solid, highly concentrated liquid formulations may need to be classified in a more hazardous class. In most cases, oils (used as a physical and not a chemical term) have been classified as liquids unless very viscous at ordinary temperatures.
7. In Table 5, a number of pesticides are listed as unlikely to present any acute hazard in normal use. The WHO classification is open-ended but it is clear that there must be a point at which the acute hazard posed by the use of these compounds is so low as to be negligible provided that the precautions are taken that should be used in dealing with any chemical. In compiling this table, it has been assumed that this point is an oral LD<sub>50</sub> of 2000 mg/kg for solids and 3000 mg/kg for liquids, or a dermal LD<sub>50</sub> of 4000 and 6000 mg/kg. However, it should not be overlooked that in formulations of these technical products, solvents or vehicles may present a greater hazard than the actual pesticide and therefore classification of a formulation in one of the higher hazard classes may be necessary.
8. Based on the evaluation and recommendations in the Environmental Health Criteria Document 217: *Bacillus thuringiensis*, this biological pesticide has been included in this edition of the classification.
9. The toxicity data for pyrethroids is highly variable according to isomer ratios, the vehicle used for oral administration, and the husbandry of the test animals. The variability is reflected in the prefix 'c' before LD<sub>50</sub> values. The single LD<sub>50</sub> value now chosen for classification purposes is based on administration in corn oil and is much lower than that in aqueous solutions. This has resulted in considerable changes in the classification of some products and also underlines the need for classification by formulation if the classification is to reflect true hazard.

## ENTRIES AND ABBREVIATIONS USED IN THE TABLES

Active ingredients printed in *italics* in tables 1-5 are either new or have been reclassified.

Column 1: Sequential number of active ingredients, preceded by an indicator of the category in the classification.

Column 2: Common name. [ISO] denotes common name of the active ingredient approved by the International Organization for Standardization. Such names are, when available, preferred by WHO to all other common names. However, attention is drawn to the fact that some of these names may not be acceptable for national use in some countries. If the letters ISO appear within parentheses (ISO), this indicates that ISO has standardized (or is in the process of standardizing) the name of the base, but not the name of the derivative listed in column 1. For example, fentin acetate (ISO) indicates that fentin is an ISO name, but fentin acetate is not. ISO\* denotes pending ISO approval of the name. C denotes chemical, trivial, or other common name.

Column 3: CAS Registry number: The number for the chemical, not those for eg. different esters or salts are given.

Column 4: UN number refers to the UN Recommendations on the transport of dangerous goods, Eleventh revision (1999). This is given only for active ingredients in Tables 1, 2, 3 or 4, since so few ingredients in Table 5 have UN numbers. The UN number refers only to the active ingredient; formulations are likely to have different numbers, since the ingredient may, for example, be dissolved in a solvent - and liquid products have different UN numbers, which depends on their flammability.

Column 5: Chemical type. Only a limited number of chemical types are shown. Most have some significance in the sense that they may have a common antidote, or may be confused in the nomenclature with other chemical types e.g. thiocarbamates are not cholinesterase inhibitors and do not have the same effects as carbamates. Chemical type is also a determinant of the UN numbering system. These chemical classifications are included only for convenience, and do not represent a recommendation of the part of the World Health Organization as to the way in which the pesticides should be classified. It should, furthermore, be understood that some pesticides may fall into more than one type.

|    |                         |     |                               |
|----|-------------------------|-----|-------------------------------|
| AS | Arsenic compound        | OP  | Organophosphorus compound     |
| BP | Bipyridylum derivative  | OT  | Organotin compound            |
| C  | Carbamate               | PAA | Phenoxyacetic acid derivative |
| CO | Coumarin derivative     | PZ  | Pyrazole                      |
| CU | Copper compound         | PY  | Pyrethroid                    |
| HG | Mercury compound        | T   | Triazine derivative           |
| NP | Nitrophenol derivative  | TC  | Thiocarbamate                 |
| OC | Organochlorine compound |     |                               |

Column 6: Physical state. Refers only to the active ingredient. L denotes liquid, including solids with a melting point below 50°C; oil denotes oily liquids and S solids, including waxes. The physical state may affect the exposure potential and thus the absorbed amount of the chemical, and thus is a factor affecting the classification (See table on page 3 in Part 1).

Column 7: Main use. In most cases only a single use is given. This is only for identification purposes and does not exclude other uses.

|     |  |       |  |
|-----|--|-------|--|
| AC  | acaricide                                | L     | larvicide  |
| AP  | aphicide                                 | M     | molluscicide   |
| B   | bacteriostat (soil)                      | MT    | miticide   |
| FM  | fumigant                                 | N     | nematocide   |
| F   | fungicide, other than for seed treatment | O     | other use for plant pathogens  |
| FST | fungicide, for seed treatment            | PGR   | plant growth regulator   |
| H   | herbicide                                | R     | rodenticide  |
| I   | insecticide                              | RP( ) | repellant (species)  |
| IGR | insect growth regulator                  | -S    | applied to soil: not used with herbicides or plant growth regulators |
| Ix  | ixodicide (for tick control)             | SY    | synergist  |

Column 8: LD<sub>50</sub>. The LD<sub>50</sub> value is a statistical estimate of the number of mg of toxicant per kg of body weight required to kill 50% of a large population of test animals: the rat is used unless otherwise stated. Usually a single value, but sometimes a range is given. "c" preceding the value indicates that it is a value within a wider than usual range, adopted for classification purposes. When several different values are reported in the literature, the lowest is reported and used as the basis of classification, unless there are clear indications that a higher value is more reliable. Oral route values are used unless the dermal route values place the compound in a more hazardous class, or unless the dermal values are significantly lower than the oral values, although in the same class. Dermal LD<sub>50</sub> values are indicated with the letter D.

Column 9: Remarks. This column is used to indicate cases in which the classification of a technical product has been adjusted (i.e., the oral LD<sub>50</sub> value is not directly used as the basis of classification); Major irritant properties are also noted although they do not affect the classification. Sources of further information may also be given here: DS denotes a WHO/FAO Data Sheet on Pesticides, EHC an Environmental Health Criteria monograph, HSG a Health and Safety Guide, IARC IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, ICSC an International Chemical Safety Card and JMPR an evaluation by the Joint FAO/WHO Meeting on Pesticide Residues. These publications (with the exception of IARC Monographs) can be found on the IPCS web site (<http://www.who.int/pcs/>).

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**Table 1. Extremely hazardous (Class IA) technical grade active ingredients in pesticides**

| <b>Common name</b>          | <b>CAS no</b> | <b>UN no</b> | <b>Chem type</b> | <b>Phys state</b> | <b>Main use</b> | <b>LD<sub>50</sub> mg/kg</b> | <b>Remarks</b>   |
|-----------------------------|---------------|--------------|------------------|-------------------|-----------------|------------------------------|--|
| Aldicarb [ISO]              | 116-06-3      | 2757         | C                | S                 | I-S             | 0.93                         | DS 53; EHC 121; HSG 64; IARC 53; ICSC 94; JMPR 1993, 1996a                                     |
| Brodifacoum [ISO]           | 56073-10-0    | 3027         | CO               | S                 | R               | 0.3                          | DS 57; EHC 175; HSG 93   |
| Bromadiolone [ISO]          | 28772-56-7    | 3027         | CO               | S                 | R               | 1.12                         | DS 88; EHC 175; HSG 94   |
| Bromethalin [ISO]           | 63333-35-7    | 2588         |                  | S                 | R               | 2                            |  |
| Calcium cyanide [C]         | 592-01-8      | 1575         |                  | S                 | FM              | 39                           | Adjusted classification; see note 1; ICSC 407  |
| Captafol [ISO]              | 2425-06-1     |              |                  | S                 | F               | 5000                         | Adjusted classification; see note 2; HSG 49; IARC 53; ICSC 119; JMPR 1978, 1986a; see note 3   |
| Chlorethoxyfos [ISO]        | 54593-83-8    | 3018         | OP               | L                 | I               | 1.8                          | Extremely hazardous by skin contact (LD <sub>50</sub> in rabbits 12.5 mg/kg)                   |
| Chlormephos [ISO]           | 24934-91-6    | 3018         | OP               | L                 | I               | 7                            |  |
| Chlorophacinone [ISO]       | 3691-35-8     | 2588         |                  | S                 | R               | 3.1                          | DS 62; EHC 175   |
| Difenacoum [ISO]            | 56073-07-5    | 3027         | CO               | S                 | R               | 1.8                          | EHC 175; HSG 95  |
| Difethialone [ISO]          | 104653-34-1   | 2588         |                  | S                 | R               | 0.56                         | EHC 175  |
| Diphacinone [ISO]           | 82-66-6       | 2588         |                  | S                 | R               | 2.3                          | EHC 175  |
| Disulfoton [ISO]            | 298-04-4      | 3018         | OP               | L                 | I               | 2.6                          | DS 68; JMPR 1992, 1997a  |
| EPN                         | 2104-64-5     | 2783         | OP               | S                 | I               | 14                           | See note 4; ICSC 753   |
| Ethoprophos [ISO]           | 13194-48-4    | 3018         | OP               | L                 | I-S             | D26                          | DS 79; JMPR 2000   |
| Flocoumafen                 | 90035-08-8    | 3027         | CO               | S                 | R               | 0.25                         | EHC 175; ICSC 1267   |
| Hexachlorobenzene [ISO]     | 118-74-1      | 2729         | OC               | S                 | FST             | D10000                       | Adjusted classification; see notes 3 and 5; DS 26; IARC 79; ICSC 895                           |
| Mercuric chloride [ISO]     | 7487-94-7     | 1624         | HG               | S                 | F-S             | 1                            | See note 3; ICSC 979   |
| Mevinphos [ISO]             | 26718-65-0    | 3018         | OP               | L                 | I               | D4                           | DS 14; ICSC 924; JMPR 1998b  |
| Parathion [ISO]             | 56-38-2       | 3018         | OP               | L                 | I               | 13                           | See note 3; DS 6; HSG 74; IARC 30, Suppl. 7; ICSC 6; JMPR 1996b                                |
| Parathion-methyl [ISO]      | 298-00-0      | 3018         | OP               | L                 | I               | 14                           | See note 3; DS 7; EHC 145; HSG 75; ICSC 626; JMPR 1985c, 1996b                                 |
| Phenylmercury acetate [ISO] | 62-38-4       | 1674         | HG               | S                 | FST             | 24                           | Adjusted classification; see notes 3 and 6; ICSC 540   |
| Phorate [ISO]               | 298-02-2      | 3018         | OP               | L                 | I               | 2                            | DS 75; JMPR 1997b, 2005  |
| Phosphamidon                | 13171-21-6    | 3018         | OP               | L                 | I               | 7                            | See note 3; DS 74; ICSC 189; JMPR 1987b<br>CAS Nos for E and Z isomers 297-99-4 and 23783-98-4 |
| Sodium fluoroacetate [C]    | 62-74-8       | 2629         |                  | S                 | R               | 0.2                          | DS 16  |
| Sulfotep [ISO]              | 3689-24-5     | 1704         | OP               | L                 | I               | 5                            | ICSC 985   |
| Tebupirimfos [ISO*]         | 96182-53-5    | 3018         | OP               | L                 | I               | 1.3                          | Extremely hazardous by skin contact (LD <sub>50</sub> 9.4 mg/kg in rats)                       |
| Terbufos [ISO]              | 13071-79-9    | 3018         | OP               | L                 | I-S             | c2                           | JMPR 1991, 2004  |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

#### Notes to Class Ia

1. Calcium cyanide is in Class Ia as it reacts with moisture to produce hydrogen cyanide gas. The gas is not classified under the WHO system (see Table 8).
2. Captafol is carcinogenic in both rats and mice.
3. The international trade of captafol, hexachlorobenzene, mercury compounds, parathion, parathion-methyl, and phosphamidon is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See table 7, p. 39
4. EPN has been reported as causing delayed neurotoxicity in hens.
5. Hexachlorobenzene has caused a serious outbreak of porphyria in humans. The use and production of hexachlorobenzene is severely restricted by the Stockholm convention on persistent organic pollutants, which entered into force on 17 May, 2004. See <http://www.pops.int/>
6. Phenylmercury acetate is highly toxic to mammals and very small doses have produced renal lesions: teratogenic in the rat.

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| <p>THE FINAL CLASSIFICATION OF ANY PRODUCT<br/>DEPENDS ON ITS FORMULATION<br/>See Pages 6 &amp; 7, and the Annex</p> |
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Table 2. Highly hazardous (Class IB) technical grade active ingredients in pesticides

| Common name                  | CAS no     | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks  |
|------------------------------|------------|-------|-----------|------------|----------|------------------------|--|
| Acrolein [C]                 | 107-02-8   | 1092  |           | L          | H        | 29                     | EHC 127; HSG 67; IARC 63; ICSC 90                                |
| Allyl alcohol [C]            | 107-18-6   | 1098  |           | L          | H        | 64                     | Highly irritant to skin and eyes; ICSC 95                        |
| Azinphos-ethyl [ISO]         | 2642-71-9  | 2783  | OP        | S          | I        | 12                     | DS 72; JMPR 1974   |
| Azinphos-methyl [ISO]        | 86-50-0    | 2783  | OP        | S          | I        | 16                     | DS 59; ICSC 826; JMPR 1992                                       |
| Blasticidin-S                | 2079-00-7  | 2588  |           | S          | F        | 16                     |  |
| Butocarboxim [ISO]           | 34681-10-2 | 2992  | C         | L          | I        | 158                    | JMPR 1985a   |
| Butoxycarboxim [ISO]         | 34681-23-7 | 2992  | C         | L          | I        | D288                   |  |
| Cadusafos [ISO]              | 95465-99-9 | 3018  | OP        | L          | N,I      | 37                     | JMPR 1992  |
| Calcium arsenate [C]         | 7778-44-1  | 1573  | AS        | S          | I        | 20                     | EHC 224; IARC 84; ICSC 765; JMPR 1969                            |
| Carbofuran [ISO]             | 1563-66-2  | 2757  | C         | S          | I        | 8                      | DS 56; ICSC 122; JMPR 1997b, 2003b. See note 2                   |
| Chlorfenvinphos [ISO]        | 470-90-6   | 3018  | OP        | L          | I        | 31                     | ICSC 1305; JMPR 1995b  |
| 3-Chloro-1,2-propanediol [C] | 96-24-2    | 2689  |           | L          | R        | 112                    | See note 1   |
| Coumaphos [ISO]              | 56-72-4    | 2783  | OP        | S          | AC,MT    | 7.1                    | ICSC 422; JMPR 1991  |
| Coumatetralyl [ISO]          | 5836-29-3  | 3027  | CO        | S          | R        | 16                     |  |
| Zeta-cypermethrin [ISO]      | 52315-07-8 | 3352  | PY        | L          | I        | c86                    | See note 9, p. 7; HSG 22; ICSC 246                               |
| Demeton-S-methyl [ISO]       | 919-86-8   | 3018  | OP        | L          | I        | 40                     | DS 61, EHC 197; ICSC 705; JMPR 1990                              |
| Dichlorvos [ISO]             | 62-73-7    | 3018  | OP        | L          | I        | 56                     | Volatile, DS 2; EHC 79; HSG 18; IARC 20, 53; ICSC 690; JMPR 1994 |
| Dicrotophos [ISO]            | 141-66-2   | 3018  | OP        | L          | I        | 22                     | ICSC 872   |
| Dinoterb [ISO]               | 1420-07-1  | 2779  | NP        | S          | H        | 25                     |  |
| DNOC [ISO]                   | 534-52-1   | 2779  | NP        | S          | I-S,H    | 25                     | JMPR 1965a, EHC 220. See note 2                                  |
| Edifenphos [ISO]             | 17109-49-8 | 3018  | OP        | L          | F        | 150                    | JMPR 1982  |
| Ethiofencarb [ISO]           | 29973-13-5 | 2992  | C         | L          | I        | 200                    | JMPR 1983  |
| Famphur                      | 52-85-7    | 2783  | OP        | S          | I        | 48                     |  |
| Fenamiphos [ISO]             | 22224-92-6 | 2783  | OP        | S          | N        | 15                     | DS 92; ICSC 483; JMPR 1998b, 2003b                               |
| Flucythrinate [ISO]          | 70124-77-5 | 3352  | PY        | L          | I        | c67                    | Irritant to skin and eyes, see note 9, p.7; JMPR 1986b           |
| Fluoroacetamide [C]          | 640-19-7   | 2588  |           | S          | R        | 13                     | See note 2   |
| Formetanate [ISO]            | 22259-30-9 | 2757  | C         | S          | AC       | 21                     |  |
| Furathiocarb                 | 65907-30-4 | 2992  | C         | L          | I-S      | 42                     |  |
| Heptenophos [ISO]            | 23560-59-0 | 3018  | OP        | L          | I        | 96                     |  |
| Isoxathion [ISO]             | 18854-04-8 | 3018  | OP        | L          | I        | 112                    |  |

Table 2. Highly hazardous (Class IB) technical grade active ingredients in pesticides, continued

| Common name             | CAS no     | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks  |
|-------------------------|------------|-------|-----------|------------|----------|------------------------|--|
| Lead arsenate [C]       | 7784-40-9  | 1617  | AS        | S          | L        | c10                    | EHC 224; IARC 84; ICSC 911; JMPR 1969                          |
| Mecarbam [ISO]          | 2595-54-2  | 3018  | OP        | Oil        | I        | 36                     | JMPR 1987a   |
| Mercuric oxide [ISO]    | 21908-53-2 | 1641  | HG        | S          | O        | 18                     | ICSC 981, CICAD 50. See note 2                                 |
| Methamidophos [ISO]     | 10265-92-6 | 2783  | OP        | S          | I        | 30                     | See note 2; HSG 79; ICSC 176; JMPR 1991, 2003b                 |
| Methidathion [ISO]      | 950-37-8   | 3018  | OP        | L          | I        | 25                     | JMPR 1998b   |
| Methiocarb [ISO]        | 2032-65-7  | 2757  | C         | S          | I        | 20                     | JMPR 1999  |
| Methomyl [ISO]          | 16752-77-5 | 2757  | C         | S          | I        | 17                     | DS 55, EHC 178; HSG 97; ICSC 177, JMPR 1989, 2002              |
| Monocrotophos [ISO]     | 6923-22-4  | 2783  | OP        | S          | I        | 14                     | See note 2; HSG 80; ICSC 181; JMPR 1996b                       |
| Nicotine [ISO]          | 54-11-5    | 1654  |           | L          |          | D50                    | ICSC 519   |
| Omethoate [ISO]         | 1113-02-6  | 3018  | OP        | L          | I        | 50                     | JMPR 1997a   |
| Oxamyl [ISO]            | 23135-22-0 | 2757  | C         | S          | I        | 6                      | DS 54; JMPR 1986b, 2003b                                       |
| Oxydemeton-methyl [ISO] | 301-12-2   | 3018  | OP        | L          | I        | 65                     | JMPR 1990, 2003b   |
| Paris green [C]         | 12002-03-8 | 1585  | AS        | S          | L        | 22                     | Copper-arsenic complex   |
| Pentachlorophenol [ISO] | 87-86-5    | 3155  |           | S          | I,F,H    | D80                    | See note 2; Irritant to skin; EHC 71; HSG 19; IARC 53; ICSC 69 |
| Propetamphos [ISO]      | 31218-83-4 | 3018  | OP        | L          | I        | 106                    |  |
| Sodium arsenite [C]     | 7784-46-5  | 1557  | AS        | S          | R        | 10                     | EHC 224; IARC 84   |
| Sodium cyanide [C]      | 143-33-9   | 1689  |           | S          | R        | 6                      | ICSC 1118; CICAD 61  |
| Strychnine [C]          | 57-24-9    | 1692  |           | S          | R        | 16                     | ICSC 197   |
| Tefluthrin              | 79538-32-2 | 3349  | PY        | S          | I-S      | c22                    | See note 9, p. 7   |
| Thallium sulfate [C]    | 7446-18-6  | 1707  |           | S          | R        | 11                     | DS 10, EHC 182; ICSC 336                                       |
| Thiofanox [ISO]         | 39196-18-4 | 2757  | C         | S          | I-S      | 8                      |  |
| Thiometon [ISO]         | 640-15-3   | 3018  | OP        | Oil        | I        | 120                    | DS 67; ICSC 580; JMPR 1980                                     |
| Triazophos [ISO]        | 24017-47-8 | 3018  | OP        | L          | I        | 82                     | JMPR 1994, 2003b   |
| Vamidothion [ISO]       | 2275-23-2  | 3018  | OP        | L          | I        | 103                    | JMPR 1989  |
| Warfarin [ISO]          | 81-81-2    | 3027  | CO        | S          | R        | 10                     | DS 35, EHC 175; HSG 96; ICSC 821                               |
| Zinc phosphide [C]      | 1314-84-7  | 1714  |           | S          | R        | 45                     | DS 24, EHC 73; ICSC 602  |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

Notes to Class II

1. 3-Chloro-2,3-propanediol in nonlethal dosage is a sterilant for male rats. This compound is also known as alpha chlorhydrin.
2. The international trade of carbofuran, DNOC, fluoroacetamide, methamidophos, monocrotophos, and pentachlorophenol is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See Table 7, p. 39.

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| <p>THE FINAL CLASSIFICATION OF ANY PRODUCT<br/>DEPENDS ON ITS FORMULATION<br/>See Pages 6 &amp; 7, and the Annex</p> |
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Table 3. Moderately hazardous (Class II) technical grade active ingredients in pesticides

| Common name                 | CAS no      | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks   |
|-----------------------------|-------------|-------|-----------|------------|----------|------------------------|---|
| Alanycarb [ISO]             | 83130-01-2  |       | C         | S          | I        | 330                    |   |
| Anilofos [ISO]              | 64249-01-0  |       | OP        | S          | H        | 472                    |   |
| Azaconazole                 | 60207-31-0  |       |           | S          | F        | 308                    |   |
| Azocyclotin [ISO]           | 41083-11-8  | 2786  | OT        | S          | AC       | 80                     | JMPR 1990, 1995b  |
| Bendiocarb [ISO]            | 22781-23-3  | 2757  | C         | S          | I        | 55                     | DS 52   |
| Benfuracarb [ISO]           | 82560-54-1  | 2992  | C         | L          | I        | 205                    |   |
| Bensulide [ISO]             | 741-58-2    | 2902  |           | L          | H        | 270                    | ICSC 383  |
| Bifenthrin                  | 82657-04-3  | 3349  | PY        | S          | I        | c55                    | JMPR 1993   |
| Bilanafos [ISO]             | 71048-99-2  |       |           | S          | H        | 268                    |   |
| Bioallethrin [C]            | 584-79-2    |       | PY        | L          | I        | c700                   | See note 1; note 9, p. 7; ICSC 227                                      |
| Bromoxynil [ISO]            | 1689-84-5   | 2588  |           | S          | H        | 190                    |   |
| Bromuconazole               | 116255-48-2 |       |           | S          | F        | 365                    | ICSC 1264   |
| Bronopol                    | 52-51-7     |       |           | S          | B        | 254                    | ICSC 415  |
| Butamifos [ISO]             | 36335-67-8  |       | OP        | L          | H        | 630                    |   |
| Butylamine [ISO]            | 13952-84-6  | 1992  |           | L          | F        | 380                    | Irritant to skin; ICSC 401; JMPR 1982, 1985b                            |
| Carbaryl [ISO]              | 63-25-2     | 2757  | C         | S          | I        | c300                   | DS 3; EHC 153; HSG 78; IARC 12, Suppl. 7; ICSC 121; JMPR 1997b, 2002    |
| Carbosulfan [ISO]           | 55285-14-8  | 2992  | C         | L          | I        | 250                    | JMPR 1987a, 2004  |
| Cartap [ISO]                | 15263-53-3  |       |           | S          | I        | 325                    | EHC 76; JMPR 1996a  |
| Chloralose [C]              | 15879-93-3  |       |           | S          | R        | 400                    |   |
| Chlordane [ISO]             | 57-74-9     | 2996  | OC        | L          | I        | 460                    | See notes 2 and 3; DS 36; EHC 34; HSG 13; IARC 79; ICSC 740; JMPR 1986b |
| Chlorfenapyr [ISO]          | 122453-73-0 |       |           | S          | I,MT     | 441                    |   |
| Chlorphonium chloride [ISO] | 115-78-6    | 2588  |           | S          | PGR      | 178                    | Irritant to skin and eyes   |
| Chlorpyrifos [ISO]          | 2921-88-2   | 2783  | OP        | S          | I        | 135                    | DS 18; ICSC 851; JMPR 2000  |
| Clomazone [ISO]             | 81777-89-1  |       |           | L          | H        | 1369                   |   |
| Copper sulfate [C]          | 7758-98-7   |       | CU        | S          | F        | 300                    |   |
| Cuprous oxide [C]           | 1317-39-1   |       | CU        | S          | F        | 470                    | ICSC 421, EHC 200   |
| Cyanazine [ISO]             | 21725-46-2  |       | T         | S          | H        | 288                    | ICSC 391  |
| Cyanophos [ISO]             | 2636-26-2   |       | OP        | L          | I        | 610                    |   |
| Cyfluthrin [ISO]            | 68359-37-5  |       | PY        | S          | I        | c250                   | See note 9, p. 7; JECFA 1997  |
| Beta-cyfluthrin [ISO]       | 68359-37-5  |       | PY        | S          | I        | 450                    | See note 9, p. 7  |
| Cyhalothrin [ISO]           | 68085-85-8  | 3352  | PY        | Oil        | Ix       | c144                   | See note 9, p. 7; EHC 99; HSG 38; ICSC 858; JMPR 1985c, JECFA 2000b     |
| Cypermethrin [ISO]          | 52315-07-8  | 3352  | PY        | L          | I        | c250                   | See note 9, p. 7; DS 58; EHC 82; HSG 22; ICSC 246; JECFA 1996           |

Table 3. Moderately hazardous (Class II) technical grade active ingredients in pesticides, continued

| Common name                       | CAS no      | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks   |
|-----------------------------------|-------------|-------|-----------|------------|----------|------------------------|---|
| Alpha-cypermethrin [ISO]          | 67375-30-8  | 3349  | PY        | S          | I        | c79                    | See note 9, p 7; EHC 142; JECFA 1996  |
| Cyphenothrin [(1R)-isomers] [ISO] | 39515-40-7  | 3352  | PY        | L          | I        | 318                    |   |
| 2,4-D [ISO]                       | 94-75-7     | 3345  | PAA       | S          | H        | 375                    | DS 37; EHC 29, 84; HSG 5; IARC 41, Suppl. 7; ICSC 33; JMPR 1998b              |
| DDT [ISO]                         | 50-29-3     | 2761  | OC        | S          | I        | 113                    | See notes 2 and 3; DS 21; EHC 9, 83; IARC 53; ICSC 34; JMPR 1985c, 2001       |
| Deltamethrin [ISO]                | 52918-63-5  | 3349  | PY        | S          | I        | c135                   | See note 9, p. 7; DS 50; EHC 97; HSG 30; IARC 53; ICSC 247; JMPR 2001         |
| Diazinon [ISO]                    | 333-41-5    | 3018  | OP        | L          | I        | 1000                   | DS 45, EHC 198; ICSC 137; JMPR 1994, 2002                                     |
| Difenzoquat [ISO]                 | 43222-48-6  | 2588  |           | S          | H        | 470                    |   |
| Dimethoate [ISO]                  | 60-51-5     | 2783  | OP        | S          | I        | c150                   | DS 42; EHC 90; HSG 20; ICSC 741; JMPR 1997b, 2004                             |
| Dinobuton [ISO]                   | 973-21-7    | 2779  | NP        | S          | AC,F     | 140                    |   |
| Diquat [ISO]                      | 2764-72-9   | 2781  | BP        | S          | H        | 231                    | Irritant to skin and eyes and damages nails; DS 40; EHC 39; HSG 52; JMPR 1994 |
| Endosulfan [ISO]                  | 115-29-7    | 2761  | OC        | S          | I        | 80                     | DS 15; EHC 40; HSG 17; ICSC 742; JMPR 1999                                    |
| Endothal-sodium [(ISO)]           | 125-67-9    | 2588  |           | S          | H        | 51                     |   |
| EPTC [ISO]                        | 759-94-4    |       | TC        | L          | H        | 1652                   | ICSC 469  |
| Esfenvalerate [ISO]               | 66230-04-4  | 3349  | PY        | S          | I        | 87                     | JMPR 2003b  |
| Ethion [ISO]                      | 563-12-2    | 3018  | OP        | L          | I        | 208                    | ICSC 888; JMPR 1991   |
| Fenazaquin [ISO]                  | 120928-09-8 | 2588  |           | S          | AC       | 134                    |   |
| Fenitrothion [ISO]                | 122-14-5    |       | OP        | L          | I        | 503                    | DS 30; EHC 133; HSG 65; ICSC 622; JMPR 2001                                   |
| Fenobucarb                        | 3766-81-2   |       | C         | S          | I        | 620                    |   |
| Fenpropidin [ISO]                 | 67306-00-7  |       |           | L          | F        | 1440                   |   |
| Fenprothrin [ISO]                 | 64257-84-7  | 3349  | PY        | S          | I        | c66                    | See note 9, p. 7; JMPR 1994   |
| Fenthion [ISO]                    | 55-38-9     | 3018  | OP        | L          | I,L      | D586                   | DS 23; ICSC 655; JMPR 1998b   |
| Fentin acetate[(ISO)]             | 900-95-8    | 2786  | OT        | S          | F        | 125                    | DS 22; EHC 15; JMPR 1992; CICAD 13  |
| Fentin hydroxide[(ISO)]           | 76-87-9     | 2786  | OT        | S          | F        | 108                    | DS 22; EHC 15; ICSC 1283; JMPR 1992; CICAD 13                                 |
| Fenvalerate [ISO]                 | 51630-58-1  | 3352  | PY        | L          | I        | c450                   | See note 9, p. 7; DS90; EHC 95, HSG 34; IARC 53; ICSC 273; JMPR 1985c         |
| Fipronil                          | 120068-37-3 | 2588  |           | S          | I        | 92                     | JMPR 1998b, 2001  |
| Fluxofenim [ISO]                  | 88485-37-4  |       |           | oil        | H        | 670                    |   |
| Fuberidazole [ISO]                | 3878-19-1   |       |           | S          | F        | 336                    |   |

Table 3. Moderately hazardous (Class II) technical grade active ingredients in pesticides, continued

| Common name                 | CAS no      | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks   |
|-----------------------------|-------------|-------|-----------|------------|----------|------------------------|---|
| Gamma-HCH [ISO], Lindane    | 58-89-9     | 2761  | OC        | S          | I        | 88                     | JMPR 2003b; See note 3  |
| Guazatine                   | 108173-90-6 |       |           | S          | FST      | 230                    | LD50 value refers to triacetate; JMPR 1998b                           |
| Haloxypop                   | 69806-34-4  |       |           | S          | H        | 393                    | JMPR 1996b  |
| HCH [ISO]                   | 608-73-1    | 2761  | OC        | S          | I        | 100                    | See notes 2, 3 and 4; EHC 123; IARC 20, Suppl 7; ICSC 487; JMPR 1974  |
| Imazalil [ISO]              | 35554-44-0  | 2588  |           | S          | F        | 320                    | ICSC 1303; JMPR 2001, 2002  |
| Imidacloprid [ISO]          | 138261-41-3 |       |           | S          | I        | 450                    | JMPR 2002   |
| Iminoctadine [ISO]          | 13516-27-3  |       |           | S          | F        | 300                    | Eye irritant  |
| loxynil [ISO]               | 1689-83-4   | 2588  |           | S          | H        | 110                    | ICSC 900  |
| loxynil octanoate [(ISO)]   | 3861-47-0   |       |           | S          | H        | 390                    |   |
| Isoprocarb [ISO]            | 2631-40-5   | 2757  | C         | S          | I        | 403                    |   |
| Lambda-cyhalothrin          | 2164-08-1   | 3349  | PY        | S          | I        | c56                    | See note 9, p. 7; HSG 38  |
| Mercurous chloride [C]      | 10112-91-1  | 2025  | HG        | S          | F        | 210                    | See note 3; ICSC 984, CICAD 50  |
| Metaldehyde [ISO]           | 108-62-3    |       |           | S          | M        | 227                    | DS 93   |
| Metam-sodium [(ISO)]        | 137-42-8    | 2771  |           | S          | F-S      | 285                    |   |
| Methacrifos [ISO]           | 62610-77-9  |       | OP        | L          | I        | 678                    | JMPR 1991   |
| Methasulfocarb [ISO]        | 66952-49-6  | 2757  |           | S          | F        | 112                    |   |
| Methyl isothiocyanate [ISO] | 556-61-6    | 2588  |           | S          | F-S      | 72                     | Skin and eye irritant; see note 5                                     |
| Metolcarb [ISO]             | 1129-41-5   |       | C         | S          | I        | 268                    |   |
| Metribuzin [ISO]            | 21087-64-9  |       |           | S          | H        | 322                    |   |
| Molinate [ISO]              | 2212-67-1   |       | TC        | L          | H        | 720                    |   |
| Nabam [ISO]                 | 142-59-6    | 2771  |           | S          | F        | 395                    | Goitrogenic in rats   |
| Naled [ISO]                 | 300-76-5    | 3018  | OP        | L          | I        | 430                    | DS 39; ICSC 925   |
| Paraquat [ISO]              | 1910-42-5   | 2781  | BP        | S          | H        | 150                    | See note 6; DS 4; EHC 39; HSG 51; ICSC 5; JMPR 1987a, 2004            |
| Pebulate [ISO]              | 1114-71-2   |       | TC        | L          | H        | 1120                   |   |
| Permethrin [ISO]            | 52645-53-1  | 3352  | PY        | L          | I        | c500                   | See note 9, p. 7; DS 51; EHC 94; HSG 33; IARC 53; ICSC 312; JMPR 2000 |
| Phenthoate [ISO]            | 2597-03-7   | 3018  | OP        | L          | I        | c400                   | DS 48; JMPR 1985c   |
| Phosalone [ISO]             | 2310-17-0   | 2783  | OP        | S          | I        | 120                    | ICSC 797; JMPR 1998b, 2002  |
| Phosmet [ISO]               | 732-11-6    | 2783  | OP        | S          | I,AC     | 113                    | ICSC 543; JMPR 1995b, 1999, 2004                                      |
| Phoxim [ISO]                | 14816-18-3  |       | OP        | L          | I        | D1975                  | DS 31; JECFA 2000a  |

Table 3. Moderately hazardous (Class II) technical grade active ingredients in pesticides, continued

| Common name                | CAS no      | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks  |
|----------------------------|-------------|-------|-----------|------------|----------|------------------------|--|
| Piperophos [ISO]           | 24151-93-7  | 3018  | OP        | oil        | H        | 324                    |  |
| Pirimicarb [ISO]           | 23103-98-2  | 2757  | C         | S          | AP       | 147                    | JMPR 1983, 2005  |
| Prallethrin [ISO]          | 23031-36-9  | 3352  | PY        | oil        | I        | 460                    |  |
| Profenofos [ISO]           | 41198-08-7  | 3018  | OP        | L          | I        | 358                    | JMPR 1991  |
| Propiconazole [ISO]        | 60207-90-1  |       |           | L          | F        | 1520                   | JMPR 1988, 2005  |
| Propoxur [ISO]             | 114-26-1    | 2757  | C         | S          | I        | 95                     | DS 25; ICSC 191; JMPR 1990   |
| Prosulfocarb [ISO]         | 52888-80-9  |       | TC        | L          | H        | 1820                   |  |
| Prothiofos [ISO]           | 34643-46-4  |       | OP        | L          | I        | 925                    |  |
| Pyraclufos [ISO(*)]        | 77458-01-6  | 3018  | OP        | L          | I        | 237                    |  |
| Pyrazophos [ISO]           | 13457-18-6  | 2784  |           | S          | F        | 435                    | JMPR 1993  |
| Pyrethrins [C]             | 8003-34-7   |       |           | L          | I        | 500-1000               | Seen note 7; DS 11; JMPR 1971, 2000, 2004  |
| Pyroquilon [ISO]           | 57369-32-1  |       |           | S          | F        | 320                    |  |
| Quinalphos [ISO]           | 13593-03-8  | 2783  | OP        | S          | I        | 62                     |  |
| Quinalofop-p-tefuryl [ISO] | 119738-06-6 |       |           | L          | H        | 1012                   |  |
| Rotenone [C]               | 83-79-4     | 2588  |           | S          | I        | 132-1500               | See note 8; HSG 73; ICSC 944   |
| Spiroxamine [ISO(*)]       | 118134-30-8 |       |           | L          | F        | 500                    | Dermal LD50 1068 mg/kg; may cause skin sensitisation                             |
| TCA [ISO] (acid)           | 76-03-9     | 1839  |           | S          |          | 400                    | See note 2 to table 5, p. 34; ICSC 586   |
| Terbumeton [ISO]           | 33693-04-8  |       | T         | S          | H        | 483                    |  |
| Tetraconazole [ISO]        | 112281-77-3 |       |           | Oil        | F        | 1031                   |  |
| Thiacloprid                | 111988-49-9 |       |           | S          | I        | 444                    |  |
| Thiobencarb [ISO]          | 28249-77-6  |       | TC        | L          | H        | 1300                   |  |
| Thiocyclam [ISO]           | 31895-22-4  |       |           | S          | I        | 310                    |  |
| Thiodicarb [ISO]           | 59669-26-0  | 2757  | C         | S          | I        | 66                     | JMPR 2001  |
| Triazamate [ISO(*)]        | 112143-82-5 | 2588  |           | S          | AP       | 50-100                 |  |
| Trichlorfon [ISO]          | 52-68-6     |       | OP        | S          | I        | 250                    | DS 27; EHC 132; HSG 66; IARC 30, Suppl 7; ICSC 585; JMPR 1979; JECFA 2000b, 2003 |
| Tricyclazole [ISO]         | 41814-78-2  |       |           | S          | F        | 305                    |  |
| Tridemorph [ISO]           | 81412-43-3  |       |           | Oil        | F        | 650                    |  |
| Xylylcarb                  | 2425-10-7   |       | C         | S          | I        | 380                    |  |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JECFA : Evaluation by the Joint FAO/WHO Expert Committee on Food Additives; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

#### Notes to Class II

1. Bioallethrin, esbiothrin, esbiol, and esdepalléthrine are members of the series; their toxicity varies considerably within this series, according to concentrations of isomers.
2. The production and use of chlordane and DDT are strictly limited by the Stockholm convention on persistent organic pollutants, which entered into force on 17 May, 2004. See <http://www.pops.int/> .
3. The international trade of chlordane, DDT, Gamma-HCH, HCH, and mercury compounds is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See Table 7, p. 39.
4. HCH: The LD<sub>50</sub> varies according to the mixture of isomers. The value shown has been chosen, and the technical product placed in Class II, as a result of the cumulative properties of the beta isomer.
5. The melting point of methyl isothiocyanate (S) is 35°C.
6. Paraquat has serious delayed effects if absorbed. It is of relatively low hazard in normal use but may be fatal if the concentrated product is taken by mouth or spread on the skin.
7. Mixture of compounds present in *Pyrethrum cineraefolium* and other flowers;
8. Compounds from roots of *Derris* and *Lonchocarpus* spp

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| <p>THE FINAL CLASSIFICATION OF ANY PRODUCT<br/>DEPENDS ON ITS FORMULATION<br/>See Pages 6 &amp; 7, and the Annex</p> |
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Table 4. Slightly hazardous (Class III) technical grade active ingredients in pesticides

| Common name                  | CAS no            | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks  |
|------------------------------|-------------------|-------|-----------|------------|----------|------------------------|--|
| Acephate [ISO]               | 30560-19-1        |       | OP        | S          | I        | 945                    | JMPR 2003b   |
| Acetochlor [ISO]             | 34256-82-1        |       |           | L          | H        | 2950                   |  |
| Acifluorfen [ISO]            | 50594-66-6        |       |           | S          | H        | 1370                   | Strong irritant to eyes  |
| Alachlor [ISO]               | 15972-60-8        | 2588  |           | S          | H        | 930                    | See note 1, p. 30; DS 86; ICSC 371   |
| Allethrin [ISO]              | 584-79-2          |       | PY        | Oil        | I        | c685                   | See note 9, page 7; EHC 87; HSG 24; ICSC 212; JMPR 1965a                     |
| Ametryn [ISO]                | 834-12-8          |       | T         | S          | H        | 1110                   |  |
| Amitraz [ISO]                | 33089-61-1        |       |           | S          | AC       | 800                    | ICSC 98; JMPR 1999   |
| Azamethiphos [ISO]           | 35575-96-3        |       | OP        | S          | I        | 1010                   |  |
| Bensultap [ISO]              | 17606-31-4        |       |           | S          | I        | 1100                   |  |
| Bentazone [ISO]              | 25057-89-0        |       |           | S          | H        | 1100                   | HSG 48; ICSC 828; JMPR 1992, 1999, 2005                                      |
| <i>Butralin [ISO]</i>        | <i>33629-47-9</i> |       |           | <i>S</i>   | <i>H</i> | <i>1049</i>            | <i>Classification changed</i>  |
| Butoxydim [ISO]              | 138164-12-2       |       |           | S          | H        | 1635                   |  |
| Chinomethionat [ISO]         | 2439-01-2         |       |           | S          | AC,F     | 2500                   | JMPR 1988  |
| Chlormequat (chloride) [ISO] | 999-81-5          |       |           | S          | PGR      | 670                    | ICSC 781; JMPR 2000  |
| Chloroacetic acid [C]        | 79-11-8           | 1751  |           | S          | H        | 650                    | Irritant to skin and eyes; data refer to sodium salt; ICSC 235               |
| Copper hydroxide [C]         | 20427-59-2        |       | CU        | S          | F        | 1000                   |  |
| Copper oxychloride [C]       | 1332-40-7         |       | CU        | S          | F        | 1440                   |  |
| 4-CPA [ISO]                  | 122-88-3          |       | PAA       | S          | PGR      | 850                    |  |
| Cycloate [ISO]               | 1134-23-2         |       | TC        | L          | H        | >2000                  |  |
| Cyhexatin [ISO]              | 13121-70-5        |       | OT        | S          | AC       | 540                    | EHC 15; JMPR 1992, 1995b   |
| Cymoxanil [ISO]              | 57966-95-7        |       |           | S          | F        | 1196                   |  |
| Cyproconazole                | 94361-06-5        |       |           | S          | F        | 1020                   |  |
| Dazomet [ISO]                | 533-74-4          |       |           | S          | F-S      | 640                    | Irritant to skin and eyes; ICSC 786  |
| 2,4-DB                       | 94-82-6           |       |           | S          | H        | 700                    |  |
| Dicamba [ISO]                | 1918-00-9         |       |           | S          | H        | 1707                   | ICSC 139   |
| Dichlormid                   | 37764-25-3        |       |           | L          | H        | 2080                   |  |
| Dichlorobenzene [C]          | 106-46-7          |       |           | S          | FM       | 500-5000               | Mixture of isomers: ortho (3) 95-50-1, meta (3) 541-73-1, para (2B) 106-46-7 |
| Dichlorophen [ISO]           | 97-23-4           |       | OC        | S          | F        | 1250                   |  |
| Dichlorprop [ISO]            | 7547-66-2         |       |           | S          | H        | 800                    | ICSC 38  |
| Diclofop [ISO]               | 40483-25-2        |       |           | S          | H        | 565                    |  |

Table 4. Slightly hazardous (Class III) technical grade active ingredients in pesticides, continued

| Common name                     | CAS no      | UN no | Chem type | Phys state | Main use    | LD <sub>50</sub> mg/kg | Remarks                             |
|---------------------------------|-------------|-------|-----------|------------|-------------|------------------------|-------------------------------------|
| Dicofol [ISO]                   | 115-32-2    |       | OC        | S          | AC          | c690                   | DS 81; IARC 30; ICSC 752; JMPR 1993 |
| Diethyltoluamide [ISO]          | 134-62-3    |       |           | L          | RP (insect) | c2000                  | DS 80                               |
| Difenoconazole [ISO]            | 119446-68-3 |       |           | S          | F           | 1453                   |                                     |
| Dimepiperate [ISO]              | 61432-55-1  |       | TC        | S          | H           | 946                    |                                     |
| Dimethachlor [ISO]              | 50563-36-5  |       |           | S          | H           | 1600                   |                                     |
| Dimethametryn [ISO]             | 22936-75-0  |       | T         | L          | H           | 3000                   |                                     |
| Dimethipin [ISO]                | 55290-64-7  |       |           | S          | H           | 1180                   | JMPR 2000, 2005                     |
| Dimethylarsinic acid [C]        | 75-60-5     | 1572  | AS        | S          | H           | 1350                   | EHC 224                             |
| Diniconazole [ISO]              | 83657-24-3  |       |           | S          | F           | 639                    |                                     |
| Dinocap [ISO]                   | 39300-45-3  |       | NP        | S          | AC,F        | 980                    | ICSC 881; JMPR 1999                 |
| Diphenamid [ISO]                | 957-51-7    |       |           | S          | H           | 970                    | ICSC 763                            |
| Dithianon [ISO]                 | 3347-22-6   |       |           | S          | F           | 640                    | JMPR 1993                           |
| Dodine [ISO]                    | 2439-10-3   |       |           | S          | F           | 1000                   | JMPR 2001                           |
| Empenthrin [(1R) isomers] [ISO] | 54406-48-3  |       | PY        | Oil        | I           | >2280                  |                                     |
| Esprocarb [ISO]                 | 85785-20-2  |       | TC        | L          | H           | >2000                  | Skin and eye irritant               |
| Etridiazole [ISO]               | 2593-15-9   |       |           | L          | F           | 2000                   |                                     |
| Fenothiocarb [ISO]              | 62850-32-2  |       | C         | S          | L           | 1150                   |                                     |
| Ferimzone [ISO]                 | 89269-64-7  |       |           | S          | F           | 725                    |                                     |
| Fluazifop-p-butyl [ISO]         | 83066-88-0  |       |           | L          | H           | 2451                   |                                     |
| Fluchloralin [ISO]              | 33245-39-5  |       |           | S          | H           | 1550                   |                                     |
| Flufenacet [ISO(*)]             | 142459-58-3 |       |           | S          | H           | 600                    | May cause skin sensitization        |
| Fluoroglycofen                  | 77501-60-1  |       |           | S          | H           | 1500                   |                                     |
| Flurprimidol [ISO]              | 56425-91-3  |       |           | S          | PGR         | 709                    |                                     |
| Flusilazole                     | 85509-19-9  |       |           | S          | F           | 1110                   | JMPR 1996b                          |
| Flutriafol [ISO]                | 76674-21-0  |       |           | S          | F,FST       | 1140                   |                                     |
| Fomesafen [ISO]                 | 72178-02-0  |       | OC        | S          | H           | 1250                   |                                     |
| Furalaxyl [ISO]                 | 57646-30-7  |       |           | S          | F           | 940                    |                                     |
| Glufosinate [ISO]               | 53369-07-6  |       |           | S          | H           | 1625                   | JMPR 2000                           |
| Hexazinone [ISO]                | 51235-04-2  |       |           | S          | H           | 1690                   |                                     |

Table 4. Slightly hazardous (Class III) technical grade active ingredients in pesticides, continued

| Common name                             | CAS no      | UN no | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks   |
|---|-------------|-------|-----------|------------|----------|------------------------|---|
| Hydramethylnon                          | 67485-29-4  |       |           | S          | I        | 1200                   |   |
| Iprobenfos                              | 26087-47-8  |       |           | S          | F        | 600                    |   |
| Isoprothiolane [ISO]                    | 50512-35-1  |       |           | S          | F        | 1190                   |   |
| Isoproturon [ISO]                       | 34123-59-6  |       |           | S          | H        | 1800                   |   |
| Isouron [ISO]                           | 55861-78-4  |       |           | S          | H        | 630                    |   |
| Malathion [ISO]                         | 121-75-5    | 3082  | OP        | L          | I        | c2100                  | See note 2, p. 30; DS 29; IARC 30; ICSC 172; JMPR 1998b, 2004 |
| MCPA [ISO]                              | 94-74-6     |       | PAA       | S          | H        | 700                    | IARC 41, Suppl 7; ICSC 54                                     |
| MCPA-thioethyl [ISO]                    | 25319-90-8  |       | PAA       | S          | H        | 790                    |   |
| MCPB [ISO]                              | 94-81-5     |       |           | S          | H        | 680                    |   |
| Mecoprop [ISO]                          | 7085-19-0   |       |           | S          | H        | 930                    | ICSC 55   |
| Mecoprop-P [ISO]                        | 16484-77-8  |       |           | S          | H        | 1050                   |   |
| Mefluidide [ISO]                        | 53780-34-0  |       |           | S          | H        | 1920                   |   |
| Mepiquat [ISO]                          | 15302-91-7  |       |           | S          | PGR      | 1490                   |   |
| Metalaxyl [ISO]                         | 57837-19-1  |       |           | S          | F        | 670                    | JMPR 2003b  |
| Metamitron [ISO]                        | 41394-05-2  |       |           | S          | H        | 1183                   |   |
| Metconazole [ISO]                       | 125116-23-6 |       |           | S          | F        | 660                    |   |
| Methylarsonic acid [ISO]                | 124-58-3    |       | AS        | S          | H        | 1800                   | ICSC 755, EHC 224   |
| Metolachlor [ISO]                       | 51218-45-2  |       |           | L          | H        | 2780                   |   |
| Myclobutanil                            | 88671-89-0  |       |           | S          | F        | 1600                   | JMPR 1993   |
| 2-Napthoxyacetic acid [ISO]             | 120-23-0    |       |           | S          | PGR      | 600                    |   |
| Nitrapyrin [ISO]                        | 1929-82-4   |       |           | S          | B-S      | 1072                   |   |
| Nuarimol [ISO]                          | 63284-71-9  |       |           | S          | F        | 1250                   |   |
| Octhilinone [ISO]                       | 26530-20-1  |       |           | S          | F        | 1470                   |   |
| N-octylbicycloheptene dicarboximide [C] | 113-48-4    |       |           | L          | SY       | 2800                   |   |
| Oxadixyl                                | 77732-09-3  |       |           | A          | F        | 1860                   |   |
| Paclobutrazol [ISO]                     | 76738-62-0  |       |           | S          | PGR      | 1300                   | JMPR 1989   |
| Pendimethalin [ISO]                     | 40487-42-1  |       |           | S          | H        | 1050                   |   |
| Pimaricin                               | 7681-93-8   |       |           | S          | F        | 2730                   | See note 3, p. 30   |
| Pirimiphos-methyl [ISO]                 | 29232-93-7  |       | OP        | L          | I        | 2018                   | DS 49; JMPR 1993  |
| Prochloraz [ISO]                        | 67747-09-5  |       |           | S          | F        | 1600                   | JMPR 2003b  |
| Propachlor [ISO]                        | 1918-16-7   |       |           | S          | H        | 1500                   | DS 78; EHC 147; HSG 77  |
| Propanil [ISO]                          | 709-98-8    |       |           | S          | H        | c1400                  | ICSC 552  |

Table 4. Slightly hazardous (Class III) technical grade active ingredients in pesticides, continued

| Common name           | CAS no      | UN no | Chem type | Phys state | Main use      | LD <sub>50</sub> mg/kg | Remarks  |
|-----------------------|-------------|-------|-----------|------------|---------------|------------------------|--|
| Propargite [ISO]      | 2312-35-8   |       |           | L          | AC            | 2200                   | JMPR 2000  |
| Pyrazoxyfen [ISO]     | 71561-11-0  |       |           | S          | H             | 1644                   |  |
| Pyridaben [ISO]       | 96489-71-3  |       |           | S          | AC            | 820                    |  |
| Pyridaphenthion       | 119-12-0    |       | OP        | S          | I             | 769                    |  |
| Pyridate [ISO]        | 55512-33-9  |       |           | S          | H             | c2000                  |  |
| Pyrifenox [ISO]       | 88283-41-4  |       |           | L          | F             | 2900                   |  |
| Quinoclamine [ISO]    | 2797-51-5   |       |           | S          | H             | 1360                   |  |
| Quizalofop            | 76578-12-6  |       |           | S          | H             | 1670                   |  |
| Resmethrin [ISO]      | 10453-86-8  |       | PY        | S          | I             | 2000                   | See note 4, p. 30; EHC 92,DS 83,HSG 25;ICSC 324                |
| Sethoxydim [ISO]      | 74051-80-2  |       |           | L          | H             | 3200                   |  |
| Simetryn [ISO]        | 1014-70-6   |       | T         | S          | H             | 1830                   |  |
| Sodium chlorate [ISO] | 7775-09-9   | 1495  |           | S          | H             | 1200                   | ICSC 1117  |
| Sulfluramid [ISO]     | 4151-50-2   |       |           | S          | I             | 543                    |  |
| 2,3,6-TBA [ISO]       | 50-31-7     |       |           | S          | H             | 1500                   |  |
| Tebuconazole [ISO]    | 107534-96-3 |       |           | S          | F             | 1700                   | JMPR 1995b   |
| Tebufenpyrad [ISO(*)] | 119168-77-3 |       |           | S          | MT            | 595                    |  |
| Tebuthiuron [ISO]     | 34014-18-1  |       |           | S          | H             | 644                    |  |
| Thiram [ISO]          | 137-26-8    |       |           | S          | F             | 560                    | DS 71; EHC 78; IARC 53; ICSC 757; JMPR 1993, See note 5        |
| Tralkoxydim [ISO]     | 87820-88-0  |       |           | S          | H             | 934                    |  |
| Triadimefon [ISO]     | 43121-43-3  |       |           | S          | F             | 602                    | JMPR 1986b, 2005   |
| Triadimenol [ISO]     | 55219-65-3  |       |           | S          | FST           | 900                    | JMPR 1990, 2005  |
| Tri-allate [ISO]      | 2303-17-5   |       | TC        | L          | H             | 2165                   | HSG 89; ICSC 201   |
| Triclopyr [ISO]       | 55335-06-3  |       |           | S          | H             | 710                    |  |
| Triflumizole          | 99387-89-0  |       |           | S          | F             | 695                    | ICSC 1252  |
| Undecan-2-one [C]     | 112-12-9    |       |           | Oil        | RP, dogs,cats | 2500                   |  |
| Uniconazole [ISO]     | 83657-22-1  |       |           | S          | PGR           | 1790                   |  |
| XMC                   | 2655-14-3   |       | C         | S          | I             | 542                    |  |
| Ziram [ISO]           | 137-30-4    |       |           | S          | F             | 1400                   | Irritant to skin; DS 73; EHC 78; IARC 53; ICSC 348; JMPR 1997b |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

Notes to Class III:

1. Alachlor was previously classified as Class Ia pesticide due to its carcinogenicity in rats. But mechanistic studies have indicated that tumors are induced by a mechanism not relevant to humans.
2. Malathion: LD<sub>50</sub> value can vary according to impurities. This value has been adopted for classification purposes and is that of a technical product conforming to WHO specifications.
3. Pimaricin: antibiotic, identical with tennecetin and natamycin.
4. Resmethrin is a mixture of isomers, the trans isomer (70-80%) also being known as bioresmethrin and the *cis* isomer (20-30%) as cismethrin. Bioresmethrin alone is of much lower toxicity (oral LD<sub>50</sub> 9 000 mg/kg) and is the subject of DS 34. It appears in table 5.
5. The international trade of thiram is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See Table 7, p. 39.

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| <p>THE FINAL CLASSIFICATION OF ANY PRODUCT<br/>DEPENDS ON ITS FORMULATION<br/>See Pages 6 &amp; 7, and the Annex</p> |
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Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use

| Common name                        | CAS no      | Chem type | Phys state | Main use   | LD <sub>50</sub> mg/kg | Remarks  |
|------------------------------------|-------------|-----------|------------|------------|------------------------|--|
| Aclonifen                          | 74070-46-5  |           | S          | H          | >5000                  |  |
| Acrinathrin [ISO]                  | 101007-06-1 | PY        | S          | MT         | >5000                  |  |
| Alloxydim                          | 55634-91-8  |           | S          | H          | 2260                   |  |
| Amitrole [ISO]                     | 61-82-5     |           | S          | H          | 5000                   | EHC 158, DS 79; HSG 85; IARC 79; ICSC 631; JMPR 1998b                        |
| Ammonium sulfamate                 | 7773-06-0   |           | S          | H          | 3900                   |  |
| Ancymidol [ISO]                    | 12771-68-5  |           | S          | PGR        | 4500                   |  |
| Anthraquinone                      | 84-65-1     |           | S          | RP (birds) | >5000                  |  |
| Asulam [ISO]                       | 3337-71-1   |           | S          | H          | >4000                  |  |
| Atrazine [ISO]                     | 1912-24-9   | T         | S          | H          | c2000                  | DS 82; HSG 47; IARC 53; ICSC 99  |
| Azimsulfuron [ISO]                 | 120162-55-2 |           | S          | H          | >5000                  |  |
| Azoxystrobine [ISO]                | 131860-33-8 |           | S          | F          | >5000                  |  |
| <i>Bacillus thuringiensis (Bt)</i> | 68038-71-1  |           | S          | I          | >4000                  | EHC 217  |
| Benalaxyl [ISO]                    | 71626-11-4  |           | S          | F          | c4200                  | JMPR 1988  |
| Benazolin [ISO]                    | 3813-05-6   |           | S          | H          | 3200                   | Irritant to skin and eyes  |
| Benfluralin [ISO]                  | 1861-40-1   |           | S          | H          | >10000                 |  |
| Benfuresate                        | 68505-69-1  |           | S          | H          | 2031                   |  |
| Benomyl [ISO]                      | 17804-35-2  |           | S          | F          | >10000                 | EHC 148, DS 87; HSG 81; ICSC 382; JMPR 1996b. See note 3                     |
| Benoxacor [ISO]                    | 98730-04-2  |           | S          | H          | >5000                  | This molecule is not an active substance as such but is a "safener"          |
| Bensulfuron-methyl                 | 83055-99-6  |           | S          | H          | >5000                  |  |
| Bifenox [ISO]                      | 42576-02-3  |           | S          | H          | >6400                  |  |
| Bioresmethrin [ISO]                | 28434-01-7  | PY        | L          | I          | >7000                  | DS 34; EHC 92; HSG 25; ICSC 229; JMPR 1992                                   |
| Biphenyl                           | 92-52-4     |           | S          | F          | 3280                   | ICSC 106   |
| Bispyribac                         | 125401-75-4 |           | S          | H          | 2635                   |  |
| <i>Bitertanol</i>                  | 55179-31-2  |           | S          | F          | >5000                  | JMPR 1999; See note 1  |
| Borax [ISO]                        | 1303-96-4   |           | S          | F          | 4500                   | ICSC 567   |
| Bromacil [ISO]                     | 314-40-9    |           | S          | H          | 5200                   |  |
| Bromobutide                        | 74712-19-9  |           | S          | H          | >5000                  |  |
| Bromopropylate [ISO]               | 18181-80-1  |           | S          | AC         | >5000                  | JMPR 1994  |
| Bupirimate [ISO]                   | 41483-43-6  |           | S          | F          | c4000                  |  |
| Buprofezin [ISO]                   | 69327-76-0  |           | S          | I          | 2200                   | JMPR 1992  |
| Butachlor                          | 23184-66-9  |           | L          | H          | 3300                   |  |
| Butylate [ISO]                     | 2008-41-5   | TC        | L          | F          | >4000                  |  |
| Captan [ISO]                       | 133-06-2    |           | S          | F          | 9000                   | Irritant to skin; DS 9; HSG 50; IARC 30, Suppl 7; ICSC 120; JMPR 1996b, 2005 |
| Carbendazim [ISO]                  | 10605-21-7  |           | S          | F          | >10000                 | DS 89; EHC 149; HSG 82; ICSC 1277; JMPR 1996b                                |
| Carbetamide [ISO]                  | 16118-49-3  | C         | S          | H          | >10000                 |  |
| Carboxin [ISO]                     | 5234-68-4   |           | S          | FST        | 3820                   |  |
| Carpropamid [ISO(*)]               | 104030-54-8 |           | L          | F          | >5000                  |  |
| Chloransulam methyl                | 14750-35-4  |           |            | H          | >5000                  |  |

Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use, continued

| Common name                  | CAS no      | Chem type | Phys state | Main use    | LD <sub>50</sub> mg/kg | Remarks                                       |
|------------------------------|-------------|-----------|------------|-------------|------------------------|---|
| Chlorfluazuron               | 71422-67-8  |           | S          | IGR         | 8500                   |   |
| Chloridazon [ISO]            | 1698-60-8   |           | S          | H           | 2420                   |   |
| Chlorimuron                  | 99283-00-8  |           | S          | H           | 4102                   |   |
| Chlorothalonil [ISO]         | 1897-45-6   |           | S          | F           | >10000                 | EHC 183; HSG 98; IARC 73; ICSC 134; JMPR 1993 |
| Chlorotoluron [ISO]          | 15545-48-9  |           | S          | H           | >10000                 |   |
| Chlorpropham [ISO]           | 101-21-3    | C         | S          | PGR         | >5000                  | IARC 12, Suppl 7; JMPR 2001                   |
| Chlorpyrifos methyl [ISO]    | 5598-13-0   | OP        | S          | I           | >3000                  | DS 33; JMPR 1993                              |
| Chlorsulfuron                | 64902-72-3  |           | S          | H           | 5545                   |   |
| Chlorthal-dimethyl [ISO]     | 1861-32-1   |           | S          | H           | >3000                  |   |
| Chlozolate                   | 84332-86-5  |           | S          | F           | >4000                  |   |
| Cinmethylin                  | 87818-31-3  |           | L          | H           | 3960                   |   |
| Cinosulfuron [ISO]           | 94593-91-6  |           | S          | H           | >5000                  |   |
| Clofentezine [ISO(*)]        | 74115-24-5  |           | S          | AC          | >5200                  | JMPR 1987a                                    |
| Clomeprop                    | 84496-56-0  |           | S          | H           | >5000                  |   |
| Clopyralid                   | 57754-85-5  |           | S          | H           | 4300                   | Severe irritant to eyes                       |
| Cloxyfonac                   | 32791-87-0  | PAA       | S          | PGR         | >5000                  |   |
| Cryolite [C]                 | 15096-52-3  |           | S          | I           | >10000                 |   |
| Cycloprothrin                | 63935-38-6  | PY        | L          | I           | >5000                  |   |
| Cyclosulfamuron [ISO(*)]     | 136849-15-5 |           | S          | H           | >5000                  |   |
| Cycloxydim                   | 101205-02-1 |           | S          | H           | 3900                   | JMPR 1993                                     |
| Cyhalofop [ISO]              | 122008-85-9 |           | S          | H           | >5000                  |   |
| Cyromazine                   | 66215-27-8  |           | S          | L           | 3300                   | JMPR 1991                                     |
| Daimuron                     | 42609-52-9  |           | S          | H           | >5000                  |   |
| Dalapon                      | 75-99-0     |           | S          | H           | 9330                   |   |
| Daminozide [ISO]             | 1596-84-5   |           | S          | H           | 8400                   | JMPR 1992                                     |
| Desmedipham [ISO]            | 13684-56-5  |           | S          | H           | >9600                  |   |
| Diafenthiuron [ISO]          | 80060-09-9  |           | S          | AC          | 2068                   |   |
| Dichlobenil [ISO]            | 1194-65-6   |           | S          | H           | 3160                   | ICSC 867                                      |
| Dichlofluanid [ISO]          | 1085-98-9   |           | S          | F           | >5000                  | JMPR 1985a                                    |
| Diclomezine                  | 62865-36-5  |           | S          | F           | >10000                 |   |
| Dicloran                     | 99-30-9     |           | S          | F           | 4000                   | ICSC 871; JMPR 1999                           |
| Diclosulam [ISO]             | 145701-21-9 |           |            | H           | >5000                  |   |
| Diethofencarb                | 87130-20-9  |           | S          | F           | >5000                  |   |
| Diflubenzuron                | 35367-38-5  |           | S          | L           | >4640                  | DS 77, EHC 184; HSG 99; JMPR 2002             |
| Diflufenican [ISO(*)]        | 83164-33-4  |           | S          | H           | >2000                  |   |
| Dikegulac [ISO]              | 18467-77-1  |           | S          | PGR         | >10000                 |   |
| Dimefuron [ISO]              | 34205-21-5  |           | S          | H           | >2000                  |   |
| Dimethirimol [ISO]           | 5221-53-4   |           | S          | F           | 2350                   |   |
| Dimethomorph [ISO]           | 110488-70-5 |           | S          | F           | >5000                  |   |
| Dimethyl phthalate [C]       | 131-11-3    |           | L          | RP (insect) | 8200                   | ICSC 261                                      |
| Dinitramine [ISO]            | 29091-05-2  |           | S          | H           | 3000                   |   |
| Dipropyl isocinchomerate [C] | 3737-22-2   |           | L          | RP (fly)    | 5230                   |   |
| Dithiopyr [ISO]              | 97886-45-8  |           | S          | H           | >5000                  |   |
| Diuron [ISO]                 | 330-54-1    |           | S          | H           | 3400                   |   |
| Dodemorph [ISO]              | 1593-77-7   |           | L          | H           | 4500                   |   |
| Ethalfuralin [ISO]           | 55283-68-6  |           | S          | H           | >10000                 |   |
| Ethephon                     | 16672-87-0  |           | S          | PGR         | >4000                  | JMPR 1994; 2003b                              |
| Ethirimol [ISO]              | 23947-60-6  |           | S          | FST         | 6340                   |   |

Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use, continued

| Common name                             | CAS no      | Chem type | Phys state | Main use    | LD <sub>50</sub> mg/kg | Remarks   |
|---|-------------|-----------|------------|-------------|------------------------|---|
| Ethofumesate [ISO]                      | 26225-79-6  |           | S          | H           | >6400                  |   |
| <i>Ethyl butylacetylaminopropionate</i> | 52304-36-6  |           | L          | RP (insect) | >5000                  | See note 1  |
| Etofenprox                              | 80844-07-1  |           | S          | I           | >10000                 | JMPR 1994   |
| Famoxadone [ISO(*)]                     | 131807-57-3 |           | S          | F           | >5000                  | JMPR 2004   |
| Fenarimol [ISO]                         | 60168-88-9  |           | S          | F           | 2500                   | JMPR 1996b  |
| <i>Fenbuconazole</i>                    | 114369-43-6 |           | S          | F           | >2000                  | Dermal LD <sub>50</sub> > 5000 mg/kg; JMPR 1998       |
| Fenbutatin oxide [ISO]                  | 13356-08-6  | OT        | S          | MT          | 2630                   | EHC 15; JMPR 1993                                     |
| Fenchlorazole [ISO]                     | 103112-35-2 |           | S          | H           | >5000                  |   |
| Fenclozim                               | 3740-92-9   |           | S          | H           | >5000                  |   |
| Fenfuram [ISO]                          | 24691-80-3  |           | S          | FST         | >10000                 |   |
| Fenhexamid [ISO(*)]                     | 126833-17-8 |           | S          | F           | >5000                  |   |
| Fenoxycarb                              | 79127-80-3  | C         | S          | I           | >10000                 |   |
| Fenpiclonil                             | 74738-17-3  |           | S          | FST         | >5000                  |   |
| Fenpropimorph                           | 67564-91-4  |           | oil        | F           | 3515                   | JMPR 1995b, 2002, 2005                                |
| Ferbam [ISO]                            | 14484-64-1  |           | S          | F           | >10000                 | DS 94; EHC 78; IARC 42, Suppl 7; ICSC 792; JMPR 1997b |
| Flamprop-M                              | 90134-59-1  |           | S          | H           | >3000                  |   |
| <i>Florasulam</i>                       | 145701-23-1 |           | S          | H           | >5000                  | Dermal LD <sub>50</sub> > 2000                        |
| Flucarbazone-sodium                     | 181274-17-9 |           | S          | H           | > 5000                 |   |
| Flucycloxuron [ISO]                     | 94050-52-9  |           | S          | AC          | >5000                  |   |
| Flufenoxuron                            | 101463-69-8 |           | S          | I           | >3000                  |   |
| Flumetralin                             | 62924-70-3  |           | S          | PGR         | >5000                  |   |
| Flumetsulam [ISO]                       | 98967-40-9  |           | S          | H           | >5000                  |   |
| Fluometuron [ISO]                       | 2164-17-2   |           | S          | H           | >8000                  |   |
| Flupropanate                            | 756-09-2    |           | S          | H           | >10000                 |   |
| Flupyrsulfuron [ISO]                    | 144740-54-5 |           | S          | H           | >5000                  |   |
| Flurenol [ISO]                          | 467-69-6    |           | S          | PGR         | >5000                  |   |
| Fluridone [ISO]                         | 59756-60-4  |           | S          | H           | >10000                 |   |
| Flurochloridone                         | 61213-25-0  |           | S          | H           | 4000                   |   |
| Fluroxypyr                              | 69377-81-7  |           | S          | H           | >5000                  |   |
| Fluthiacet                              | 149253-65-6 |           | S          | H           | >5000                  |   |
| Flutolanil                              | 66332-96-5  |           | S          | F           | >10000                 | ICSC 1265; JMPR 2003b                                 |
| tau-Fluvalinate                         | 102851-06-9 | PY        | oil        | I           | >3000                  | Skin and eye irritant                                 |
| Folpet                                  | 133-07-3    |           | S          | F           | >10000                 | HSG 72; ICSC 156; JMPR 1996b                          |
| Fosamine [ISO]                          | 25954-13-6  | OP        | S          | H           | 2400                   |   |
| Fosetyl                                 | 15845-66-2  |           | S          | F           | 5800                   |   |
| Gibberellic acid                        | 77-06-5     |           | S          | PGR         | >10000                 |   |
| Glyphosate [ISO]                        | 1071-83-6   |           | S          | H           | 4230                   | EHC 159, DS 91; ICSC 160; JMPR 1987a                  |
| <i>Halofenozide</i>                     | 112226-61-6 |           | S          | I           | 2850                   | Dermal LD <sub>50</sub> > 2000                        |
| Hexaconazole                            | 79983-71-4  |           | S          | F           | 2180                   | JMPR 1991   |
| Hexaflumuron [ISO]                      | 86479-06-3  |           | S          | I           | >5000                  | ICSC 1266   |
| Hexythiazox                             | 78587-05-0  |           | S          | AC          | >5000                  | JMPR 1992   |
| Hydroprene [ISO]                        | 41205-09-8  |           | L          | IGR         | >10000                 |   |
| 2-Hydroxyethyl octyl sulphide [C]       | 3547-33-9   |           | L          | RP (insect) | 8530                   |   |
| Hymexazol                               | 10004-44-1  |           | S          | FST         | 3900                   |   |
| Imazamethabenzmethyl [(ISO)]            | 81405-85-8  |           | S          | H           | >5000                  |   |
| Imazapyr                                | 81334-34-1  |           | S          | H           | >5000                  | Irritant to eyes                                      |
| Imazaquin                               | 81335-37-7  |           | S          | H           | >5000                  |   |

Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use, continued

| Common name               | CAS no             | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks   |
|---------------------------|--------------------|-----------|------------|----------|------------------------|---|
| Imazethapyr               | 81335-77-5         |           | S          | H        | >5000                  |   |
| Imibenconazole [ISO]      | 86598-92-7         |           | S          | F        | >5000                  |   |
| Inabenfide                | 82211-24-3         |           | S          | PGR      | >10000                 |   |
| Iprodione [ISO]           | 36734-19-7         |           | S          | F        | 3500                   | JMPR 1996b  |
| Iprovalicarb              | 140923-17-7        |           | S          | F        | >5000                  |   |
| Isoxaben                  | 82558-50-7         |           | S          | H        | >10000                 |   |
| Kasugamycin               | 19408-46-9         |           | S          | F        | >10000                 |   |
| Lenacil [ISO]             | 2164-08-1          |           | S          | H        | >10000                 |   |
| Linuron [ISO]             | 330-55-2           |           | S          | H        | 4000                   | ICSC 1300   |
| Maleic hydrazide [C]      | 10071-13-3         |           | S          | PGR      | 6950                   | IARC 4, Suppl 7; JMPR 1997b<br>CAS no 123-33-1 for dione tautomer               |
| Mancozeb                  | 8018-01-7          |           | S          | F        | >8000                  | Irritant to skin on multiple exposure;<br>DS 94; EHC 78; ICSC 754;<br>JMPR 1994 |
| Maneb [ISO]               | 12427-38-2         |           | S          | F        | 6750                   | Irritant to skin on multiple exposure;<br>DS 94; EHC 78; ICSC 173;<br>JMPR 1994 |
| Mefenacet                 | 73250-68-7         |           | S          | H        | >5000                  |   |
| Mepanipyrim [ISO]         | 110235-47-7        |           | S          | F        | >5000                  |   |
| Mepronil [ISO]            | 55814-41-0         |           | S          | F        | >10000                 |   |
| Metazachlor               | 67129-08-2         |           | S          | H        | 2150                   |   |
| Methabenzthiazuron [ISO]  | 18691-97-9         |           | S          | H        | >2500                  |   |
| Methoprene [ISO]          | 40596-69-8         |           | L          | IGR      | >10000                 | DS 47; JMPR 2002  |
| Methoxychlor [ISO]        | 72-43-5            | OC        | S          | I        | 6000                   | DS 28; IARC 20, Suppl 7; ICSC 1306;<br>JMPR 1978                                |
| <i>Methoxyfenozide</i>    | <i>161050-58-4</i> |           | <i>S</i>   | <i>I</i> | <i>&gt;5000</i>        | <i>Dermal LD50 &gt; 5000; JMPR 2004</i>   |
| Methylmymron              | 42609-73-4         |           | S          | H        | 3948                   |   |
| Metiram                   | 9006-42-2          |           | S          | F        | >10000                 | JMPR 1994   |
| Metobromuron [ISO]        | 3060-89-7          |           | S          | H        | 2500                   |   |
| Metosulam                 | 139528-85-1        |           | S          | H        | >5000                  |   |
| Metoxuron                 | 19937-59-8         |           | S          | H        | >3200                  |   |
| Metsulfuron methyl        | 74223-64-6         |           | S          | H        | >5000                  |   |
| Monolinuron               | 1746-81-2          |           | S          | H        | 2250                   | ICSC 1273   |
| 2-(1-Naphthyl) acetamide  | 86-86-2            |           | S          | PGR      | 6400                   |   |
| 1-Naphthylacetic acid     | 86-87-3            |           | S          | PGR      | c3000                  |   |
| Napropamide               | 15299-99-7         |           | S          | H        | 5000                   |   |
| Naptalam                  | 132-66-1           |           | S          | PGR      | 8200                   |   |
| Neburon [ISO]             | 555-37-3           |           | S          | H        | >10000                 |   |
| Niclosamide [ISO]         | 50-65-7            |           | S          | M        | 5000                   | DS 63   |
| Nicosulfuron [ISO]        | 111991-09-4        |           | S          | H        | >5000                  | Irritant to eyes  |
| Nitrothal-isopropyl [ISO] | 10552-74-6         |           | S          | F        | 6400                   |   |
| Norflurazon [ISO]         | 27314-13-2         |           | S          | H        | >8000                  |   |
| <i>Noviflumuron</i>       | <i>121451-02-3</i> |           | <i>S</i>   | <i>I</i> | <i>&gt;5000</i>        | <i>Dermal LD50 &gt; 5000; See note 1</i>  |
| Ofurace                   | 58810-48-3         |           | S          | F        | 2600                   |   |
| Oryzalin [ISO]            | 19044-88-3         |           | S          | H        | >10000                 |   |
| Oxabetrinil               | 74782-23-3         |           | S          | H        | >5000                  |   |
| Oxadiazon [ISO]           | 19666-30-9         |           | S          | H        | >8000                  |   |
| Oxine-copper [ISO]        | 10380-28-6         | CU        | S          | F        | 7792                   |   |
| Oxycarboxin [ISO]         | 5259-88-1          |           | S          | F        | 2000                   |   |
| Oxyfluorfen [ISO]         | 42874-03-3         |           | S          | H        | >5000                  |   |
| Penconazole               | 66246-88-6         |           | S          | F        | 2120                   | JMPR 1993   |
| Pencycuron                | 66063-05-6         |           | S          | F        | >5000                  |   |

Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use, continued

| Common name              | CAS no      | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks  |
|--------------------------|-------------|-----------|------------|----------|------------------------|--|
| <i>Penoxsulam</i>        | 219714-96-2 |           | S          | H        | >5000                  | <i>Dermal LD<sub>50</sub> &gt; 5000</i>                                  |
| Pentachlor               | 2307-68-8   |           | S          | H        | >10000                 |  |
| Phenmedipham [ISO]       | 13684-63-4  |           | S          | H        | >8000                  |  |
| Phenothrin [ISO]         | 26002-80-2  | PY        | L          | I        | >5000                  | DS 85; EHC 96; HSG 32; ICSC 313; JMPR 1989                               |
| 2-Phenylphenol [C]       | 90-43-7     |           | S          | F        | 2480                   | ICSC 669; IARC 73; JMPR 2000   |
| Phosphorus acid [C]      | 13598-36-2  |           | L          | F        | >5000                  |  |
| Phthalide                | 27355-22-2  |           | S          | F        | >10000                 |  |
| Picloram [ISO]           | 1918-02-1   |           | S          | H        | 8200                   | ICSC 1246  |
| Piperonyl butoxide       | 51-03-6     |           | Oil        | SY       | >7500                  | IARC 30, Suppl 7; JMPR 1996b   |
| Pretilachlor [ISO]       | 51218-49-6  |           | L          | H        | 6100                   |  |
| Primisulfuron [ISO]      | 113036-87-6 |           | S          | H        | >5050                  |  |
| Probenazole              | 27605-76-1  |           | S          | F        | 2030                   |  |
| Procymidone [ISO]        | 32809-16-8  |           | S          | F        | 6800                   | JMPR 1990  |
| Prodiamine [ISO]         | 29091-21-2  |           | S          | H        | >5000                  |  |
| Prometon [ISO]           | 1610-18-0   | T         | S          | H        | 2980                   |  |
| Prometryn [ISO]          | 7287-19-6   | T         | S          | H        | 3150                   |  |
| Propamocarb              | 24579-73-5  |           | S          | F        | 8600                   | JMPR 1987a   |
| Propaquizafop            | 111479-05-1 |           | S          | H        | >5000                  | ICSC 1271  |
| Propazine [ISO]          | 139-40-2    | T         | S          | H        | >5000                  | ICSC 697   |
| Propham [ISO]            | 122-42-9    |           | S          | H        | 5000                   | IARC 12, Suppl 7; JMPR 1993  |
| Propineb [ISO]           | 12071-83-9  |           | S          | H        | 8500                   | DS 94; EHC 78; JMPR 1994   |
| Propyzamide [ISO]        | 23950-58-5  |           | S          | H        | 5620                   |  |
| Pyrazolynate [ISO]       | 58011-68-0  |           | S          | H        | 9550                   |  |
| Pyrazosulfuron [ISO]     | 98389-04-9  |           | S          | H        | >5000                  |  |
| Pyrimethanil [ISO]       | 53112-28-0  |           | S          | F        | 4150                   |  |
| Pyriminobac              | 136191-56-5 |           | S          | H        | >5000                  |  |
| Pyriproxyfen [ISO]       | 95737-68-1  |           | S          | I        | >5000                  | ICSC 1269; JMPR 2000   |
| Pyrithiobac sodium [ISO] | 123343-16-8 |           | S          | H        | 3200                   |  |
| Quinclorac               | 84087-01-4  |           | S          | H        | 2680                   |  |
| Quinmerac [ISO]          | 90717-03-6  |           | S          | H        | >5000                  |  |
| Quinoxifen [ISO]         | 124495-18-7 |           |            | F        | >5000                  |  |
| Quintozene [ISO]         | 82-68-8     |           | S          | F        | >10000                 | EHC 41; HSG 23; IARC 5, Suppl 7; JMPR 1996b                              |
| Rimsulfuron [C]          | 122931-48-0 |           | S          | H        | >5000                  |  |
| Siduron [ISO]            | 1982-49-6   |           | S          | H        | >7500                  |  |
| Simazine                 | 122-34-9    | T         | S          | H        | >5000                  | ICSC 699   |
| Spinosad [ISO(*)]        | 168316-95-8 |           |            | I        | 3738                   | For Spinosyn A and D, CAS nos are 131929-60-7 and 131929-63-0; JMPR 2002 |
| Sulfometuron             | 74223-56-6  |           | S          | H        | >5000                  |  |
| Sulphur (UN number 1350) | 7704-34-9   |           | S          | F,I      | >3000                  | Skin and mucous membrane irritant. See note 2; ICSC 1166                 |
| TCA (sodium salt) [ISO]  | 650-51-1    |           | S          | H        | 3200                   | Irritant to skin and eyes: see note 3                                    |
| <i>Tebufenozide</i>      | 112410-23-8 |           | S          | I        | >5000                  | <i>Dermal LD<sub>50</sub> &gt; 5000; JMPR 1997b, 2004</i>                |
| Tebutam                  | 35256-85-0  |           | Oil        | H        | 6210                   |  |
| Tecnazene [ISO]          | 117-18-0    |           | S          | F        | >10000                 | EHC 42; HSG 12; JMPR 1995b   |
| Teflubenzuron            | 83121-18-0  |           | S          | I        | >5000                  | JMPR 1995b   |
| Temephos [ISO]           | 3383-96-8   | OP        | L          | I        | 8600                   | DS 8; ICSC 199   |
| Terbacil [ISO]           | 5902-51-2   |           | S          | H        | >5000                  |  |
| Terbutylazine [ISO]      | 5915-41-3   | T         | S          | H        | 2160                   |  |
| Terbutryn [ISO]          | 886-50-0    | T         | S          | H        | 2400                   |  |

Table 5. Technical grade active ingredients of pesticides unlikely to present acute hazard in normal use, continued

| Common name                   | CAS no      | Chem type | Phys state | Main use | LD <sub>50</sub> mg/kg | Remarks                                     |
|-------------------------------|-------------|-----------|------------|----------|------------------------|---|
| Tetrachlorvinphos [ISO]       | 22248-79-9  | OP        | S          | I        | 4000                   |   |
| Tetradifon [ISO]              | 116-29-0    |           | S          | AC       | >10000                 | EHC 67; HSG 11; ICSC 747                    |
| Tetramethrin [ISO]            | 7696-12-0   | PY        | S          | O        | >5000                  | EHC 98; HSG 31; ICSC 334                    |
| Thiabendazole [ISO]           | 148-79-8    |           | S          | F        | 3330                   | JECFA 1997, 2002                            |
| Thidiazuron                   | 51707-55-2  |           | S          |          | >4000                  |   |
| Thifensulfuron-methyl         | 79277-27-3  |           | S          | H        | >5000                  |   |
| <i>Thifluzamide</i>           | 130000-40-7 |           | S          | F        | >5000                  | <i>Dermal LD<sub>50</sub> &gt; 5000</i>     |
| Thiophanate-methyl [ISO]      | 23564-05-8  |           | S          | F        | >6000                  | JMPR 1996b, 1999                            |
| Tiocarbazil                   | 36756-79-3  | TC        | L          | H        | 10000                  |   |
| Tolclofos-methyl [ISO]        | 57018-04-9  |           | S          | F-S      | c5000                  | JMPR 1995b                                  |
| Tolyfluanid [ISO]             | 731-27-1    |           | S          | F        | >5000                  | JMPR 1989, 2003b                            |
| Transfluthrin [ISO]           | 118712-89-3 | PY        | S          | I        | >5000                  |   |
| Triasulfuron                  | 82097-50-5  |           | S          | H        | >5000                  |   |
| Tribenuron [ISO]              | 106040-48-6 |           | S          | H        | >5000                  |   |
| Trietazine [ISO]              | 1912-26-1   | T         | S          | H        | 2830                   | ICSC 202                                    |
| Triflumuron                   | 64628-44-0  |           | S          | PGR      | >5000                  |   |
| Trifluralin [ISO]             | 1582-09-8   |           | S          | H        | >10000                 | IARC 53; ICSC 205                           |
| Triflurosulfuron-methyl [ISO] | 126535-15-7 |           | S          | H        | >5000                  |   |
| Triforine [ISO]               | 26644-46-2  |           | S          | F        | >6000                  | JMPR 1998b                                  |
| Triticonazole [ISO]           | 131983-72-7 |           | S          | F        | >2000                  |   |
| Validamycin                   | 37248-47-8  |           | S          | F        | >10000                 |   |
| Vinclozolin [ISO]             | 50471-44-8  |           | S          | F        | 10000                  | JMPR 1996b                                  |
| Zineb [ISO]                   | 12122-67-7  |           | S          | F        | >5000                  | DS 94; EHC 78; IARC 12; ICSC 350; JMPR 1994 |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JECFA : Evaluation by the Joint FAO/WHO Expert Committee on Food Additives; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

Notes to table 5:

1. Sulphur dust can spontaneously ignite unless diluted about 50% with inert material.
2. TCA: The data shown refer to sodium trichloroacetic acid. In many countries, the same term (TCA) refers to the free acid (now accepted by ISO): this is a solid with an oral LD<sub>50</sub> of 400 mg/kg and if used as a pesticide would be placed in Class II. It is highly corrosive to skin.
3. The international trade of benomyl is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See Table 7, p. 39.

THE FINAL CLASSIFICATION OF ANY PRODUCT  
DEPENDS ON ITS FORMULATION  
See Pages 6 & 7, and the Annex

**TABLE 6. ACTIVE INGREDIENTS BELIEVED TO BE OBSOLETE OR DISCONTINUED FOR USE AS PESTICIDES**

Ingredients discontinued have been identified from the previous edition of this classification, from the Pesticide Manual (Pesticide Manual, 1991, 1994; 1997, 2003), and in some cases from the manufacturer. It is difficult, in some cases, to be sure whether or not all commercial activity in a substance has ceased; some of these materials are known to be still in use for non-agricultural purposes. IPCS will be grateful for details of any materials in this Section, which are still in commercial use. The common name and CAS number are indicated.

| Active ingredient          | CAS no     | Active ingredient            | CAS no     | Active ingredient                       | CAS no     |
|----------------------------|------------|------------------------------|------------|---|------------|
| Acrylonitrile              | 107-13-1   | Chloraniformethan            | 20856-57-9 | Demeton-S-methylsulphon                 | 17040-19-6 |
| Aldoxycarb                 | 1646-88-4  | Chloranil                    | 118-75-2   | <i>Desmetryn</i>                        | 1014-69-3  |
| Aldrin <sup>1,2</sup>      | 309-00-2   | Chloranocryl                 | 2164-09-2  | Dialifos                                | 10311-84-9 |
| Allidochlor                | 93-71-0    | Chlorbenseide                | 103-17-3   | Di-allate                               | 2303-16-4  |
| Allyxycarb                 | 6392-46-7  | Chlorbufam                   | 1967-16-4  | Diamidafos                              | 1754-58-1  |
| Amidithion                 | 919-76-6   | Chlorbicyclen                | 2550-75-6  | Dibromochloropropane                    | 96-12-8    |
| Aminocarb                  | 2032-59-9  | <i>Chlorbromuron</i>         | 13360-45-7 | Dibutyl phthalate                       | 84-74-2    |
| Anilazine                  | 101-05-3   | Chlordecone                  | 143-50-0   | Dibutyl succinate                       | 141-03-7   |
| ANTU                       | 86-88-4    | Chlordimeform <sup>1</sup>   | 6164-98-3  | Dichlofenthion                          | 97-17-6    |
| Aramite                    | 140-57-8   | Chlorfenac                   | 85-34-7    | 1,2-Dichloropropane                     | 78-87-5    |
| Arsenous oxide             | 1327-53-3  | Chlorfenethol                | 80-06-8    | Dichlozoline                            | 24201-58-9 |
| Athidathion                | 19691-80-6 | Chlorfenprop-methyl          | 14437-17-3 | Diclobutrazol                           | 75736-33-3 |
| Atraton                    | 1610-17-9  | Chlorfenson                  | 80-33-1    | Dieldrin <sup>1,2</sup>                 | 60-57-1    |
| Aziprotryne                | 4658-28-0  | Chlorfensulfide              | 22274-74-0 | <i>Dienochlor</i>                       | 2227-47-0  |
| Azothoate                  | 5834-96-8  | Chlorflurenol                | 2536-31-4  | Diethatyl                               | 38727-55-8 |
| Barban                     | 101-27-9   | Chlormebuform                | 37407-77-5 | Difenoxuron                             | 14214-32-5 |
| Barium carbonate           | 513-77-9   | Chlormethiuron               | 28217-97-2 | Dimefox                                 | 115-26-4   |
| Benodanil                  | 15310-01-7 | Chlornitrofen                | 1836-77-7  | Dimetilan                               | 644-64-4   |
| Benquinox                  | 495-73-8   | Chlorobenzilate <sup>1</sup> | 510-15-6   | Dimexano                                | 1468-37-7  |
| Benzoximate                | 29104-30-1 | Chloroneb                    | 2675-77-6  | Dinex                                   | 131-89-5   |
| Benzoylprop-ethyl          | 33878-50-1 | Chloropropylate              | 5836-10-2  | Dinocton                                | 32534-96-6 |
| Benzthiazuron              | 1929-88-0  | Chloroxuron                  | 1982-47-4  | Dinoseb <sup>1</sup>                    | 88-85-7    |
| Binapacryl <sup>1</sup>    | 485-31-4   | Chlorquinox                  | 3495-42-9  | Dinoseb acetate <sup>1</sup>            | 2813-95-8  |
| Bis(tributyltin) oxide     | 56-35-9    | Chlorphoxim                  | 14816-20-7 | Dioxabenzophos                          | 3811-49-2  |
| Bisthiosemi                | 39603-48-0 | <i>Chlorthiamid</i>          | 1918-13-4  | Dioxacarb                               | 6988-21-2  |
| Bromocyclen                | 1715-40-8  | Chlorthiophos                | 21923-23-9 | Dioxathion                              | 78-34-2    |
| <i>Bromofenoxim</i>        | 13181-17-4 | Cloethocarb                  | 51487-69-5 | Dipropetryn                             | 4147-51-7  |
| Bromophos                  | 2104-96-3  | Clofop                       | 26129-32-8 | Disul                                   | 149-26-8   |
| Bromophos-ethyl            | 4824-78-6  | Coumachlor                   | 81-82-3    | Ditalimfos                              | 5131-24-8  |
| Bufencarb                  | 8065-36-9  | Crimidine                    | 535-89-7   | Drazoxolon                              | 5707-69-7  |
| Butacarb                   | 2655-19-8  | Credazine                    | 14491-59-9 | Eglinazine                              | 6616-80-4  |
| Butam                      | 35256-85-0 | Crotoxyphos                  | 7700-17-6  | Endothion                               | 2778-04-3  |
| Butenachlor                | 87310-56-3 | Crufomate                    | 299-86-5   | Endrin <sup>2</sup>                     | 72-20-8    |
| Buthidazole                | 55511-98-3 | Cyanofenphos                 | 13067-93-1 | EPBP                                    | 3792-59-4  |
| Buthiobate                 | 51308-54-4 | Cyanthoate                   | 3734-95-0  | Erbon                                   | 136-25-4   |
| Butonate                   | 126-22-7   | Cycloheximide                | 66-81-9    | ESP (Oxydeprofos)                       | 2674-91-1  |
| Butopyronoxyl              | 532-34-3   | Cycluron                     | 2163-69-1  | Etacelasil                              | 37894-46-5 |
| Buturon                    | 3766-60-7  | Cyometrinil                  | 63278-33-1 | Etaconazole                             | 60207-93-4 |
| Calcium cyanamide          | 156-62-7   | Cypendazole                  | 28559-00-4 | Ethidimuron                             | 30043-49-3 |
| Camphechlor <sup>1,2</sup> | 8001-35-2  | Cyprofuram                   | 69581-33-5 | Ethiolate                               | 2941-55-1  |
| Carbamorph                 | 31848-11-0 | Cypromid                     | 2759-71-9  | Ethoate-methyl                          | 116-01-8   |
| Carbanolate                | 671-04-5   | Delachlor                    | 24353-58-0 | Ethohexadiol                            | 94-96-2    |
| Carbon disulfide           | 75-15-0    | Demephion-O                  | 682-80-4   | Ethyleneglycolbis<br>(trichloroacetate) | 2514-53-6  |
| Carbophenothion            | 786-19-6   | Demephion-S                  | 2587-90-8  | <i>Etrimfos</i>                         | 38260-54-7 |
| <i>Chlomethoxyfen</i>      | 32861-85-1 | Demeton-O                    | 298-03-3   |   |            |
| <i>Chloramben</i>          | 133-90-4   | Demeton-S                    | 126-75-0   |   |            |

**TABLE 6. ACTIVE INGREDIENTS BELIEVED TO BE OBSOLETE OR DISCONTINUED FOR USE AS PESTICIDES, continued**

| Active ingredient                | CAS no      | Active ingredient                                  | CAS no     | Active ingredient                | CAS no      |
|----------------------------------|-------------|--|------------|----------------------------------|-------------|
| EXD                              | 502-55-6    | Karbutilate  | 4849-32-5  | <i>Pindone</i>                   | 83-26-1     |
| Fenamiosulf                      | 140-56-7    | Kelevan  | 4234-79-1  | Piproctanyl                      | 69309-47-3  |
| Fenazaflor                       | 14255-88-0  | Kinoprene  | 42588-37-4 | <i>Pirimiphos-ethyl</i>          | 23505-41-1  |
| Fenchlorphos                     | 299-84-3    | Leptophos  | 21609-90-5 | Potassium cyanate                | 590-28-3    |
| Fenitropan                       | 65934-95-4  | Lythidathion                                       | 2669-32-1  | Profluralin                      | 26399-36-0  |
| Fenoprop (Silvex)                | 93-72-1     | Malonoben  | 10537-47-0 | Proglinazine                     | 68228-20-6  |
| Fenoxaprop-ethyl                 | 82110-72-3  | Mebenil  | 7055-03-0  | Promacyl                         | 34264-24-9  |
| Fenson                           | 80-38-6     | Mecarbinzid  | 27386-64-7 | Promecarb                        | 2631-37-0   |
| Fensulfothion                    | 115-90-2    | Mecarphon  | 29173-31-7 | <i>Propaphos</i>                 | 7292-16-2   |
| Fenthiaaprop                     | 95721-12-3  | Medinoterb acetate                                 | 2487-01-6  | Propyl isome                     | 83-59-0     |
| <i>Fenuron</i>                   | 101-42-8    | Menazon  | 78-57-9    | Prothiocarb                      | 19622-08-3  |
| <i>Fenuron-TCA</i>               | 4482-55-7   | Mephospholan                                       | 950-10-7   | Prothoate                        | 2275-18-5   |
| Flamprop                         | 58667-63-3  | Methazole  | 20354-26-1 | Proxan                           | 108-25-8    |
| Fluazifop                        | 69335-91-7  | Methiuron  | 21540-35-2 | Pydanon                          | 22571-07-9  |
| Flubenzimine                     | 37893-02-0  | Methoprotryne                                      | 841-06-5   | Pyracarbolid                     | 24691-76-7  |
| Fluenetil                        | 4301-50-2   | Methoxyethylmercury silicate <sup>1</sup>          | 64491-92-5 | Pyridiniril                      | 1086-02-8   |
| Fluorodifen                      | 15457-05-3  | Methoxyphenone                                     | 41295-28-7 | Quinacetol sulfate               | 57130-91-3  |
| Fluoromide                       | 13577-71-4  | Methoxymethyl mercury chloride <sup>1</sup>        | 123-88-6   | Quinonamid                       | 27541-88-4  |
| Fluotrimazole                    | 31251-03-3  | Methylmercury dicyan-diamide <sup>1</sup>          | 502-39-6   | Ryania                           | 8047-13-0   |
| Fluvalinate                      | 69409-94-5  | Metsulfovax  | 21542-18-6 | Sabadilla                        | 8051-02-3   |
| <i>Fonofos</i>                   | 944-22-9    | Mexacarbate  | 315-18-4   | Salicylanilide                   | 87-17-2     |
| Formothion                       | 2540-82-1   | Mipafox  | 371-86-8   | Schradan                         | 152-16-9    |
| Fosmethilan                      | 83733-82-8  | Mirex <sup>2</sup>                                 | 2385-85-5  | Scilliroside                     | 507-60-8    |
| Fosthietan                       | 21548-32-3  | Monalide   | 7187-36-7  | Secbumeton                       | 26259-45-0  |
| Furconazole-cis                  | 112839-32-4 | Monuron  | 150-68-5   | Sesamex                          | 51-14-9     |
| Furmecyclox                      | 60568-05-0  | Monuron-TCA  | 140-41-0   | <i>Sodium fluoride</i>           | 7681-49-4   |
| Glyodin                          | 556-22-9    | Morfamquat   | 4636-83-3  | <i>Sodium hexafluorosilicate</i> | 16893-85-9  |
| Glyphosine                       | 2439-99-8   | Myclozolin   | 54864-61-8 | Sulfallate                       | 95-06-7     |
| Griseofulvin                     | 126-07-8    | Naphthalene  | 91-20-3    | Sulfoxide                        | 120-62-7    |
| Halacrinatate                    | 34462-96-9  | Naphthalic anhydride                               | 81-84-5    | <i>Sulprofos</i>                 | 35400-43-2  |
| Haloxydine                       | 2693-61-0   | Nitralin   | 4726-14-1  | SWEP                             | 1918-18-9   |
| <i>Heptachlor</i> <sup>1,2</sup> | 76-44-8     | Nitrilacarb  | 29672-19-3 | 2,4,5-T <sup>1</sup>             | 93-76-5     |
| Heptopargil                      | 73886-28-9  | Nitrofen   | 1836-75-5  | TDE                              | 72-54-8     |
| Hexachloroacetone                | 116-16-5    | Norbormide   | 991-42-4   | TEPP                             | 107-49-3    |
| Hexaflurate                      | 17029-22-0  | Noruron  | 2163-79-3  | Terbucarb                        | 1918-11-2   |
| Hydroxyquinoline sulfate         | 134-31-6    | Oxapyrazon   | 4489-31-0  | Tetrasul                         | 2227-13-6   |
| Ipazine                          | 1912-25-0   | Oxydisulfoton                                      | 2497-07-6  | Thiazafluron                     | 25366-23-8  |
| IPSP                             | 5827-05-4   | Parafluron   | 7159-99-1  | Thicyofen                        | 116170-30-0 |
| <i>Isazofos</i>                  | 42509-80-8  | Perfluidone  | 37924-13-3 | Thionazin                        | 297-97-2    |
| Isobenzan                        | 297-78-9    | Phenisopham  | 57375-63-0 | Thiophanate                      | 23564-06-9  |
| Isobornyl thiocyno acetate       | 115-31-1    | Phenkapton   | 2275-14-1  | Thioquinox                       | 93-75-4     |
| Isocarbamid                      | 30979-48-7  | Phenobenzuron                                      | 3134-12-1  | Triamiphos                       | 1031-47-6   |
| Isocil                           | 314-42-1    | Phenylmercurydimethyl-dithiocarbamate <sup>1</sup> | 32407-99-1 | Triapenthenol                    | 76608-88-3  |
| Isodrin                          | 465-73-6    | Phenylmercury nitrate <sup>1</sup>                 | 8003-05-2  | Triarimol                        | 26766-27-8  |
| <i>Isofenphos</i>                | 25311-71-1  | Phosacetim   | 4104-14-7  | Tricamba                         | 2307-49-5   |
| Isomethiozin                     | 57052-04-7  | Phosdiphen   | 36519-00-3 | Trichlamide                      | 70193-21-4  |
| Isonoruron                       | 28805-78-9  | Phosfolan  | 947-02-4   | Trichloronat                     | 327-98-0    |
| Isopropalin                      | 33820-53-0  |  |            | Tridiphane                       | 58138-08-2  |
| Isothioate                       | 36614-38-7  |  |            | Trifenmorph                      | 1420-06-3   |
| Isoxapyrifop                     | 87757-18-4  |  |            | Trimethacarb                     | 12407-86-2  |
| Jodfenphos                       | 18181-70-9  |  |            | <i>Vernolate</i>                 | 1929-77-7   |

<sup>1</sup> The international trade of aldrin, binapacryl, camphechlor (toxaphene), chlordimeform, chlorobenzilate, dieldrin, dinoseb and dinoseb salts, heptachlor, mercury compounds, and 2,4,5-T is regulated by the Rotterdam convention on Prior Informed Consent (see <http://www.pic.int/>), which entered into force on 24 February 2004. See Table 7, p. 39.

<sup>2</sup> The use and production of aldrin, camphechlor (toxaphene), dieldrin, endrin, heptachlor and mirex is prohibited or severely restricted by the Stockholm convention on persistent organic pollutants, which entered into force on 17 May, 2004. See <http://www.pops.int/>

**TABLE 7. PESTICIDES SUBJECT TO THE PRIOR INFORMED CONSENT (PIC) PROCEDURE (UNEP 2004) <sup>1</sup>**

| <b>Class</b> | <b>Pesticide</b>   | <b>CAS number</b>   |
|--------------|--|---|
| O            | Aldrin <sup>2</sup>  | 309-00-2  |
| O            | Binapacryl   | 485-31-4  |
| Ia           | Captafol   | 2425-06-1   |
| II           | Chlordane <sup>2</sup>   | 57-74-9   |
| O            | Chlordimeform  | 6164-98-3   |
| O            | Chlorobenzilate  | 510-15-6  |
| II           | DDT <sup>2</sup>   | 50-29-3   |
|              | 1,2-Dibromoethane (EDB)  | 106-93-4  |
| O            | Dieldrin <sup>2</sup>  | 60-57-1   |
| O            | Dinoseb and dinoseb salts  | 88-85-7   |
| Ib           | DNOC and its salts (such as ammonium salt, potassium salt and sodium salt)   | 534-52-1; 2980-64-5;<br>5787-96-2; 2312-76-7  |
|              | Ethylene dichloride  | 107-06-2  |
|              | Ethylene oxide   | 75-21-8   |
| Ib           | Fluoroacetamide  | 640-19-7  |
| II           | HCH (mixed isomers)  | 608-73-1  |
| O            | Heptachlor <sup>2</sup>  | 76-44-8   |
| Ia           | Hexachlorobenzene <sup>2</sup>   | 118-74-1  |
| II           | Lindane  | 58-89-9   |
|              | Mercury compounds, including inorganic mercury compounds, alkyl mercury compounds and alkyloxyalkyl and aryl mercury compounds   |   |
| Ib           | Pentachlorophenol  | 87-86-5   |
| O            | 2,4,5-T  | 93-76-5   |
| O            | Toxaphene  | 8001-35-2   |
|              | Dustable powder formulations containing a combination of benomyl at or above 7%, carbofuran at above 10%, thiram at or above 15%   | 17804-35-2;<br>1563-66-2;<br>137-26-8   |
| Ib           | Methamidophos (soluble liquid formulations of the substance that exceed 600 g active ingredient/L)   | 10265-92-6  |
| Ia           | Methyl-parathion (emulsifiable concentrates (EC) with 19.5%, 40%, 50%, 60% active ingredient and dusts containing 1.5%, 2% and 3% active ingredient  | 298-00-0  |
| Ib           | Monocrotophos (all formulations)   | 6923-22-4   |
| Ia           | Parathion (all formulations – aerosols, dustable powder (DP), emulsifiable concentrate (EC), granules (GR) and wettable powders (WP) of this substance are included, except capsule suspensions (CS) | 56-38-2   |
| Ia           | Phosphamidon (soluble liquid formulations of the substance that exceed 1000 g active ingredient/L)   | 13171-21-6 [mixture, (E) & (Z) isomers]<br>23783-98-4 [(Z)-isomer]<br>297-99-4 [(E)-isomer] |

<sup>1</sup> According to the PIC Convention, export of a chemical can only take place with the prior informed consent of the importing Party. The PIC procedure is a means for formally obtaining and disseminating the decisions of importing countries as to whether they wish to receive future shipments of a certain chemical and for ensuring compliance to these decisions by exporting countries. The aim is to promote a shared responsibility between exporting and importing countries in protecting human health and the environment from the harmful effects of such chemicals (further information can be found at: <http://www.pic.int/>)

<sup>2</sup> The use and production of aldrin, chlordane, DDT, dieldrin, heptachlor and hexachlorobenzene is prohibited or severely restricted by the Stockholm convention on persistent organic pollutants, which entered into force on 17 May, 2004. See <http://www.pops.int/>

**TABLE 8. GASEOUS OR VOLATILE FUMIGANTS NOT CLASSIFIED UNDER THE WHO RECOMMENDED CLASSIFICATION OF PESTICIDES BY HAZARD**

The Classification does not set out any criteria for air concentrations on which classification could be based. Most of these compounds are of high hazard and recommended exposure limits for occupational exposure have been adopted by national authorities in many countries.

| <b>Pesticide</b>    | <b>CAS number</b> | <b>Remarks</b>                            |
|---------------------|-------------------|---|
| Aluminium phosphide | 20859-73-8        | DS 46; EHC 73; HSG 28; JMPR 1972          |
| Chloropicrin        | 76-06-2           | JMPR 1965b                                |
| 1,2-Dibromoethane   | 106-93-4          | EHC 177; IARC 71                          |
| 1,3-Dichloropropene | 542-75-6          | EHC 146; HSG 76; IARC 71                  |
| Ethylene dichloride | 107-06-2          | EHC 176; HSG 55; IARC 71                  |
| Ethylene oxide      | 75-21-8           | HSG 16; JMPR 1972; IARC 60; CICAD 54      |
| Formaldehyde        | 50-00-0           | HSG 57; IARC 62; CICAD 40                 |
| Hydrogen cyanide    | 74-90-8           | JMPR 1965b; CICAD 61                      |
| Magnesium phosphide | 12057-74-8        | DS 46; EHC 73; HSG 28; JMPR 1972          |
| Methyl bromide      | 74-83-9           | DS 5; EHC 166; HSG 86; JMPR 1972; IARC 71 |
| Phosphine           | 7803-51-2         | DS 46; EHC 73; HSG 28; JMPR 1972          |
| Sulfuryl fluoride   | 2699-79-8         |   |

EHC = Environmental Health Criteria Monograph; DS= Pesticide Data Sheet; HSG = Health and Safety Guide; IARC = IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; ICSC = International Chemical Safety Card; JMPR = Evaluation by the Joint FAO/WHO Meeting on Pesticide Residues.

## ANNEX

### HOW TO FIND THE HAZARD CLASS OF A FORMULATION

The following tables A-D can be used to find the hazard class of a formulation. These should be used only if toxicity data is not available on the formulation itself; see the note at the top of page 6.

The tables should be used as follows:

Step 1: What is the approved name of the active ingredient in the pesticide? Use the index to find the entry in tables 1-5 of the Guidelines.

Step 2: From the entry in the Guidelines, what is the route of application used for the classification? What is the physical state of the formulation?

If the route is O (oral) and the formulation is a solid, use table A of this Annex.

If the route is O (oral) and the formulation is a liquid, use table C of this Annex.

If the route is D (dermal) and the formulation is a solid, use table B of this Annex.

If the route is D (dermal) and the formulation is a liquid, use table D of this Annex.

Step 3: From the entry in the Guidelines, what is the LD<sub>50</sub> of the active ingredient.

Using the table A, B, C, or D, selected in Step 2, find the column along the top line which most nearly includes the LD<sub>50</sub> figure.

Step 4: What is the concentration % of the active ingredient in the formulation?

Using the same table A, B, C, or D, find the figure in the left hand column which most nearly includes this percentage figure.

Step 5: Find the square where the column selected in Step 3 crosses the line selected in Step 4. The number in this square is the approximate LD<sub>50</sub> of the formulation.

Step 6: The hazard classes are shown by blocks of squares. The hazard class of the formulation is that of the block in which lies the square selected in Step 5.

These tables can also be used to find the hazard class of mixtures. First see pages 6 and 7, para. 4 of the Guidelines and select the method to be used to arrive at the LD<sub>50</sub> of the mixture. For method (b), use the above method from Step 1, using the name of the more or most toxic ingredient. For method (c), pass to Step 4 using the total percentages of all active ingredients in the mixture.

Table A. LD<sub>50</sub> values and classification of formulations when the route is **oral** and the formulation **solid**

First row = Oral LD<sub>50</sub> of the active ingredient

First column = Percent concentration of the active ingredient in the formulation

|      | Class Ia |      |      |      | Class Ib |      |     |      |      |      |      |      | Class II |      |      |      |      |      |      |      |      |      | Class III |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
|------|----------|------|------|------|----------|------|-----|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|-----------|------|---------------|------|--------------|------|------------|----------|------|------|------|------|------|------|------|------|--|--|--|--|
|      | 1        | 3    | 5    | 10   | 15       | 20   | 25  | 30   | 35   | 40   | 45   | 50   | 60       | 70   | 80   | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250       | 300  | 350           | 400  | 450          | 500  | 600        | 700      | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |  |  |  |  |
| 100  | 1        | 3    | 5    | 10   | 15       | 20   | 25  | 30   | 35   | 40   | 45   | 50   | 60       | 70   | 80   | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250       | 300  | 350           | 400  | 450          | 500  | 600        | 700      | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |  |  |  |  |
| 95   | 1        | 3    | 5    | 11   | 16       | 21   | 26  | 32   | 37   | 42   | 47   | 53   | 63       | 74   | 84   | 95   | 105  | 126  | 147  | 168  | 189  | 211  | 263       | 316  | 368           | 421  | 474          | 526  | 632        | 737      | 842  | 947  | 1053 | 1263 | 1474 | 1684 | 1895 |      |  |  |  |  |
| 90   | 1        | 3    | 6    | 11   | 17       | 22   | 28  | 33   | 39   | 44   | 50   | 56   | 67       | 78   | 89   | 100  | 111  | 133  | 156  | 178  | 200  | 222  | 278       | 333  | 389           | 444  | 500          | 556  | 667        | 778      | 889  | 1000 | 1111 | 1333 | 1556 | 1778 |      |      |  |  |  |  |
| 85   | 1        | 4    | 6    | 12   | 18       | 24   | 29  | 35   | 41   | 47   | 53   | 59   | 71       | 82   | 94   | 106  | 118  | 141  | 165  | 188  | 212  | 235  | 294       | 353  | 412           | 471  | 529          | 588  | 706        | 824      | 941  | 1059 | 1176 | 1412 | 1647 | 1882 |      |      |  |  |  |  |
| 80   | 1        | 4    | 6    | 13   | 19       | 25   | 31  | 38   | 44   | 50   | 56   | 63   | 75       | 88   | 100  | 113  | 125  | 150  | 175  | 200  | 225  | 250  | 313       | 375  | 438           | 500  | 563          | 625  | 750        | 875      | 1000 | 1125 | 1250 | 1500 | 1750 | 2000 |      |      |  |  |  |  |
| 75   | 1        | 4    | 7    | 13   | 20       | 27   | 33  | 40   | 47   | 53   | 60   | 67   | 80       | 93   | 107  | 120  | 133  | 160  | 187  | 213  | 240  | 267  | 333       | 400  | 467           | 533  | 600          | 667  | 800        | 933      | 1067 | 1200 | 1333 | 1600 | 1867 |      |      |      |  |  |  |  |
| 70   | 1        | 4    | 7    | 14   | 21       | 29   | 36  | 43   | 50   | 57   | 64   | 71   | 86       | 100  | 114  | 129  | 143  | 171  | 200  | 229  | 257  | 286  | 357       | 429  | 500           | 571  | 643          | 714  | 857        | 1000     | 1143 | 1286 | 1429 | 1714 | 2000 |      |      |      |  |  |  |  |
| 65   | 2        | 5    | 8    | 15   | 23       | 31   | 38  | 46   | 54   | 62   | 69   | 77   | 92       | 108  | 123  | 138  | 154  | 185  | 215  | 246  | 277  | 308  | 385       | 462  | 538           | 615  | 692          | 769  | 923        | 1077     | 1231 | 1385 | 1538 | 1846 |      |      |      |      |  |  |  |  |
| 60   | 2        | 5    | 8    | 17   | 25       | 33   | 42  | 50   | 58   | 67   | 75   | 83   | 100      | 117  | 133  | 150  | 167  | 200  | 233  | 267  | 300  | 333  | 417       | 500  | 583           | 667  | 750          | 833  | 1000       | 1167     | 1333 | 1500 | 1667 | 2000 |      |      |      |      |  |  |  |  |
| 55   | 2        | 5    | 9    | 18   | 27       | 36   | 45  | 55   | 64   | 73   | 82   | 91   | 109      | 127  | 145  | 164  | 182  | 218  | 255  | 291  | 327  | 364  | 455       | 545  | 636           | 727  | 818          | 909  | 1091       | 1273     | 1455 | 1636 | 1818 |      |      |      |      |      |  |  |  |  |
| 50   | 2        | 6    | 10   | 20   | 30       | 40   | 50  | 60   | 70   | 80   | 90   | 100  | 120      | 140  | 160  | 180  | 200  | 240  | 280  | 320  | 360  | 400  | 500       | 600  | 700           | 800  | 900          | 1000 | 1200       | 1400     | 1600 | 1800 | 2000 |      |      |      |      |      |  |  |  |  |
| 45   | 2        | 7    | 11   | 22   | 33       | 44   | 56  | 67   | 78   | 89   | 100  | 111  | 133      | 156  | 178  | 200  | 222  | 267  | 311  | 356  | 400  | 444  | 556       | 667  | 778           | 889  | 1000         | 1111 | 1333       | 1556     | 1778 | 2000 |      |      |      |      |      |      |  |  |  |  |
| 40   | 3        | 8    | 13   | 25   | 38       | 50   | 63  | 75   | 88   | 100  | 113  | 125  | 150      | 175  | 200  | 225  | 250  | 300  | 350  | 400  | 450  | 500  | 625       | 750  | 875           | 1000 | 1125         | 1250 | 1500       | 1750     | 2000 |      |      |      |      |      |      |      |  |  |  |  |
| 35   | 3        | 9    | 14   | 29   | 43       | 57   | 71  | 86   | 100  | 114  | 129  | 143  | 171      | 200  | 229  | 257  | 286  | 343  | 400  | 457  | 514  | 571  | 714       | 857  | 1000          | 1143 | 1286         | 1429 | 1714       | 2000     |      |      |      |      |      |      |      |      |  |  |  |  |
| 30   | 3        | 10   | 17   | 33   | 50       | 67   | 83  | 100  | 117  | 133  | 150  | 167  | 200      | 233  | 267  | 300  | 333  | 400  | 467  | 533  | 600  | 667  | 833       | 1000 | 1167          | 1333 | 1500         | 1667 | 2000       | UNLIKELY |      |      |      |      |      |      |      |      |  |  |  |  |
| 25   | 4        | 12   | 20   | 40   | 60       | 80   | 100 | 120  | 140  | 160  | 180  | 200  | 240      | 280  | 320  | 360  | 400  | 480  | 560  | 640  | 720  | 800  | 1000      | 1200 | 1400          | 1600 | 1800         | 2000 | TO PRESENT |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 20   | 5        | 15   | 25   | 50   | 75       | 100  | 125 | 150  | 175  | 200  | 225  | 250  | 300      | 350  | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1250      | 1500 | 1750          | 2000 | ACUTE HAZARD |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 15   | 7        | 20   | 33   | 67   | 100      | 133  | 167 | 200  | 233  | 267  | 300  | 333  | 400      | 467  | 533  | 600  | 667  | 800  | 933  | 1067 | 1200 | 1333 | 1667      | 2000 | IN NORMAL USE |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 10   | 10       | 30   | 50   | 100  | 150      | 200  | 250 | 300  | 350  | 400  | 450  | 500  | 600      | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 5    | 20       | 60   | 100  | 200  | 300      | 400  | 500 | 600  | 700  | 800  | 900  | 1000 | 1200     | 1400 | 1600 | 1800 | 2000 |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 3    | 33       | 100  | 167  | 333  | 500      | 667  | 833 | 1000 | 1167 | 1333 | 1500 | 1667 | 2000     |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 1    | 100      | 300  | 500  | 1000 | 1500     | 2000 |     |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 0.5  | 200      | 600  | 1000 | 2000 |          |      |     |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 0.3  | 333      | 1000 | 1667 |      |          |      |     |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 0.1  | 1000     |      |      |      |          |      |     |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |
| 0.05 | 2000     |      |      |      |          |      |     |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |               |      |              |      |            |          |      |      |      |      |      |      |      |      |  |  |  |  |



Table C. LD<sub>50</sub> values and classification of formulations when the route is **ORAL** and the formulation **LIQUID**

First row = Oral LD<sub>50</sub> of the active ingredient

First column = Percent concentration of the active ingredient in the formulation

|      | Class Ia |      |      |      |      | Class Ib |      |      |      |      | Class II |      |      |      |      |      |      |      |      |      | Class III |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|----------|------|------|------|------|----------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 1        | 5    | 10   | 15   | 20   | 30       | 40   | 50   | 60   | 70   | 80       | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250  | 300  | 350       | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2500 | 3000 |
| 100  | 1        | 5    | 10   | 15   | 20   | 30       | 40   | 50   | 60   | 70   | 80       | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250  | 300  | 350       | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2500 | 3000 |
| 95   | 1        | 5    | 11   | 16   | 21   | 32       | 42   | 53   | 63   | 74   | 84       | 95   | 105  | 126  | 147  | 168  | 189  | 211  | 263  | 316  | 368       | 421  | 474  | 526  | 632  | 737  | 842  | 947  | 1053 | 1263 | 1474 | 1684 | 1895 | 2105 | 2632 |      |
| 90   | 1        | 6    | 11   | 17   | 22   | 33       | 44   | 56   | 67   | 78   | 89       | 100  | 111  | 133  | 156  | 178  | 200  | 222  | 278  | 333  | 389       | 444  | 500  | 556  | 667  | 778  | 889  | 1000 | 1111 | 1333 | 1556 | 1778 | 2000 | 2222 | 2778 |      |
| 85   | 1        | 6    | 12   | 18   | 24   | 35       | 47   | 59   | 71   | 82   | 94       | 106  | 118  | 141  | 165  | 188  | 212  | 235  | 294  | 353  | 412       | 471  | 529  | 588  | 706  | 824  | 941  | 1059 | 1176 | 1412 | 1647 | 1882 | 2118 | 2353 | 2941 |      |
| 80   | 1        | 6    | 13   | 19   | 25   | 38       | 50   | 63   | 75   | 88   | 100      | 113  | 125  | 150  | 175  | 200  | 225  | 250  | 313  | 375  | 438       | 500  | 563  | 625  | 750  | 875  | 1000 | 1125 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 |      |      |
| 75   | 1        | 7    | 13   | 20   | 27   | 40       | 53   | 67   | 80   | 93   | 107      | 120  | 133  | 160  | 187  | 213  | 240  | 267  | 333  | 400  | 467       | 533  | 600  | 667  | 800  | 933  | 1067 | 1200 | 1333 | 1600 | 1867 | 2133 | 2400 | 2667 |      |      |
| 70   | 1        | 7    | 14   | 21   | 29   | 43       | 57   | 71   | 86   | 100  | 114      | 129  | 143  | 171  | 200  | 229  | 257  | 286  | 357  | 429  | 500       | 571  | 643  | 714  | 857  | 1000 | 1143 | 1286 | 1429 | 1714 | 2000 | 2286 | 2571 | 2857 |      |      |
| 65   | 2        | 8    | 15   | 23   | 31   | 46       | 62   | 77   | 92   | 108  | 123      | 138  | 154  | 185  | 215  | 246  | 277  | 308  | 385  | 462  | 538       | 615  | 692  | 769  | 923  | 1077 | 1231 | 1385 | 1538 | 1846 | 2154 | 2462 | 2769 |      |      |      |
| 60   | 2        | 8    | 17   | 25   | 33   | 50       | 67   | 83   | 100  | 117  | 133      | 150  | 167  | 200  | 233  | 267  | 300  | 333  | 417  | 500  | 583       | 667  | 750  | 833  | 1000 | 1167 | 1333 | 1500 | 1667 | 2000 | 2333 | 2667 | 3000 |      |      |      |
| 55   | 2        | 9    | 18   | 27   | 36   | 55       | 73   | 91   | 109  | 127  | 145      | 164  | 182  | 218  | 255  | 291  | 327  | 364  | 455  | 545  | 636       | 727  | 818  | 909  | 1091 | 1273 | 1455 | 1636 | 1818 | 2182 | 2545 | 2909 |      |      |      |      |
| 50   | 2        | 10   | 20   | 30   | 40   | 60       | 80   | 100  | 120  | 140  | 160      | 180  | 200  | 240  | 280  | 320  | 360  | 400  | 500  | 600  | 700       | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2400 | 2800 |      |      |      |      |      |
| 45   | 2        | 11   | 22   | 33   | 44   | 67       | 89   | 111  | 133  | 156  | 178      | 200  | 222  | 267  | 311  | 356  | 400  | 444  | 556  | 667  | 778       | 889  | 1000 | 1111 | 1333 | 1556 | 1778 | 2000 | 2222 | 2667 |      |      |      |      |      |      |
| 40   | 3        | 13   | 25   | 38   | 50   | 75       | 100  | 125  | 150  | 175  | 200      | 225  | 250  | 300  | 350  | 400  | 450  | 500  | 625  | 750  | 875       | 1000 | 1125 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 3000 |      |      |      |      |      |      |
| 35   | 3        | 14   | 29   | 43   | 57   | 86       | 114  | 143  | 171  | 200  | 229      | 257  | 286  | 343  | 400  | 457  | 514  | 571  | 714  | 857  | 1000      | 1143 | 1286 | 1429 | 1714 | 2000 | 2286 | 2571 | 2857 |      |      |      |      |      |      |      |
| 30   | 3        | 17   | 33   | 50   | 67   | 100      | 133  | 167  | 200  | 233  | 267      | 300  | 333  | 400  | 467  | 533  | 600  | 667  | 833  | 1000 | 1167      | 1333 | 1500 | 1667 | 2000 | 2333 | 2667 | 3000 |      |      |      |      |      |      |      |      |
| 25   | 4        | 20   | 40   | 60   | 80   | 120      | 160  | 200  | 240  | 280  | 320      | 360  | 400  | 480  | 560  | 640  | 720  | 800  | 1000 | 1200 | 1400      | 1600 | 1800 | 2000 | 2400 | 2800 |      |      |      |      |      |      |      |      |      |      |
| 20   | 5        | 25   | 50   | 75   | 100  | 150      | 200  | 250  | 300  | 350  | 400      | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1250 | 1500 | 1750      | 2000 | 2250 | 2500 | 3000 |      |      |      |      |      |      |      |      |      |      |      |
| 15   | 7        | 33   | 67   | 100  | 133  | 200      | 267  | 333  | 400  | 467  | 533      | 600  | 667  | 800  | 933  | 1067 | 1200 | 1333 | 1667 | 2000 | 2333      | 2667 | 3000 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 12   | 8        | 42   | 83   | 125  | 167  | 250      | 333  | 417  | 500  | 583  | 667      | 750  | 833  | 1000 | 1167 | 1333 | 1500 | 1667 | 2083 | 2500 | 2917      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 10   | 10       | 50   | 100  | 150  | 200  | 300      | 400  | 500  | 600  | 700  | 800      | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2500 | 3000 |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 8    | 13       | 63   | 125  | 188  | 250  | 375      | 500  | 625  | 750  | 875  | 1000     | 1125 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6    | 17       | 83   | 167  | 250  | 333  | 500      | 667  | 833  | 1000 | 1167 | 1333     | 1500 | 1667 | 2000 | 2333 | 2667 | 3000 |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5    | 20       | 100  | 200  | 300  | 400  | 600      | 800  | 1000 | 1200 | 1400 | 1600     | 1800 | 2000 | 2400 | 2800 | 3200 |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 4    | 25       | 125  | 250  | 375  | 500  | 750      | 1000 | 1250 | 1500 | 1750 | 2000     | 2250 | 2500 | 3000 |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 2    | 50       | 250  | 500  | 750  | 1000 | 1500     | 2000 | 2500 | 3000 |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1.5  | 67       | 333  | 667  | 1000 | 1333 | 2000     | 2667 |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1    | 100      | 500  | 1000 | 1500 | 2000 | 3000     |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0.5  | 200      | 1000 | 2000 | 3000 |      |          |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0.3  | 333      | 1667 | 3333 |      |      |          |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0.1  | 1000     |      |      |      |      |          |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0.05 | 2000     |      |      |      |      |          |      |      |      |      |          |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

UNLIKELY

TO PRESENT

ACUTE HAZARD

IN NORMAL USE

Table D. LD<sub>50</sub> values and classification of formulations when the route is **DERMAL** and the formulation **LIQUID**

First row = Oral LD<sub>50</sub> of the active ingredient

First column = Percent concentration of the active ingredient in the formulation

|      | Class Ia |      |      |      |      |      |      | Class Ib |      |      |      |      |      |      |      |      |      |      |      |      | Class II |      |      |      |      |      |      |      |      |      |      |      | Class III |      |      |      |      |      |      |      |
|------|----------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|
|      | 1        | 5    | 10   | 15   | 20   | 30   | 40   | 50       | 60   | 70   | 80   | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250  | 300  | 350      | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800      | 2000 | 2500 | 3000 | 3500 | 4000 | 5000 | 6000 |
| 100  | 1        | 5    | 10   | 15   | 20   | 30   | 40   | 50       | 60   | 70   | 80   | 90   | 100  | 120  | 140  | 160  | 180  | 200  | 250  | 300  | 350      | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800      | 2000 | 2500 | 3000 | 3500 | 4000 | 5000 | 6000 |
| 95   | 1        | 5    | 11   | 16   | 21   | 32   | 42   | 53       | 63   | 74   | 84   | 95   | 105  | 126  | 147  | 168  | 189  | 211  | 263  | 316  | 368      | 421  | 474  | 526  | 632  | 737  | 842  | 947  | 1053 | 1263 | 1474 | 1684 | 1895      | 2105 | 2632 | 3158 | 3684 | 4211 | 5263 |      |
| 90   | 1        | 6    | 11   | 17   | 22   | 33   | 44   | 56       | 67   | 78   | 89   | 100  | 111  | 133  | 156  | 178  | 200  | 222  | 278  | 333  | 389      | 444  | 500  | 556  | 667  | 778  | 889  | 1000 | 1111 | 1333 | 1556 | 1778 | 2000      | 2222 | 2778 | 3333 | 3889 | 4444 | 5556 |      |
| 85   | 1        | 6    | 12   | 18   | 24   | 35   | 47   | 59       | 71   | 82   | 94   | 106  | 118  | 141  | 165  | 188  | 212  | 235  | 294  | 353  | 412      | 471  | 529  | 588  | 706  | 824  | 941  | 1059 | 1176 | 1412 | 1647 | 1882 | 2118      | 2353 | 2941 | 3529 | 4118 | 4706 | 5882 |      |
| 80   | 1        | 6    | 13   | 19   | 25   | 38   | 50   | 63       | 75   | 88   | 100  | 113  | 125  | 150  | 175  | 200  | 225  | 250  | 313  | 375  | 438      | 500  | 563  | 625  | 750  | 875  | 1000 | 1125 | 1250 | 1500 | 1750 | 2000 | 2250      | 2500 | 3125 | 3750 | 4375 | 5000 |      |      |
| 75   | 1        | 7    | 13   | 20   | 27   | 40   | 53   | 67       | 80   | 93   | 107  | 120  | 133  | 160  | 187  | 213  | 240  | 267  | 333  | 400  | 467      | 533  | 600  | 667  | 800  | 933  | 1067 | 1200 | 1333 | 1600 | 1867 | 2133 | 2400      | 2667 | 3333 | 4000 | 4667 | 5333 |      |      |
| 70   | 1        | 7    | 14   | 21   | 29   | 43   | 57   | 71       | 86   | 100  | 114  | 129  | 143  | 171  | 200  | 229  | 257  | 286  | 357  | 429  | 500      | 571  | 643  | 714  | 857  | 1000 | 1143 | 1286 | 1429 | 1714 | 2000 | 2286 | 2571      | 2857 | 3571 | 4286 | 5000 | 5714 |      |      |
| 65   | 2        | 8    | 15   | 23   | 31   | 46   | 62   | 77       | 92   | 108  | 123  | 138  | 154  | 185  | 215  | 246  | 277  | 308  | 385  | 462  | 538      | 615  | 692  | 769  | 923  | 1077 | 1231 | 1385 | 1538 | 1846 | 2154 | 2462 | 2769      | 3077 | 3846 | 4615 | 5385 |      |      |      |
| 60   | 2        | 8    | 17   | 25   | 33   | 50   | 67   | 83       | 100  | 117  | 133  | 150  | 167  | 200  | 233  | 267  | 300  | 333  | 417  | 500  | 583      | 667  | 750  | 833  | 1000 | 1167 | 1333 | 1500 | 1667 | 2000 | 2333 | 2667 | 3000      | 3333 | 4167 | 5000 | 5833 |      |      |      |
| 55   | 2        | 9    | 18   | 27   | 36   | 55   | 73   | 91       | 109  | 127  | 145  | 164  | 182  | 218  | 255  | 291  | 327  | 364  | 455  | 545  | 636      | 727  | 818  | 909  | 1091 | 1273 | 1455 | 1636 | 1818 | 2182 | 2545 | 2909 | 3273      | 3636 | 4545 | 5455 |      |      |      |      |
| 50   | 2        | 10   | 20   | 30   | 40   | 60   | 80   | 100      | 120  | 140  | 160  | 180  | 200  | 240  | 280  | 320  | 360  | 400  | 500  | 600  | 700      | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2400 | 2800 | 3200 | 3600      | 4000 | 5000 | 6000 |      |      |      |      |
| 45   | 2        | 11   | 22   | 33   | 44   | 67   | 89   | 111      | 133  | 156  | 178  | 200  | 222  | 267  | 311  | 356  | 400  | 444  | 556  | 667  | 778      | 889  | 1000 | 1111 | 1333 | 1556 | 1778 | 2000 | 2222 | 2667 | 3111 | 3556 | 4000      | 4444 | 5556 |      |      |      |      |      |
| 40   | 3        | 13   | 25   | 38   | 50   | 75   | 100  | 125      | 150  | 175  | 200  | 225  | 250  | 300  | 350  | 400  | 450  | 500  | 625  | 750  | 875      | 1000 | 1125 | 1250 | 1500 | 1750 | 2000 | 2250 | 2500 | 3000 | 3500 | 4000 | 4500      | 5000 |      |      |      |      |      |      |
| 35   | 3        | 14   | 29   | 43   | 57   | 86   | 114  | 143      | 171  | 200  | 229  | 257  | 286  | 343  | 400  | 457  | 514  | 571  | 714  | 857  | 1000     | 1143 | 1286 | 1429 | 1714 | 2000 | 2286 | 2571 | 2857 | 3429 | 4000 | 4571 | 5143      | 5714 |      |      |      |      |      |      |
| 30   | 3        | 17   | 33   | 50   | 67   | 100  | 133  | 167      | 200  | 233  | 267  | 300  | 333  | 400  | 467  | 533  | 600  | 667  | 833  | 1000 | 1167     | 1333 | 1500 | 1667 | 2000 | 2333 | 2667 | 3000 | 3333 | 4000 | 4667 | 5333 | 6000      |      |      |      |      |      |      |      |
| 25   | 4        | 20   | 40   | 60   | 80   | 120  | 160  | 200      | 240  | 280  | 320  | 360  | 400  | 480  | 560  | 640  | 720  | 800  | 1000 | 1200 | 1400     | 1600 | 1800 | 2000 | 2400 | 2800 | 3200 | 3600 | 4000 | 4800 | 5600 |      |           |      |      |      |      |      |      |      |
| 20   | 5        | 25   | 50   | 75   | 100  | 150  | 200  | 250      | 300  | 350  | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1250 | 1500 | 1750     | 2000 | 2250 | 2500 | 3000 | 3500 | 4000 | 4500 | 5000 | 6000 |      |      |           |      |      |      |      |      |      |      |
| 15   | 7        | 33   | 67   | 100  | 133  | 200  | 267  | 333      | 400  | 467  | 533  | 600  | 667  | 800  | 933  | 1067 | 1200 | 1333 | 1667 | 2000 | 2333     | 2667 | 3000 | 3333 | 4000 | 4667 | 5333 | 6000 |      |      |      |      |           |      |      |      |      |      |      |      |
| 10   | 10       | 50   | 100  | 150  | 200  | 300  | 400  | 500      | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 | 2000 | 2500 | 3000 | 3500     | 4000 | 4500 | 5000 | 6000 |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 5    | 20       | 100  | 200  | 300  | 400  | 600  | 800  | 1000     | 1200 | 1400 | 1600 | 1800 | 2000 | 2400 | 2800 | 3200 | 3600 | 4000 | 5000 | 6000 |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 3    | 33       | 167  | 333  | 500  | 667  | 1000 | 1333 | 1667     | 2000 | 2333 | 2667 | 3000 | 3333 | 4000 | 4667 | 5333 | 6000 |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 2    | 50       | 250  | 500  | 750  | 1000 | 1500 | 2000 | 2500     | 3000 | 3500 | 4000 | 4500 | 5000 | 6000 |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 1    | 100      | 500  | 1000 | 1500 | 2000 | 3000 | 4000 | 5000     | 6000 |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.5  | 200      | 1000 | 2000 | 3000 | 4000 | 6000 |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.4  | 250      | 1250 | 2500 | 3750 | 5000 |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.3  | 333      | 1667 | 3333 | 5000 |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.25 | 400      | 2000 | 4000 |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.15 | 667      | 3333 |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.1  | 1000     | 5000 |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.05 | 2000     |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.03 | 3333     |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |
| 0.02 | 5000     |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      |      |      |      |      |      |      |      |           |      |      |      |      |      |      |      |

UNLIKELY

TO PRESENT

ACUTE HAZARD

IN NORMAL USE

## Pesticide active ingredients, which occur in Tables 1-8, in CAS no order

For each active ingredient, the classification (Ia, Ib, II, III, or U (unlikely to pose an acute hazard in normal use, O (obsolete), FM (fumigant), and page number(s) are given.

| CAS no  | Class | Page   | CAS no   | Class | Page   | CAS no   | Class | Page   |
|---------|-------|--------|----------|-------|--------|----------|-------|--------|
| 50-00-0 | FM    | 40     | 86-87-3  | U     | 34     | 122-42-9 | U     | 35     |
| 50-29-3 | II    | 22, 39 | 86-88-4  | O     | 37     | 122-88-3 | III   | 26     |
| 50-31-7 | III   | 29     | 87-17-2  | O     | 38     | 123-33-1 | U     | 34     |
| 50-65-7 | U     | 34     | 87-86-5  | Ib    | 19, 39 | 123-88-6 | O     | 38, 39 |
| 51-03-6 | U     | 35     | 88-85-7  | O     | 37, 39 | 124-58-3 | III   | 28     |
| 51-14-9 | O     | 38     | 90-43-7  | U     | 35     | 125-67-9 | II    | 22     |
| 52-51-7 | II    | 21     | 91-20-3  | O     | 38     | 126-07-8 | O     | 38     |
| 52-68-6 | II    | 24     | 92-52-4  | U     | 31     | 126-22-7 | O     | 37     |
| 52-85-7 | Ib    | 18     | 93-71-0  | O     | 37     | 126-75-0 | O     | 37     |
| 54-11-5 | Ib    | 19     | 93-72-1  | O     | 38     | 131-11-3 | U     | 32     |
| 55-38-9 | II    | 22     | 93-75-4  | O     | 38     | 131-89-5 | O     | 37     |
| 56-35-9 | O     | 37     | 93-76-5  | O     | 38, 39 | 132-66-1 | U     | 34     |
| 56-38-2 | Ia    | 16, 39 | 94-74-6  | III   | 28     | 133-06-2 | U     | 31     |
| 56-72-4 | Ib    | 18     | 94-75-7  | II    | 22     | 133-07-3 | U     | 33     |
| 57-24-9 | Ib    | 19     | 94-81-5  | III   | 28     | 133-90-4 | O     | 37     |
| 57-74-9 | II    | 21, 39 | 94-82-6  | III   | 26     | 134-31-6 | O     | 38     |
| 58-89-9 | II    | 23, 39 | 94-96-2  | O     | 37     | 134-62-3 | III   | 27     |
| 60-51-5 | II    | 22     | 95-06-7  | O     | 38     | 136-25-4 | O     | 37     |
| 60-57-1 | O     | 37, 39 | 96-12-8  | O     | 37     | 137-26-8 | III   | 29, 39 |
| 61-82-5 | U     | 31     | 96-24-2  | Ib    | 18     | 137-30-4 | III   | 29     |
| 62-38-4 | Ia    | 16, 39 | 97-17-6  | O     | 37     | 137-42-8 | II    | 23     |
| 62-73-7 | Ib    | 18     | 97-23-4  | III   | 26     | 139-40-2 | U     | 35     |
| 62-74-8 | Ia    | 16     | 99-30-9  | U     | 32     | 140-41-0 | O     | 38     |
| 63-25-2 | II    | 21     | 101-05-3 | O     | 37     | 140-56-7 | O     | 38     |
| 66-81-9 | O     | 37     | 101-21-3 | U     | 32     | 140-57-8 | O     | 37     |
| 72-20-8 | O     | 37     | 101-27-9 | O     | 37     | 141-03-7 | O     | 37     |
| 72-43-5 | U     | 34     | 101-42-8 | O     | 38     | 141-66-2 | Ib    | 18     |
| 72-54-8 | O     | 38     | 103-17-3 | O     | 37     | 142-59-6 | II    | 23     |
| 74-83-9 | FM    | 40     | 106-46-7 | III   | 26     | 143-33-9 | Ib    | 19     |
| 74-90-8 | FM    | 40     | 106-93-4 | FM    | 39, 40 | 143-50-0 | O     | 37     |
| 75-15-0 | O     | 37     | 107-02-8 | Ib    | 18     | 148-79-8 | U     | 36     |
| 75-21-8 | FM    | 39, 40 | 107-06-2 | FM    | 39, 40 | 149-26-8 | O     | 37     |
| 75-60-5 | III   | 27     | 107-13-1 | O     | 37     | 150-68-5 | O     | 38     |
| 75-99-0 | U     | 32     | 107-18-6 | Ib    | 18     | 152-16-9 | O     | 38     |
| 76-03-9 | II    | 24     | 107-49-3 | O     | 38     | 156-62-7 | O     | 37     |
| 76-06-2 | FM    | 40     | 108-25-8 | O     | 38     | 297-78-9 | O     | 38     |
| 76-44-8 | O     | 38, 39 | 108-62-3 | II    | 23     | 297-97-2 | O     | 38     |
| 76-87-9 | II    | 22     | 112-12-9 | III   | 29     | 297-99-4 | Ia    | 16, 39 |
| 77-06-5 | U     | 33     | 113-48-4 | III   | 28     | 298-00-0 | Ia    | 16, 39 |
| 78-34-2 | O     | 37     | 114-26-1 | II    | 24     | 298-02-2 | Ia    | 16     |
| 78-57-9 | O     | 38     | 115-26-4 | O     | 37     | 298-03-3 | O     | 37     |
| 78-87-5 | O     | 37     | 115-29-7 | II    | 22     | 298-04-4 | Ia    | 16     |
| 79-11-8 | III   | 26     | 115-31-1 | O     | 38     | 299-84-3 | O     | 38     |
| 80-06-8 | O     | 37     | 115-32-2 | III   | 27     | 299-86-5 | O     | 37     |
| 80-33-1 | O     | 37     | 115-78-6 | II    | 21     | 300-76-5 | II    | 23     |
| 80-38-6 | O     | 38     | 115-90-2 | O     | 38     | 301-12-2 | Ib    | 19     |
| 81-81-2 | Ib    | 19     | 116-01-8 | O     | 37     | 309-00-2 | O     | 37, 39 |
| 81-82-3 | O     | 37     | 116-06-3 | Ia    | 16     | 314-40-9 | U     | 31     |
| 81-84-5 | O     | 38     | 116-16-5 | O     | 38     | 314-42-1 | O     | 38     |
| 82-66-6 | Ia    | 16     | 116-29-0 | U     | 36     | 315-18-4 | O     | 38     |
| 82-68-8 | U     | 35     | 117-18-0 | U     | 35     | 327-98-0 | O     | 38     |
| 83-26-1 | O     | 38     | 118-74-1 | Ia    | 16, 39 | 330-54-1 | U     | 32     |
| 83-59-0 | O     | 38     | 118-75-2 | O     | 37     | 330-55-2 | U     | 34     |
| 83-79-4 | II    | 24     | 119-12-0 | III   | 29     | 333-41-5 | II    | 22     |
| 84-65-1 | U     | 31     | 120-23-0 | III   | 28     | 371-86-8 | O     | 38     |
| 84-74-2 | O     | 37     | 120-62-7 | O     | 38     | 465-73-6 | O     | 38     |
| 85-34-7 | O     | 37     | 121-75-5 | III   | 28     | 467-69-6 | U     | 33     |
| 86-50-0 | Ib    | 18     | 122-14-5 | II    | 22     | 470-90-6 | Ib    | 18     |
| 86-86-2 | U     | 34     | 122-34-9 | U     | 35     | 485-31-4 | O     | 37, 39 |

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For each active ingredient, the classification (Ia, Ib, II, III, or U (unlikely to pose an acute hazard in normal use, O (obsolete), FM (fumigant), and page number(s) are given.

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| 495-73-8  | O     | 37     | 1314-84-7 | Ib    | 19     | 2303-16-4 | O     | 37     |
| 502-39-6  | O     | 38, 39 | 1317-39-1 | II    | 21     | 2303-17-5 | III   | 29     |
| 502-55-6  | O     | 38     | 1327-53-3 | O     | 37     | 2307-49-5 | O     | 38     |
| 507-60-8  | O     | 38     | 1332-40-7 | III   | 26     | 2307-68-8 | U     | 35     |
| 510-15-6  | O     | 37, 39 | 1420-06-3 | O     | 38     | 2310-17-0 | II    | 23     |
| 513-77-9  | O     | 37     | 1420-07-1 | Ib    | 18     | 2312-35-8 | III   | 29     |
| 532-34-3  | O     | 37     | 1468-37-7 | O     | 37     | 2312-76-7 | Ib    | 18, 39 |
| 533-74-4  | III   | 26     | 1563-66-2 | Ib    | 18, 39 | 2385-85-5 | O     | 38     |
| 534-52-1  | Ib    | 18, 39 | 1582-09-8 | U     | 36     | 2425-06-1 | Ia    | 16, 39 |
| 535-89-7  | O     | 37     | 1593-77-7 | U     | 32     | 2425-10-7 | II    | 24     |
| 542-75-6  | FM    | 40     | 1596-84-5 | U     | 32     | 2439-01-2 | III   | 26     |
| 555-37-3  | U     | 34     | 1610-17-9 | O     | 37     | 2439-10-3 | III   | 27     |
| 556-22-9  | O     | 38     | 1610-18-0 | U     | 35     | 2439-99-8 | O     | 38     |
| 556-61-6  | II    | 23     | 1646-88-4 | O     | 37     | 2487-01-6 | O     | 38     |
| 563-12-2  | II    | 22     | 1689-83-4 | II    | 23     | 2497-07-6 | O     | 38     |
| 584-79-2  | III   | 26     | 1689-84-5 | II    | 21     | 2514-53-6 | O     | 37     |
| 584-79-2  | II    | 21     | 1698-60-8 | U     | 32     | 2536-31-4 | O     | 37     |
| 590-28-3  | O     | 38     | 1715-40-8 | O     | 37     | 2540-82-1 | O     | 38     |
| 592-01-8  | Ia    | 16     | 1746-81-2 | U     | 34     | 2550-75-6 | O     | 37     |
| 608-73-1  | II    | 23, 39 | 1754-58-1 | O     | 37     | 2587-90-8 | O     | 37     |
| 640-15-3  | Ib    | 19     | 1836-75-5 | O     | 38     | 2593-15-9 | III   | 27     |
| 640-19-7  | Ib    | 18, 39 | 1836-77-7 | O     | 37     | 2595-54-2 | Ib    | 19     |
| 644-64-4  | O     | 37     | 1861-32-1 | U     | 32     | 2597-03-7 | II    | 23     |
| 650-51-1  | U     | 35     | 1861-40-1 | U     | 31     | 2631-37-0 | O     | 38     |
| 671-04-5  | O     | 37     | 1897-45-6 | U     | 32     | 2631-40-5 | II    | 23     |
| 682-80-4  | O     | 37     | 1910-42-5 | II    | 23     | 2636-26-2 | II    | 21     |
| 709-98-8  | III   | 28     | 1912-24-9 | U     | 31     | 2642-71-9 | Ib    | 18     |
| 731-27-1  | U     | 36     | 1912-25-0 | O     | 38     | 2655-14-3 | III   | 29     |
| 732-11-6  | II    | 23     | 1912-26-1 | U     | 36     | 2655-19-8 | O     | 37     |
| 741-58-2  | II    | 21     | 1918-00-9 | O     | 37     | 2669-32-1 | O     | 38     |
| 756-09-2  | U     | 33     | 1918-02-1 | U     | 35     | 2674-91-1 | O     | 37     |
| 759-94-4  | II    | 22     | 1918-11-2 | O     | 38     | 2675-77-6 | O     | 37     |
| 786-19-6  | O     | 37     | 1918-13-4 | O     | 37     | 2693-61-0 | O     | 38     |
| 834-12-8  | III   | 26     | 1918-16-7 | III   | 28     | 2699-79-8 | FM    | 40     |
| 841-06-5  | O     | 38     | 1918-18-9 | O     | 38     | 2759-71-9 | O     | 37     |
| 886-50-0  | U     | 35     | 1929-77-7 | O     | 38     | 2764-72-9 | II    | 22     |
| 900-95-8  | II    | 22     | 1929-82-4 | III   | 28     | 2778-04-3 | O     | 37     |
| 919-76-6  | O     | 37     | 1929-88-0 | O     | 37     | 2797-51-5 | III   | 29     |
| 919-86-8  | Ib    | 18     | 1967-16-4 | O     | 37     | 2813-95-8 | O     | 37     |
| 944-22-9  | O     | 38     | 1982-47-4 | O     | 37     | 2921-88-2 | II    | 21     |
| 947-02-4  | O     | 38     | 1982-49-6 | U     | 35     | 2980-64-5 | Ib    | 18, 39 |
| 950-10-7  | O     | 38     | 2008-41-5 | U     | 31     | 2941-55-1 | O     | 37     |
| 950-37-8  | Ib    | 19     | 2032-59-9 | O     | 37     | 3060-89-7 | U     | 34     |
| 957-51-7  | III   | 27     | 2032-65-7 | Ib    | 19     | 3134-12-1 | O     | 38     |
| 973-21-7  | II    | 22     | 2079-00-7 | Ib    | 18     | 3337-71-1 | U     | 31     |
| 991-42-4  | O     | 38     | 2104-64-5 | Ia    | 16     | 3347-22-6 | III   | 27     |
| 999-81-5  | III   | 26     | 2104-96-3 | O     | 37     | 3383-96-8 | U     | 35     |
| 1014-69-3 | O     | 37     | 2163-69-1 | O     | 37     | 3495-42-9 | O     | 37     |
| 1014-70-6 | III   | 29     | 2163-79-3 | O     | 38     | 3547-33-9 | U     | 33     |
| 1031-47-6 | O     | 38     | 2164-08-1 | II    | 23     | 3689-24-5 | Ia    | 16     |
| 1071-83-6 | U     | 33     | 2164-08-1 | U     | 34     | 3691-35-8 | Ia    | 16     |
| 1085-98-9 | U     | 32     | 2164-09-2 | O     | 37     | 3734-95-0 | O     | 37     |
| 1086-02-8 | O     | 38     | 2164-17-2 | U     | 33     | 3737-22-2 | U     | 32     |
| 1113-02-6 | Ib    | 19     | 2212-67-1 | II    | 23     | 3740-92-9 | U     | 33     |
| 1114-71-2 | II    | 23     | 2227-13-6 | O     | 38     | 3766-60-7 | O     | 37     |
| 1129-41-5 | II    | 23     | 2227-47-0 | O     | 37     | 3766-81-2 | II    | 22     |
| 1134-23-2 | III   | 26     | 2275-14-1 | O     | 38     | 3792-59-4 | O     | 37     |
| 1194-65-6 | U     | 32     | 2275-18-5 | O     | 38     | 3811-49-2 | O     | 37     |
| 1303-96-4 | U     | 31     | 2275-23-2 | Ib    | 19     | 3813-05-6 | U     | 31     |

**Pesticide active ingredients, which occur in Tables 1-8, in CAS no order, continued**

For each active ingredient, the classification (Ia, Ib, II, III, or U (unlikely to pose an acute hazard in normal use, O (obsolete), FM (fumigant), and page number(s) are given.

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| 3861-47-0 | II    | 23     | 8065-36-9  | O     | 37     | 17040-19-6 | O     | 37     |
| 3878-19-1 | II    | 22     | 9006-42-2  | U     | 34     | 17109-49-8 | Ib    | 18     |
| 4104-14-7 | O     | 38     | 10004-44-1 | U     | 33     | 17606-31-4 | III   | 26     |
| 4147-51-7 | O     | 37     | 10071-13-3 | U     | 34     | 17804-35-2 | U     | 31, 39 |
| 4151-50-2 | III   | 29     | 10112-91-1 | II    | 23, 39 | 18181-70-9 | O     | 38     |
| 4234-79-1 | O     | 38     | 10265-92-6 | Ib    | 19, 39 | 18181-80-1 | U     | 31     |
| 4301-50-2 | O     | 38     | 10311-84-9 | O     | 37     | 18467-77-1 | U     | 32     |
| 4482-55-7 | O     | 38     | 10380-28-6 | U     | 34     | 18691-97-9 | U     | 34     |
| 4489-31-0 | O     | 38     | 10453-86-8 | III   | 29     | 18854-04-8 | Ib    | 18     |
| 4636-83-3 | O     | 38     | 10537-47-0 | O     | 38     | 19044-88-3 | U     | 34     |
| 4658-28-0 | O     | 37     | 10552-74-6 | U     | 34     | 19408-46-9 | U     | 34     |
| 4726-14-1 | O     | 38     | 10605-21-7 | U     | 31     | 19622-08-3 | O     | 38     |
| 4824-78-6 | O     | 37     | 12002-03-8 | Ib    | 19     | 19666-30-9 | U     | 34     |
| 4849-32-5 | O     | 38     | 12057-74-8 | FM    | 40     | 19691-80-6 | O     | 37     |
| 5131-24-8 | O     | 37     | 12071-83-9 | U     | 35     | 19937-59-8 | U     | 34     |
| 5221-53-4 | U     | 32     | 12122-67-7 | U     | 36     | 20354-26-1 | O     | 38     |
| 5234-68-4 | U     | 31     | 12407-86-2 | O     | 38     | 20427-59-2 | III   | 26     |
| 5259-88-1 | U     | 34     | 12427-38-2 | U     | 34     | 20856-57-9 | O     | 37     |
| 5598-13-0 | U     | 32     | 12771-68-5 | U     | 31     | 20859-73-8 | FM    | 40     |
| 5707-69-7 | O     | 37     | 13067-93-1 | O     | 37     | 21087-64-9 | II    | 23     |
| 5787-96-2 | Ib    | 18, 39 | 13071-79-9 | Ia    | 16     | 21540-35-2 | O     | 38     |
| 5827-05-4 | O     | 38     | 13121-70-5 | III   | 26     | 21542-18-6 | O     | 38     |
| 5834-96-8 | O     | 37     | 13171-21-6 | Ia    | 16, 39 | 21548-32-3 | O     | 38     |
| 5836-10-2 | O     | 37     | 13181-17-4 | O     | 37     | 21609-90-5 | O     | 38     |
| 5836-29-3 | Ib    | 18     | 13194-48-4 | Ia    | 16     | 21725-46-2 | II    | 21     |
| 5902-51-2 | U     | 35     | 13356-08-6 | U     | 33     | 21908-53-2 | Ib    | 19, 39 |
| 5915-41-3 | U     | 35     | 13360-45-7 | O     | 37     | 21923-23-9 | O     | 37     |
| 6164-98-3 | O     | 37, 39 | 13457-18-6 | II    | 24     | 22224-92-6 | Ib    | 18     |
| 6392-46-7 | O     | 37     | 13516-27-3 | II    | 23     | 22248-79-9 | U     | 36     |
| 6616-80-4 | O     | 37     | 13577-71-4 | O     | 38     | 22259-30-9 | Ib    | 18     |
| 6923-22-4 | Ib    | 19, 39 | 13593-03-8 | II    | 24     | 22274-74-0 | O     | 37     |
| 6988-21-2 | O     | 37     | 13598-36-2 | U     | 35     | 22571-07-9 | O     | 38     |
| 7055-03-0 | O     | 38     | 13684-56-5 | U     | 32     | 22781-23-3 | II    | 21     |
| 7085-19-0 | III   | 28     | 13684-63-4 | U     | 35     | 22936-75-0 | III   | 27     |
| 7159-99-1 | O     | 38     | 13952-84-6 | II    | 21     | 23031-36-9 | II    | 24     |
| 7187-36-7 | O     | 38     | 14214-32-5 | O     | 37     | 23103-98-2 | II    | 24     |
| 7287-19-6 | U     | 35     | 14255-88-0 | O     | 38     | 23135-22-0 | Ib    | 19     |
| 7292-16-2 | O     | 38     | 14437-17-3 | O     | 37     | 23184-66-9 | U     | 31     |
| 7446-18-6 | Ib    | 19     | 14484-64-1 | U     | 33     | 23505-41-1 | O     | 38     |
| 7487-94-7 | Ia    | 16     | 14491-59-9 | O     | 37     | 23560-59-0 | Ib    | 18     |
| 7547-66-2 | III   | 26     | 14750-35-4 | U     | 31     | 23564-05-8 | U     | 36     |
| 7681-49-4 | O     | 38     | 14816-18-3 | II    | 23     | 23564-06-9 | O     | 38     |
| 7681-93-8 | III   | 28     | 14816-20-7 | O     | 37     | 23783-98-4 | Ia    | 16, 39 |
| 7696-12-0 | U     | 36     | 15096-52-3 | U     | 32     | 23947-60-6 | U     | 32     |
| 7700-17-6 | O     | 37     | 15263-53-3 | II    | 21     | 23950-58-5 | U     | 35     |
| 7704-34-9 | U     | 35     | 15299-99-7 | U     | 34     | 24017-47-8 | Ib    | 19     |
| 7758-98-7 | II    | 21     | 15302-91-7 | III   | 28     | 24151-93-7 | II    | 24     |
| 7773-06-0 | U     | 31     | 15310-01-7 | O     | 37     | 24201-58-9 | O     | 37     |
| 7775-09-9 | III   | 29     | 15457-05-3 | O     | 38     | 24353-58-0 | O     | 37     |
| 7778-44-1 | Ib    | 18     | 15545-48-9 | U     | 32     | 24579-73-5 | U     | 35     |
| 7784-40-9 | Ib    | 19     | 15845-66-2 | U     | 33     | 24691-76-7 | O     | 38     |
| 7784-46-5 | Ib    | 19     | 15879-93-3 | II    | 21     | 24691-80-3 | U     | 33     |
| 7803-51-2 | FM    | 40     | 15972-60-8 | III   | 26     | 24934-91-6 | Ia    | 16     |
| 8001-35-2 | O     | 37, 39 | 16118-49-3 | U     | 31     | 25057-89-0 | III   | 26     |
| 8003-05-2 | O     | 38, 39 | 16484-77-8 | III   | 28     | 25311-71-1 | O     | 38     |
| 8003-34-7 | II    | 24     | 16672-87-0 | U     | 32     | 25319-90-8 | III   | 28     |
| 8018-01-7 | U     | 34     | 16752-77-5 | Ib    | 19     | 25366-23-8 | O     | 38     |
| 8047-13-0 | O     | 38     | 16893-85-9 | O     | 38     | 25954-13-6 | U     | 33     |
| 8051-02-3 | O     | 38     | 17029-22-0 | O     | 38     | 26002-80-2 | U     | 35     |

**Pesticide active ingredients, which occur in Tables 1-8, in CAS no order, continued**

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| 26087-47-8 | III   | 28     | 35575-96-3 | III   | 26     | 55179-31-2 | U     | 31   |
| 26129-32-8 | O     | 37     | 36335-67-8 | II    | 21     | 55219-65-3 | III   | 29   |
| 26225-79-6 | U     | 33     | 36519-00-3 | O     | 38     | 55283-68-6 | U     | 32   |
| 26259-45-0 | O     | 38     | 36614-38-7 | O     | 38     | 55285-14-8 | II    | 21   |
| 26399-36-0 | O     | 38     | 36734-19-7 | U     | 34     | 55290-64-7 | III   | 27   |
| 26530-20-1 | III   | 28     | 36756-79-3 | U     | 36     | 55335-06-3 | III   | 29   |
| 26644-46-2 | U     | 36     | 37248-47-8 | U     | 36     | 55511-98-3 | O     | 37   |
| 26718-65-0 | Ia    | 16     | 37407-77-5 | O     | 37     | 55512-33-9 | III   | 29   |
| 26766-27-8 | O     | 38     | 37764-25-3 | III   | 26     | 55634-91-8 | U     | 31   |
| 27314-13-2 | U     | 34     | 37893-02-0 | O     | 38     | 55814-41-0 | U     | 34   |
| 27355-22-2 | U     | 35     | 37894-46-5 | O     | 37     | 55861-78-4 | III   | 28   |
| 27386-64-7 | O     | 38     | 37924-13-3 | O     | 38     | 56073-07-5 | Ia    | 16   |
| 27541-88-4 | O     | 38     | 38260-54-7 | O     | 37     | 56073-10-0 | Ia    | 16   |
| 27605-76-1 | U     | 35     | 38727-55-8 | O     | 37     | 56425-91-3 | III   | 27   |
| 28217-97-2 | O     | 37     | 39196-18-4 | Ib    | 19     | 57018-04-9 | U     | 36   |
| 28249-77-6 | II    | 24     | 39300-45-3 | III   | 27     | 57052-04-7 | O     | 38   |
| 28434-01-7 | U     | 31     | 39515-40-7 | II    | 22     | 57130-91-3 | O     | 38   |
| 28559-00-4 | O     | 37     | 39603-48-0 | O     | 37     | 57369-32-1 | II    | 24   |
| 28772-56-7 | Ia    | 16     | 40483-25-2 | III   | 26     | 57375-63-0 | O     | 38   |
| 28805-78-9 | O     | 38     | 40487-42-1 | III   | 28     | 57646-30-7 | III   | 27   |
| 29091-05-2 | U     | 32     | 40596-69-8 | U     | 34     | 57754-85-5 | U     | 32   |
| 29091-21-2 | U     | 35     | 41083-11-8 | II    | 21     | 57837-19-1 | III   | 28   |
| 29104-30-1 | O     | 37     | 41198-08-7 | II    | 24     | 57966-95-7 | III   | 26   |
| 29173-31-7 | O     | 38     | 41205-09-8 | U     | 33     | 58011-68-0 | U     | 35   |
| 29232-93-7 | III   | 28     | 41295-28-7 | O     | 38, 39 | 58138-08-2 | O     | 38   |
| 29672-19-3 | O     | 38     | 41394-05-2 | III   | 28     | 58667-63-3 | O     | 38   |
| 29973-13-5 | Ib    | 18     | 41483-43-6 | U     | 31     | 58810-48-3 | U     | 34   |
| 30043-49-3 | O     | 37     | 41814-78-2 | II    | 24     | 59669-26-0 | II    | 24   |
| 30560-19-1 | III   | 26     | 42509-80-8 | O     | 38     | 59756-60-4 | U     | 33   |
| 30979-48-7 | O     | 38     | 42576-02-3 | U     | 31     | 60168-88-9 | U     | 33   |
| 31218-83-4 | Ib    | 19     | 42588-37-4 | O     | 38     | 60207-31-0 | II    | 21   |
| 31251-03-3 | O     | 38     | 42609-52-9 | U     | 32     | 60207-90-1 | II    | 24   |
| 31848-11-0 | O     | 37     | 42609-73-4 | U     | 34     | 60207-93-4 | O     | 37   |
| 31895-22-4 | II    | 24     | 42874-03-3 | U     | 34     | 60568-05-0 | O     | 38   |
| 32407-99-1 | O     | 38, 39 | 43121-43-3 | III   | 29     | 61213-25-0 | U     | 33   |
| 32534-96-6 | O     | 37     | 43222-48-6 | II    | 22     | 61432-55-1 | III   | 27   |
| 32791-87-0 | U     | 32     | 50471-44-8 | U     | 36     | 62610-77-9 | II    | 23   |
| 32809-16-8 | U     | 35     | 50512-35-1 | III   | 28     | 62850-32-2 | III   | 27   |
| 32861-85-1 | O     | 37     | 50563-36-5 | III   | 27     | 62865-36-5 | U     | 32   |
| 33089-61-1 | III   | 26     | 50594-66-6 | III   | 26     | 62924-70-3 | U     | 33   |
| 33245-39-5 | III   | 27     | 51218-45-2 | III   | 28     | 63278-33-1 | O     | 37   |
| 33629-47-9 | III   | 26     | 51218-49-6 | U     | 35     | 63284-71-9 | III   | 28   |
| 33693-04-8 | II    | 24     | 51235-04-2 | III   | 27     | 63333-35-7 | Ia    | 16   |
| 33820-53-0 | O     | 38     | 51308-54-4 | O     | 37     | 63935-38-6 | U     | 32   |
| 33878-50-1 | O     | 37     | 51487-69-5 | O     | 37     | 64249-01-0 | II    | 21   |
| 34014-18-1 | III   | 29     | 51630-58-1 | II    | 22     | 64257-84-7 | II    | 22   |
| 34123-59-6 | III   | 28     | 51707-55-2 | U     | 36     | 64491-92-5 | O     | 38   |
| 34205-21-5 | U     | 32     | 52304-36-6 | U     | 33     | 64628-44-0 | U     | 36   |
| 34256-82-1 | III   | 26     | 52315-07-8 | II    | 21     | 64902-72-3 | U     | 32   |
| 34264-24-9 | O     | 38     | 52315-07-8 | Ib    | 19     | 65907-30-4 | Ib    | 18   |
| 34462-96-9 | O     | 38     | 52645-53-1 | II    | 23     | 65934-95-4 | O     | 38   |
| 34643-46-4 | II    | 24     | 52888-80-9 | II    | 24     | 66063-05-6 | U     | 34   |
| 34681-10-2 | Ib    | 18     | 52918-63-5 | II    | 22     | 66215-27-8 | U     | 32   |
| 34681-23-7 | Ib    | 18     | 53112-28-0 | U     | 35     | 66230-04-4 | II    | 22   |
| 35256-85-0 | O     | 37     | 53369-07-6 | III   | 27     | 66246-88-6 | U     | 34   |
| 35256-85-0 | U     | 35     | 53780-34-0 | III   | 28     | 66332-96-5 | U     | 33   |
| 35367-38-5 | U     | 32     | 54406-48-3 | III   | 27     | 66952-49-6 | II    | 23   |
| 35400-43-2 | O     | 38     | 54593-83-8 | Ia    | 16     | 67129-08-2 | U     | 34   |
| 35554-44-0 | II    | 23     | 54864-61-8 | O     | 38     | 67306-00-7 | II    | 22   |

**Pesticide active ingredients, which occur in Tables 1-8, in CAS no order, continued**

For each active ingredient, the classification (Ia, Ib, II, III, or U (unlikely to pose an acute hazard in normal use, O (obsolete), FM (fumigant), and page number(s) are given.

| CAS no     | Class | Page | CAS no      | Class | Page | CAS no      | Class | Page |
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| 67375-30-8 | II    | 22   | 82097-50-5  | U     | 36   | 107534-96-3 | III   | 29   |
| 67485-29-4 | III   | 28   | 82110-72-3  | O     | 38   | 108173-90-6 | II    | 23   |
| 67564-91-4 | U     | 33   | 82211-24-3  | U     | 34   | 110235-47-7 | U     | 34   |
| 67747-09-5 | III   | 28   | 82558-50-7  | U     | 34   | 110488-70-5 | U     | 32   |
| 68038-71-1 | U     | 31   | 82560-54-1  | II    | 21   | 111479-05-1 | U     | 35   |
| 68085-85-8 | II    | 21   | 82657-04-3  | II    | 21   | 111991-09-4 | U     | 34   |
| 68228-20-6 | O     | 38   | 83055-99-6  | U     | 31   | 111988-49-9 | II    | 24   |
| 68359-37-5 | II    | 21   | 83066-88-0  | III   | 27   | 112143-82-5 | II    | 24   |
| 68359-37-5 | II    | 21   | 83121-18-0  | U     | 35   | 112226-61-6 | U     | 33   |
| 68505-69-1 | U     | 31   | 83130-01-2  | II    | 21   | 112281-77-3 | II    | 24   |
| 69309-47-3 | O     | 38   | 83164-33-4  | U     | 32   | 112410-23-8 | U     | 35   |
| 69327-76-0 | U     | 31   | 83657-22-1  | III   | 29   | 112839-32-4 | O     | 38   |
| 69335-91-7 | O     | 38   | 83657-24-3  | III   | 27   | 113036-87-6 | U     | 35   |
| 69377-81-7 | U     | 33   | 83733-82-8  | O     | 38   | 114369-43-6 | U     | 33   |
| 69409-94-5 | O     | 38   | 84087-01-4  | U     | 35   | 116170-30-0 | O     | 38   |
| 69581-33-5 | O     | 37   | 84332-86-5  | U     | 32   | 116255-48-2 | II    | 21   |
| 69806-34-4 | II    | 23   | 84496-56-0  | U     | 32   | 118134-30-8 | II    | 24   |
| 70124-77-5 | Ib    | 18   | 85509-19-9  | III   | 27   | 118712-89-3 | U     | 36   |
| 70193-21-4 | O     | 38   | 85785-20-2  | III   | 27   | 119168-77-3 | III   | 29   |
| 71048-99-2 | II    | 21   | 86479-06-3  | U     | 33   | 119446-68-3 | III   | 27   |
| 71422-67-8 | U     | 32   | 86598-92-7  | U     | 34   | 119738-06-6 | II    | 24   |
| 71561-11-0 | III   | 29   | 87130-20-9  | U     | 32   | 120068-37-3 | II    | 22   |
| 71626-11-4 | U     | 31   | 87310-56-3  | O     | 37   | 120162-55-2 | U     | 31   |
| 72178-02-0 | III   | 27   | 87757-18-4  | O     | 38   | 120928-09-8 | II    | 22   |
| 73250-68-7 | U     | 34   | 87818-31-3  | U     | 32   | 121451-02-3 | U     | 34   |
| 73886-28-9 | O     | 38   | 87820-88-0  | III   | 29   | 122008-85-9 | U     | 32   |
| 74051-80-2 | III   | 29   | 88283-41-4  | III   | 29   | 122453-73-0 | II    | 21   |
| 74070-46-5 | U     | 31   | 88485-37-4  | II    | 22   | 122931-48-0 | U     | 35   |
| 74115-24-5 | U     | 32   | 88671-89-0  | III   | 28   | 123343-16-8 | U     | 35   |
| 74223-56-6 | U     | 35   | 89269-64-7  | III   | 27   | 124495-18-7 | U     | 35   |
| 74223-64-6 | U     | 34   | 90035-08-8  | Ia    | 16   | 125116-23-6 | III   | 28   |
| 74712-19-9 | U     | 31   | 90134-59-1  | U     | 33   | 125401-75-4 | U     | 31   |
| 74738-17-3 | U     | 33   | 90717-03-6  | U     | 35   | 126535-15-7 | U     | 36   |
| 74782-23-3 | U     | 34   | 94050-52-9  | U     | 33   | 126833-17-8 | U     | 33   |
| 75736-33-3 | O     | 37   | 94361-06-5  | III   | 26   | 130000-40-7 | U     | 36   |
| 76578-12-6 | III   | 29   | 94593-91-6  | U     | 32   | 131807-57-3 | U     | 33   |
| 76608-88-3 | O     | 38   | 95465-99-9  | Ib    | 18   | 131860-33-8 | U     | 31   |
| 76674-21-0 | III   | 27   | 95721-12-3  | O     | 38   | 131929-60-7 | U     | 35   |
| 76738-62-0 | III   | 28   | 95737-68-1  | U     | 35   | 131929-63-0 | U     | 35   |
| 77458-01-6 | II    | 24   | 96182-53-5  | Ia    | 16   | 131983-72-7 | U     | 36   |
| 77501-60-1 | III   | 27   | 96489-71-3  | III   | 29   | 136191-56-5 | U     | 35   |
| 77732-09-3 | III   | 28   | 97886-45-8  | U     | 32   | 136849-15-5 | U     | 32   |
| 78587-05-0 | U     | 33   | 98389-04-9  | U     | 35   | 138164-12-2 | III   | 26   |
| 79127-80-3 | U     | 33   | 98730-04-2  | U     | 31   | 138261-41-3 | II    | 23   |
| 79277-27-3 | U     | 36   | 98967-40-9  | U     | 33   | 139528-85-1 | U     | 34   |
| 79538-32-2 | Ib    | 19   | 99283-00-8  | U     | 32   | 140923-17-7 | U     | 34   |
| 79983-71-4 | U     | 33   | 99387-89-0  | III   | 29   | 142459-58-3 | III   | 27   |
| 80060-09-9 | U     | 32   | 101007-06-1 | U     | 31   | 144740-54-5 | U     | 33   |
| 80844-07-1 | U     | 33   | 101205-02-1 | U     | 32   | 145701-21-9 | U     | 32   |
| 81334-34-1 | U     | 33   | 101463-69-8 | U     | 33   | 145701-23-1 | U     | 33   |
| 81335-37-7 | U     | 33   | 102851-06-9 | U     | 33   | 149253-65-6 | U     | 33   |
| 81335-77-5 | U     | 34   | 103112-35-2 | U     | 33   | 161050-58-4 | U     | 34   |
| 81405-85-8 | U     | 33   | 104030-54-8 | U     | 31   | 168316-95-8 | U     | 35   |
| 81412-43-3 | II    | 24   | 104653-34-1 | Ia    | 16   | 181274-17-9 | U     | 33   |
| 81777-89-1 | II    | 21   | 106040-48-6 | U     | 36   | 219714-96-2 | U     | 35   |

## INDEX. CLASSIFICATION OF ACTIVE PESTICIDE INGREDIENTS

**Ia = Extremely hazardous; IB = Highly hazardous; II =Moderately hazardous; III = slightly hazardous; U = Unlikely to present acute hazard in normal use; FM =Fumigant, not classified; O = Obsolete as pesticide, not classified.**

| Common name  | Class | Page   | Common name                      | Class | Page   | Common name                                 | Class | Page   |
|--|-------|--------|----------------------------------|-------|--------|---|-------|--------|
| Acephate   | III   | 26     | Benfuresate                      | U     | 31     | <i>Butralin</i>                             | III   | 26     |
| Acetochlor   | III   | 26     | Benodanil                        | O     | 37     | Butroxydim                                  | III   | 26     |
| Acifluorfen  | III   | 26     | Benomyl                          | U     | 31, 39 | Buturon                                     | O     | 37     |
| Aclonifen  | U     | 31     | Benoxacor                        | U     | 31     | Butylamine                                  | II    | 21     |
| Acrinathrin  | U     | 31     | Benquinox                        | O     | 37     | Butylate                                    | U     | 31     |
| Acrolein   | Ib    | 18     | Bensulfuron-methyl               | U     | 31     | Cacodylic acid, see<br>Dimethylarsinic acid | III   | 27     |
| Acrylonitrile                                      | O     | 37     | Bensulide                        | II    | 21     | Cadusafos                                   | Ib    | 18     |
| Alachlor   | III   | 26     | Bensultap                        | III   | 26     | Calcium arsenate                            | Ib    | 18     |
| Alanycarb  | II    | 21     | Bentazone                        | III   | 26     | Calcium cyanamide                           | O     | 37     |
| Aldicarb   | Ia    | 16     | Benthrondine,<br>see Benfluralin | U     | 31     | Calcium cyanide                             | Ia    | 16     |
| Aldoxycarb   | O     | 37     | Benamidazole,<br>see Isoxaben    | U     | 34     | Campechlor                                  | O     | 37     |
| Aldrin   | O     | 37, 39 | Benzofofos, see Phosalone        | II    | 23     | Captafol                                    | Ia    | 16,39  |
| Allethrin  | III   | 26     | Benzoximate                      | O     | 37     | Captan                                      | U     | 31     |
| Allidochlor  | O     | 37     | Benzoylprop-ethyl                | O     | 37     | Carbamorph                                  | O     | 37     |
| Alloxydim  | U     | 31     | Benzthiazuron                    | O     | 37     | Carbanolate                                 | O     | 37     |
| Allyl alcohol                                      | Ib    | 18     | BHC, see HCH                     | II    | 23     | Carbaryl                                    | II    | 21     |
| Allylxy carb                                       | O     | 37     | Bifenox                          | U     | 31     | Carbendazim                                 | U     | 31     |
| Alphachlorohydrin, see<br>3-Chloro-2,3-propanediol | Ib    | 18     | Bifenthrin                       | II    | 21     | Carbetamide                                 | U     | 31     |
| Alpha-cypermethrin                                 | II    | 22     | Bilanafos                        | II    | 21     | Carbofos, see Malathion                     | III   | 28     |
| Aluminium phosphide                                | FM    | 40     | Binapacryl                       | O     | 37, 39 | Carbofuran                                  | Ib    | 18, 39 |
| Ametryn  | III   | 26     | Bioallethrin                     | II    | 21     | Carbon disulfide                            | O     | 37     |
| Amidithion   | O     | 37     | Bioresmethrin                    | U     | 31     | Carbophenothion                             | O     | 37     |
| Aminocarb  | O     | 37     | Biphenyl                         | U     | 31     | Carbosulfan                                 | II    | 21     |
| Aminotriazole,<br>see Amitrole                     | U     | 31     | Bis(tributyltin) oxide           | O     | 37     | Carboxin                                    | U     | 31     |
| Amitraz  | III   | 26     | Bispyribac                       | U     | 31     | Carpropamid                                 | U     | 31     |
| Amitrole   | U     | 31     | Bisthiosemi                      | O     | 37     | Cartap                                      | II    | 21     |
| Ammonium sulfamate                                 | U     | 31     | Bitertanol                       | U     | 31     | Chinomethionat                              | III   | 26     |
| Ancymidol  | U     | 31     | Blasticidin-S                    | Ib    | 18     | <i>Chlomethoxyfen</i>                       | O     | 37     |
| Anilazine  | O     | 37     | BMPC, see Fenobucarb             | II    | 22     | Chloralose                                  | II    | 21     |
| Anilofos   | II    | 21     | Borax                            | U     | 31     | <i>Chloramben</i>                           | O     | 37     |
| Anthraquinone                                      | U     | 31     | Brodifacoum                      | Ia    | 16     | Chloraniformethan                           | O     | 37     |
| ANTU   | O     | 37     | Bromacil                         | U     | 31     | Chloranil                                   | O     | 37     |
| Aramite  | O     | 37     | Bromadiolone                     | Ia    | 16     | Chloranocryl                                | O     | 37     |
| Arsenous oxide                                     | O     | 37     | Bromethalin                      | Ia    | 16     | Chloransulam methyl                         | U     | 31     |
| Asulam   | U     | 31     | Bromobutide                      | U     | 31     | Chlorbenside                                | O     | 37     |
| Athidathion  | O     | 37     | Bromocyclen                      | O     | 37     | Chlorbicyclen                               | O     | 37     |
| Atraton  | O     | 37     | <i>Bromofenoxim</i>              | O     | 37     | <i>Chlorbromuron</i>                        | O     | 37     |
| Atrazine   | U     | 31     | Bromophos                        | O     | 37     | Chlorbufam                                  | O     | 37     |
| Azaconazole  | II    | 21     | Bromophos-ethyl                  | O     | 37     | Chlordane                                   | II    | 21,39  |
| Azamethiphos                                       | III   | 26     | Bromopropylate                   | U     | 31     | Chlordecone                                 | O     | 37     |
| Azimsulfuron                                       | U     | 31     | Bromoxynil                       | II    | 21     | Chlordimeform                               | O     | 37, 39 |
| Azidithion (Menazon)                               | O     | 38     | Bromuconazole                    | II    | 21     | Chlorethoxyfos                              | Ia    | 16     |
| Azinphos-ethyl                                     | Ib    | 18     | Bronopol                         | II    | 21     | Chlorfenac                                  | O     | 37     |
| Azinphos-methyl                                    | Ib    | 18     | Bufencarb                        | O     | 37     | Chlorfenapyr                                | II    | 21     |
| Aziprotryne  | O     | 37     | Bupirimate                       | U     | 31     | Chlorfenethol                               | O     | 37     |
| Azocyclotin  | II    | 21     | Buprofezin                       | U     | 31     | Chlorfenidin (Monuron)                      | O     | 38     |
| Azothoate  | O     | 37     | Butacarb                         | O     | 37     | Chlorfenprop-methyl                         | O     | 37     |
| Azoxystrobine                                      | U     | 31     | Butachlor                        | U     | 31     | Chlorfenson                                 | O     | 37     |
| <i>Bacillus thuringiensis</i>                      | U     | 31     | Butam                            | O     | 37     | Chlorfensulfide                             | O     | 37     |
| Barban   | O     | 37     | Butamifos                        | II    | 21     | Chlorfenvinphos                             | Ib    | 18     |
| Barium carbonate                                   | O     | 37     | Butenachlor                      | O     | 37     | Chlorfluazuron                              | U     | 32     |
| Benalaxyl  | U     | 31     | Buthidazole                      | O     | 37     | Chlorflurecol,<br>see Chlorflurenol         | O     | 37     |
| Benazolin  | U     | 31     | Buthiobate                       | O     | 37     | Chlorflurenol                               | O     | 37     |
| Bendiocarb   | II    | 21     | Butocarboxim                     | Ib    | 18     | Chloridazon                                 | U     | 32     |
| Benefin, see Benfluralin                           | U     | 31     | Butonate                         | O     | 37     | Chlorimuron                                 | U     | 32     |
| Benfluralin  | U     | 31     | Butopyronoxyl                    | O     | 37     | Chlormebuform                               | O     | 37     |
| Benfuracarb  | II    | 21     | Butoxycarboxim                   | Ib    | 18     | Chlormephos                                 | Ia    | 16     |

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| Common name                 | Class | Page   | Common name                 | Class | Page  | Common name                | Class | Page   |
|-----------------------------|-------|--------|-----------------------------|-------|-------|----------------------------|-------|--------|
| Chloromequat (chloride)     | III   | 26     | CVP, see                    |       |       | Diafenthuron               | U     | 32     |
| Chlormethiuron              | O     | 37     | Chlorfenvinphos             | Ib    | 18    | Dialifor (Dialifos)        | O     | 37     |
| Chlornitrofen               | O     | 37     | Cyanazine                   | II    | 21    | Dialifos                   | O     | 37     |
| Chloroacetic acid           | III   | 26     | Cyanofenphos                | O     | 37    | Di-allate                  | O     | 37     |
| Chlorobenzilate             | O     | 37, 39 | CYAP, see Cyanophos         | II    | 21    | Diallyldichloroacetamide,  |       |        |
| Chlorocholine chloride, see |       |        | Cyanophos                   | II    | 21    | see Dichlormid             | III   | 26     |
| Chloromequat (chloride)     | III   | 26     | Cyanthoate                  | O     | 37    | Diamidafos                 | O     | 37     |
| Alphachlorohydrin, see      |       |        | Cycloate                    | III   | 26    | Dibrom, See Naled          | II    | 23     |
| 3-Chloro-2,3-propanediol    | Ib    | 18     | Cycloheximide               | O     | 37    | Diazinon                   | II    | 22     |
| Chloroneb                   | O     | 37     | Cycloprothrin               | U     | 32    | Dibromochloropropane       | O     | 37     |
| Chlorophacinone             | Ia    | 16     | Cyclosulfamuron             | U     | 32    | 1,2-Dibromoethane          |       |        |
| Chloropicrin                | FM    | 40     | Cycloxydim                  | U     | 32    | (EDB)                      | FM    | 39, 40 |
| 3-Chloro-1,2-propanediol    | Ib    | 18     | Cycluron                    | O     | 37    | Dibutyl phthalate          | O     | 37     |
| Chloropropylate             | O     | 37     | Cyfluthrin                  | II    | 21    | Dibutyl succinate          | O     | 37     |
| Chlorothalonil              | U     | 32     | Beta-cyfluthrin             | II    | 21    | Dicamba                    | III   | 26     |
| Chlorotoluron               | U     | 32     | Cyhalofop                   | U     | 32    | Dichlobenil                | U     | 32     |
| Chloroxuron                 | O     | 37     | Cyhalothrin                 | II    | 21    | Dichlofenthion             | O     | 37     |
| Chlorphenamidine            |       |        | Lambda-cyhalothrin          | II    | 23    | Dichlofluanid              | U     | 32     |
| (Chlordimeform)             | O     | 37, 39 | CYP (Cyanofenphos)          | O     | 37    | Dichlorfenidim, see Diuron | U     | 32     |
| Chlorphonium chloride       | O     | 37     | Cyhexatin                   | III   | 26    | Dichlormid                 | III   | 26     |
| Chlorphoxim                 | O     | 37     | Cymoxanil                   | III   | 26    | Dichlorobenzene            | III   | 26     |
| Chlorpropham                | U     | 32     | Cyometrinil                 | O     | 37    | Dichlorophen               | III   | 26     |
| Chlorpyrifos                | II    | 21     | Cypendazole                 | O     | 37    | Dichloropicolinic acid,    |       |        |
| Chlorpyrifos methyl         | U     | 32     | Cypermethrin                | II    | 21    | see Clopyralid             | U     | 32     |
| Chlorquinox                 | O     | 37     | Alpha-cypermethrin          | II    | 22    | 1,2-Dichloropropane        | O     | 37     |
| Chlorsulfuron               | U     | 32     | Cyphenothrin                |       |       | 1,3-Dichloropropene        | FM    | 39, 40 |
| Chlorthal-dimethyl          | U     | 32     | [(1R)-isomers]              | II    | 22    | Dichlorprop                | III   | 26     |
| <i>Chlorthiamid</i>         | O     | 37     | Cyproconazole               | III   | 26    | Dichlorvos                 | Ib    | 18     |
| Chlorthiophos               | O     | 37     | Cyprofuram                  | O     | 37    | Dichlozoline               | O     | 37     |
| Chlozolate                  | U     | 32     | Cypromid                    | O     | 37    | Diclobutrazol              | O     | 37     |
| Cinmethylin                 | U     | 32     | Cyromazine                  | U     | 32    | Diclofop                   | III   | 26     |
| Cinosulfuron                | U     | 32     | 2,4-D                       | II    | 22    | Diclomezine                | U     | 32     |
| Cismethrin,                 |       |        | Daimuron                    | U     | 32    | Dicloran                   | U     | 32     |
| see Resmethrin              | III   | 29     | Dalapon                     | U     | 32    | Diclosulam                 | U     | 32     |
| Citrex, see Dodine          | III   | 27     | Daminozide                  | U     | 32    | Dicofol                    | III   | 27     |
| Cloethocarb                 | O     | 37     | DAPA (Fenaminosulf)         | O     | 38    | Dicrotophos                | Ib    | 18     |
| Clofentezine                | U     | 32     | Dazomet                     | III   | 26    | Dieldrin                   | O     | 37, 39 |
| Clofop                      | O     | 37     | DBCP (Dibromochloro         |       |       | <i>Dieno chlor</i>         | O     | 37     |
| Clomazone                   | II    | 21     | propane)                    | O     | 37    | Diethatyl                  | O     | 37     |
| Clomeprop                   | U     | 32     | <i>DCBN (Chlorthiamid)</i>  | O     | 37    | Diethofencarb              | U     | 32     |
| Clonitralide,               |       |        | 2,4-DB                      | III   | 26    | Diethyltoluamide           | III   | 27     |
| see Niclosamide             | U     | 35     | DDT                         | II    | 22,39 | Difenacoum                 | Ia    | 16     |
| Clopyralid                  | U     | 32     | DDVF, see Dichlorvos        | Ib    | 18    | Difenoconazole             | III   | 27     |
| Cloxyfonac                  | U     | 32     | DDVP, see Dichlorvos        | Ib    | 18    | Difenoxyuron               | O     | 37     |
| CNA, see Dicloran           | U     | 32     | DEET,                       |       |       | Difenzoquat                | II    | 22     |
| COMU (Cycluron)             | O     | 37     | see Diethyltoluamide        | III   | 27    | Difethialone               | Ia    | 16     |
| Copper hydroxide            | III   | 26     | Dehydroacetic acid (Disul)) | O     | 37    | Diflubenzuron              | U     | 32     |
| Copper oxychloride          | III   | 26     | Delachlor                   | O     | 37    | Difflufenican              | U     | 32     |
| Copper sulfate              | II    | 21     | Delnav (Dioxathion)         | O     | 37    | Difolatan, see Captafol    | Ia    | 16, 39 |
| Coumachlor                  | O     | 37     | Deltamethrin                | II    | 22    | Dikegulac                  | U     | 32     |
| Coumaphos                   | Ib    | 18     | Demephion-O                 | O     | 37    | Dimefox                    | O     | 37     |
| Coumatetralyl               | Ib    | 18     | Demephion-S                 | O     | 37    | Dimefuron                  | U     | 32     |
| 4-CPA                       | III   | 26     | Demeton-O                   | O     | 37    | Dimepiperate               | III   | 27     |
| Credazine                   | O     | 37     | Demeton-S                   | O     | 37    | Dimethachlor               | III   | 27     |
| Crimidine                   | O     | 37     | Demeton-S-methyl            | Ib    | 18    | Dimethametryn              | III   | 27     |
| Crotoxyphos                 | O     | 37     | Demeton-S-methylsulphon     | O     | 37    | Dimethipin                 | III   | 27     |
| Crufomate                   | O     | 37     | 2,4-DES (Disul)             | O     | 37    | Dimethirimol               | U     | 32     |
| Cryolite                    | U     | 32     | Desmedipham                 | U     | 32    | Dimethoate                 | II    | 22     |
| Cuprous oxide               | II    | 21     | <i>Desmetryn</i>            | O     | 37    | Dimethomorph               | U     | 32     |

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| Dimethyl phthalate           | U     | 32     | Esdeballéthrin,                         |       |        | Fenson                   | O     | 38    |
| Dimethylarsinic acid         | III   | 27     | see Bioallethrin                        | II    | 21     | Fensulfothion            | O     | 38    |
| Dimetilan                    | O     | 37     | Esfenvalerate                           | II    | 22     | Fenthiaprop              | O     | 38    |
| Dimexano                     | O     | 37     | ESP (Oxydeprofos)                       | O     | 37     | Fenthion                 | II    | 22    |
| Dinex                        | O     | 37     | Esprocarb                               | III   | 27     | Fentin acetate           | II    | 22    |
| Diniconazole                 | III   | 27     | Etacelasil                              | O     | 37     | Fentin hydroxide         | II    | 22    |
| Dinitramine                  | U     | 32     | Etaconazole                             | O     | 37     | <i>Fenuron</i>           | O     | 38    |
| Dinobuton                    | II    | 22     | Ethalfuralin                            | U     | 32     | <i>Fenuron-TCA</i>       | O     | 38    |
| Dinocap                      | III   | 27     | Ethephon                                | U     | 32     | Fenvalerate              | II    | 22    |
| Dinocton                     | O     | 37     | Ethidimuron                             | O     | 37     | Ferbam                   | U     | 33    |
| Dinoseb                      | O     | 37,39  | Ethiofencarb                            | Ib    | 18     | Ferimzone                | III   | 27    |
| Dinoseb acetate              | O     | 37,39  | Ethiolate                               | O     | 37     | Fipronil                 | II    | 22    |
| Dinoterb                     | Ib    | 18     | Ethion                                  | II    | 22     | Flamprop                 | O     | 38    |
| Dioxabenzophos               | O     | 37     | Ethirimol                               | U     | 32     | Flamprop-M               | U     | 33    |
| Dioxacarb                    | O     | 37     | Ethoate-methyl                          | O     | 37     | Flocoumafen              | Ia    | 16    |
| Dioxathion                   | O     | 37     | Ethofumesate                            | U     | 33     | <i>Florasulam</i>        | U     | 33    |
| Diphacinone                  | Ia    | 16     | Ethohexadiol                            | O     | 37     | Fluazifop                | O     | 38    |
| Diphenamid                   | III   | 27     | Ethoprop,                               |       |        | Fluazifop-p-butyl        | III   | 27    |
| Diphenyl, see Biphenyl       | U     | 31     | see Ethoprophos                         | Ia    | 16     | Flubenzimine             | O     | 38    |
| Dipropetryn                  | O     | 37     | Ethoprophos                             | Ia    | 16     | Flucarbazono-sodium      | U     | 33    |
| Dipropyl isocincomerate      | U     | 32     | <i>Ethyl butylacetylaminopropionate</i> |       |        | Fluchloralin             | III   | 27    |
| Diquat                       | II    | 22     |   | U     | 33     | Flucycloxuron            | U     | 33    |
| Disodium octaborate,         |       |        | Ethylene dibromide                      | FM    | 39, 40 | Flucythrinate            | Ib    | 18    |
| see Borax                    | U     | 31     | Ethylene dichloride                     | FM    | 39, 40 | Fluenteil                | O     | 38    |
| Disul                        | O     | 37     | Ethylene oxide                          | FM    | 39, 40 | Flufenacet               | III   | 27    |
| Disulfoton                   | Ia    | 16     | Ethyleneglycol-bis(trichloroacetate)    |       |        | Flufenoxuron             | U     | 33    |
| Ditalimfos                   | O     | 37     |   | O     | 37     | Flumetralin              | U     | 33    |
| Dithianon                    | III   | 27     | Ethylthiometon,                         |       |        | Flumetsulam              | U     | 33    |
| Dithiopyr                    | U     | 32     | see Disulfoton                          | Ia    | 16     | Fluometuron              | U     | 33    |
| Diuron                       | U     | 32     | Etofenprox                              | U     | 33     | Fluoroacetamide          | Ib    | 18,39 |
| DMTP, see Methidathion       | Ib    | 19     | Etridiazole                             | III   | 27     | Fluorodifen              | O     | 38    |
| DNBP (Dinoseb)               | O     | 37, 39 | <i>Etrimfos</i>                         | O     | 37     | Fluoroglycofen           | III   | 27    |
| DNBPA                        |       |        | EXD                                     | O     | 38     | Fluoromide               | O     | 38    |
| (Dinoseb acetate)            | O     | 37, 39 | Famoxadone                              | U     | 33     | Fluotrimazole            | O     | 38    |
| DNOC                         | Ib    | 18,39  | Famphur                                 | Ib    | 18     | Flupropanate             | U     | 33    |
| Dodemorph                    | U     | 32     | Fenaminoisulf                           | O     | 38     | Flupyrsulfuron           | U     | 33    |
| Dodine                       | III   | 27     | Fenamiphos                              | Ib    | 18     | Flurecol-butyl,          |       |       |
| Doguanide, see Dodine        | III   | 27     | Fenarimol                               | U     | 33     | see Flurenol             | U     | 33    |
| Drazoxolon                   | O     | 37     | Fenazaflor                              | O     | 38     | Flurenol                 | U     | 33    |
| DSMA, see                    |       |        | Fenazaquin                              | II    | 22     | Fluridone                | U     | 33    |
| Methylarsonic acid           | III   | 28     | <i>Fenbuconazole</i>                    | U     | 33     | Flurochloridone          | U     | 33    |
| EDDP, see Edifenphos         | Ib    | 18     | Fenbutatin oxide                        | U     | 33     | Fluroxypyr               | U     | 33    |
| Edifenphos                   | Ib    | 18     | Fenchlorazole                           | U     | 33     | Flurprimidol             | III   | 27    |
| Eglinazine                   | O     | 37     | Fenchlorphos                            | O     | 38     | Flusilazole              | III   | 27    |
| Empenthrin [(1R) isomers]    | III   | 27     | Fenclorim                               | U     | 33     | Fluthiacet               | U     | 33    |
| Endosulfan                   | II    | 22     | Fenfuram                                | U     | 33     | Flutolanil               | U     | 33    |
| Endothal-sodium              | II    | 22     | Fenhexamid                              | U     | 33     | Flutriafol               | III   | 27    |
| Endothion                    | O     | 37     | <i>Fenidim</i> , see <i>Fenuron</i>     | O     | 38     | tau-Fluvalinate          | U     | 33    |
| Endrin                       | O     | 37     | Fenitropan                              | O     | 38     | Fluvalinate              | O     | 38    |
| EPBP                         | O     | 37     | Fenitrothion                            | II    | 22     | Fluxofenim               | II    | 22    |
| Ephirsulfonate               |       |        | Fenobucarb                              | II    | 22     | Folpet                   | U     | 33    |
| see Chlorfenson              | O     | 37     | Fenoprop (Silvex)                       | O     | 38     | Fomesafen                | III   | 27    |
| EPN                          | Ia    | 16     | Fenothiocarb                            | III   | 27     | <i>Fonofos</i>           | O     | 38    |
| Epoxyethane,                 |       |        | Fenoxacarb                              | O     | 38     | Formaldehyde             | FM    | 40    |
| see Ethylene oxide           | FM    | 39, 40 | Fenoxycarb                              | U     | 33     | Formetanate              | Ib    | 18    |
| EPTC                         | II    | 22     | Fenpiclonil                             | U     | 33     | <i>Formothion</i>        | O     | 38    |
| Erbon                        | O     | 37     | Fenpropathrin                           | II    | 22     | Fosamine                 | U     | 33    |
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| Fosmethilan              | O     | 38     | <i>Isazofos</i>           | O     | 38     | Mephospholan               | O     | 38     |
| Fosthietan               | O     | 38     | Isobenzan                 | O     | 38     | Mepiquat                   | III   | 28     |
| Fuberidazole             | II    | 22     | Isobornyl thiocynoacetate | O     | 38     | Mepronil                   | U     | 34     |
| Furalaxyl                | III   | 27     | Isocarbamid               | O     | 38     | Mercapthphos (Demeton-O)   | O     | 37     |
| Furathiocarb             | Ib    | 18     | Isocil                    | O     | 38     | and Demeton-S )            | O     | 37     |
| Furconazole-cis          | O     | 38     | Isodrin                   | O     | 38     | Mercaptodimethur,          |       |        |
| Furmecyclox              | O     | 38     | <i>Isofenphos</i>         | O     | 38     | see Methiocarb             | II    | 23     |
| Gamma-BHC,               |       |        | Isomethiozin              | O     | 38     | Mercuric chloride          | Ia    | 16, 39 |
| see gamma-HCH            | II    | 23, 39 | Isonoruron                | O     | 38     | Mercuric oxide             | Ib    | 19, 39 |
| Gamma-HCH                | II    | 23, 39 | Isoprocab                 | II    | 23     | Mercurous chloride         | II    | 23, 39 |
| Gibberellic acid         | U     | 33     | Isopropalin               | O     | 38     | Metalaxyl                  | III   | 28     |
| Glufosinate              | III   | 27     | Isoprothiolane            | III   | 28     | Metaldehyde                | II    | 23     |
| Glyodin                  | O     | 38     | Isoproturon               | III   | 28     | Metamitron                 | III   | 28     |
| Glyphosate               | U     | 33     | Isothioate                | O     | 38     | Metam-sodium               | II    | 23     |
| Glyphosine               | O     | 38     | Isouron                   | III   | 28     | Metaphos,                  |       |        |
| Griseofulvin             | O     | 38     | Isoxaben                  | U     | 34     | see Parathion-methyl       | Ia    | 16     |
| Guazatine                | II    | 23     | Isoxapyrifop              | O     | 38     | Metazachlor                | U     | 34     |
| Halacrinat               | O     | 38     | Isoxathion                | Ib    | 18     | Metconazole                | III   | 28     |
| <i>Halofenozide</i>      | U     | 33     | Jodfenphos                | O     | 38     | Methabenzthiazuron         | U     | 34     |
| Haloxydine               | O     | 38     | Karbation,                |       |        | Methacrifos                | II    | 23     |
| Haloxypop                | II    | 23     | see Metam-sodium          | II    | 23     | Methamidophos              | Ib    | 19, 39 |
| HCH                      | II    | 23,39  | Karbutilate               | O     | 38     | Methasulfocarb             | II    | 23     |
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| Heptenophos              | Ib    | 18     | Kelevan                   | O     | 38     | Methidathion               | Ib    | 19     |
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| Hexachlorobenzene        | Ia    | 16,39  | Lambda-cyhalothrin        | II    | 23     | Methomyl                   | Ib    | 19     |
| Hexaconazole             | U     | 33     | Lead arsenate             | Ib    | 19     | Methoprene                 | U     | 34     |
| Hexaflumuron             | U     | 33     | Lenacil                   | U     | 34     | Methoprotryne              | O     | 38     |
| Hexaflurate              | O     | 38     | Leptophos                 | O     | 38     | Methoxychlor               | U     | 34     |
| Hexazinone               | III   | 27     | Lindane,                  |       |        | Methoxyethylmercury        |       |        |
| Hexythiazox              | U     | 33     | see Gamma-HCH             | II    | 23, 39 | silicate                   | O     | 38, 39 |
| Hydramethylnon           | III   | 28     | Linuron                   | U     | 34     | Methoxymethyl mercury      |       |        |
| Hydrogen cyanide         | FM    | 40     | Lythidathion              | O     | 38     | chloride                   | O     | 38, 39 |
| Hydroprene               | U     | 33     | M74, see Disulfoton       | Ia    | 16     | Methoxyphenone             | O     | 38     |
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| octyl sulphide           | U     | 33     | Malathion                 | III   | 28     | Methyl bromide             | FM    | 40     |
| Hydroxyisoxazole,        |       |        | Maldison, see Malathion   | III   | 28     | Methyl isothiocyanate      | II    | 23     |
| see Hymexazol            | U     | 33     | Maleic hydrazide          | U     | 34     | Methylarsonic acid         | III   | 28     |
| Hydroxyquinolinesulfate  | O     | 38     | Malonoben                 | O     | 38     | Methyldymron               | U     | 34     |
| Hymexazol                | U     | 33     | Mancozeb                  | U     | 34     | Methylmercaptphos teolovy, |       |        |
| Imazalil                 | II    | 23     | Maneb                     | U     | 34     | see Demeton-S-methyl       | Ib    | 18     |
| Imazamethabenzmethyl     | U     | 33     | MBCP (Leptophos)          | O     | 38     | Methylmercury              |       |        |
| Imazapyr                 | U     | 33     | MCC (SWEP)                | O     | 38     | dicyandiamide              | O     | 38, 39 |
| Imazaquin                | U     | 33     | MCPA                      | III   | 28     | Methyl-parathion           | Ia    | 16, 39 |
| Imazethapyr              | U     | 34     | MCPA-thioethyl            | III   | 28     | Metilmerkaptophosoksid,    |       |        |
| Imibenconazole           | U     | 34     | MCPB                      | III   | 28     | see Oxydemeton-methyl      | Ib    | 19     |
| Imidacloprid             | II    | 23     | Mebenil                   | O     | 38     | Metiram                    | U     | 34     |
| Iminoctadine             | II    | 23     | Mecarbam                  | Ib    | 19     | Metobromuron               | U     | 34     |
| Inabenfide               | U     | 34     | Mecarbinzid               | O     | 38     | Metolachlor                | III   | 28     |
| Iodofenphos (Jodfenphos) | O     | 38     | Mecarphon                 | O     | 38     | Metolcarb                  | II    | 23     |
| Ioxynil                  | II    | 23     | Mecoprop                  | III   | 28     | Metosulam                  | U     | 34     |
| Ioxynil octanoate        | II    | 23     | Mecoprop-P                | III   | 28     | Metoxuron                  | U     | 34     |
| Ipazine                  | O     | 38     | Medinoterb acetate        | O     | 38     | Metribuzin                 | II    | 23     |
| IBP, see Iprobenfos      | III   | 28     | Mefenacet                 | U     | 34     | Metiltriazotion,           |       |        |
| Iprobenfos               | III   | 28     | Mefluidide                | III   | 28     | see Azinphos-methyl        | Ib    | 18     |
| Iprodione                | U     | 34     | Menazon                   | O     | 38     | Metsulfovax                | O     | 38     |
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| Mevinphos  | Ia    | 16     | Oxycarboxin                                 | U     | 34     | Polychlorocamphene<br>(Camphechlor) | O     | 37, 39 |
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| Mirex2   | O     | 38     | 2,4 PA, see 2,4-D                           | II    | 22     | Primisulfuron                       | U     | 35     |
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| Monolinuron  | U     | 34     | Paradichlorobenzene,<br>see Dichlorobenzene | III   | 26     | Prodiamine                          | U     | 35     |
| Monuron  | O     | 38     | Parafluron                                  | O     | 38     | Profenofos                          | II    | 24     |
| Monuron-TCA  | O     | 38     | Paraquat                                    | II    | 23     | Profluralin                         | O     | 38     |
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| MPP, see Fenthion  | II    | 22     | Paris green                                 | Ib    | 19     | Promecarb                           | O     | 38     |
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| Naptalam   | U     | 34     | Phenkaptan                                  | O     | 38     | Propham                             | U     | 35     |
| 2-Naphthoxyacetic acid                                     | III   | 28     | Phenmedipham                                | U     | 35     | Propiconazole                       | II    | 24     |
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| Nicosulfuron   | U     | 34     | Phenthoate                                  | II    | 23     | Propyl isome                        | O     | 38     |
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| Nitrilacarb  | O     | 38     | 2-Phenylphenol                              | U     | 35     | Prothiofos                          | II    | 24     |
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| Nitrothal-isopropyl  | U     | 34     | Phosacetim                                  | O     | 38     | Protiophos, see Prothiofos          | II    | 24     |
| Norbormide   | O     | 38     | Phosalone                                   | II    | 23     | Proxan                              | O     | 38     |
| Norflurazon  | U     | 34     | Phosdiphen                                  | O     | 38     | Pydanon                             | O     | 38     |
| Noruron  | O     | 38     | Phosfolan                                   | O     | 38     | Pyracarbolid                        | O     | 38     |
| <i>Noviflumuron</i>  | U     | 34     | Phosmet                                     | II    | 23     | Pyraclofos                          | II    | 24     |
| Nuarimol   | III   | 28     | Phosphamidon                                | Ia    | 16, 39 | Pyrazolynate                        | U     | 35     |
| Octhilinone  | III   | 28     | Phosphine                                   | FM    | 40     | Pyrazon, see Chloridazon            | U     | 32     |
| N-octylbicycloheptene<br>dicarboximide                     | III   | 28     | Phosphorus acid                             | U     | 35     | Pyrazophos                          | II    | 24     |
| (Octylthio)ethanol, see<br>2-Hydroxyethyloctyl<br>sulphide | U     | 33     | Phoxim                                      | II    | 23     | Pyrazosulfuron                      | U     | 35     |
| Ofurace  | U     | 34     | Phthalide                                   | U     | 35     | Pyrazoxyfen                         | III   | 29     |
| Omethoate  | Ib    | 19     | Phthalofos, see Phosmet                     | II    | 23     | Pyrethrins                          | II    | 24     |
| Oryzalin   | U     | 34     | Picloram                                    | U     | 35     | Pyridaben                           | III   | 29     |
| Oxabetrinil  | U     | 34     | Pimaricin                                   | III   | 28     | Pyridate                            | III   | 29     |
| Oxadiazon  | U     | 34     | <i>Pindone</i>                              | O     | 38     | Pyridinitril                        | O     | 38     |
| Oxadixyl   | III   | 28     | Piperonyl butoxide                          | U     | 35     | Pyrifenox                           | III   | 29     |
| Oxamyl   | Ib    | 19     | Piperophos                                  | II    | 24     | Pyrimethanil                        | U     | 35     |
| Oxapyrazon   | O     | 38     | Piproctanyl                                 | O     | 38     | Pyriminobac                         | U     | 35     |
|  |       |        | Pirimicarb                                  | II    | 24     | Pyriproxyfen                        | U     | 35     |
|  |       |        | <i>Pirimiphos-ethyl</i>                     | O     | 38     | Pyrithiobac sodium                  | U     | 35     |

## INDEX. CLASSIFICATION OF ACTIVE PESTICIDE INGREDIENTS, CONTINUED

**Ia = Extremely hazardous; IB = Highly hazardous; II =Moderately hazardous; III = slightly hazardous; U = Unlikely to present acute hazard in normal use; FM =Fumigant, not classified; O = Obsolete as pesticide, not classified.**

| Common name                            | Class | Page | Common name                         | Class | Page   | Common name                            | Class | Page   |
|--|-------|------|-------------------------------------|-------|--------|--|-------|--------|
| Pyroquilon                             | II    | 24   | Sulfuryl fluoride                   | FM    | 40     | Timet, see Phorate                     | Ia    | 16     |
| Quinacetol sulfate                     | O     | 38   | Sulphur                             | U     | 35     | Tiocarbazil                            | U     | 36     |
| Quinalphos                             | II    | 24   | <i>Sulprofos</i>                    | O     | 38     | TMTD, see Thiram                       | III   | 29     |
| Quinclorac                             | U     | 35   | SWEP                                | O     | 38     | Tolclofos-methyl                       | U     | 36     |
| Quinmerac                              | U     | 35   | 2,4,5-T                             | O     | 38, 39 | Tolyfluanid                            | U     | 36     |
| Quinoclamine                           | III   | 29   | tau-Fluvalinate                     | U     | 33     | Tolylmethylcarbamate,<br>see Metolcarb | II    | 23     |
| Quinomethionate,<br>see Chinomethionat | III   | 26   | 2,3,6-TBA                           | III   | 29     | Toxaphene<br>(Camphechlor)             | O     | 37, 39 |
| Quinonamid                             | O     | 38   | TCA (acid)                          | II    | 24     | 2,4,5-TP (Fenoprop)                    | O     | 38     |
| Quinoxifen                             | U     | 35   | TCA (sodium salt)                   | U     | 35     | Tralkoxydim                            | III   | 29     |
| Quintozene                             | U     | 35   | TDE                                 | O     | 38     | Transfluthrin                          | U     | 36     |
| Quizalofop                             | III   | 29   | Tebuconazole                        | III   | 29     | Triadimefon                            | III   | 29     |
| Quizalofop-p-tefuryl                   | II    | 24   | <i>Tebufenozide</i>                 | U     | 35     | Triadimenol                            | III   | 29     |
| Red squill (Scilliroside)              | O     | 38   | Tebufenpyrad                        | III   | 29     | Tri-allate                             | III   | 29     |
| Reglon, see Diquat                     | II    | 22   | Tebupirimfos                        | Ia    | 16     | Triamiphos                             | O     | 38     |
| Resmethrin                             | III   | 29   | Tebutam                             | U     | 35     | Triapenthenol                          | O     | 38     |
| Rimsulfuron                            | U     | 35   | Tebuthiuron                         | III   | 29     | Triarimol                              | O     | 38     |
| Ronnel (Fenchlorphos)                  | O     | 38   | Tecnazene                           | U     | 35     | Triasulfuron                           | U     | 36     |
| Rotenone                               | II    | 24   | Tedion, see Tetradifon              | U     | 36     | Triazamate                             | II    | 24     |
| Ryania                                 | O     | 38   | Teflubenzuron                       | U     | 35     | Triazophos                             | Ib    | 19     |
| Ryanocline (Ryania)                    | O     | 38   | Tefluthrin                          | Ib    | 19     | Triazotion,<br>see Azinphos-ethyl      | Ib    | 18     |
| Sabadilla                              | O     | 38   | Temephos                            | U     | 35     | Tribenuron                             | U     | 36     |
| Salicylanilide                         | O     | 38   | TEPP                                | O     | 38     | Tricamba                               | O     | 38     |
| Salithion<br>(Dioxabenzophos)          | O     | 37   | Terbacil                            | U     | 35     | Trichlamide                            | O     | 38     |
| SAP, see Bensulide                     | II    | 21   | Terbucarb                           | O     | 38     | Trichlorfon                            | II    | 24     |
| Schradan                               | O     | 38   | Terbufos                            | Ia    | 16     | Trichloronat                           | O     | 38     |
| Scilliroside                           | O     | 38   | Terbumeton                          | II    | 24     | Triclopyr                              | III   | 29     |
| Secbumeton                             | O     | 38   | Terbuthylazine                      | U     | 35     | Tricyclazole                           | II    | 24     |
| Sec-butylamine,<br>see Butylamine      | II    | 21   | Terbutryn                           | U     | 35     | Tridemorph                             | II    | 24     |
| Sesamex                                | O     | 38   | Tetrachlorvinphos                   | U     | 36     | Tridiphane                             | O     | 38     |
| Sethoxydim                             | III   | 29   | Tetraconazole                       | II    | 24     | Trietazine                             | U     | 36     |
| Sevin, see Carbaryl                    | II    | 21   | Tetradifon                          | U     | 36     | Trifenmorph                            | O     | 38     |
| Siduron                                | U     | 35   | Tetramethrin                        | U     | 36     | Triflumizole                           | III   | 29     |
| Silvex (Fenoprop)                      | O     | 38   | Tetrasul                            | O     | 38     | Triflumuron                            | U     | 36     |
| Simazine                               | U     | 35   | Thallium sulfate                    | Ib    | 19     | Trifluralin                            | U     | 36     |
| Simetryn                               | III   | 29   | Thiabendazole                       | U     | 36     | Triflurosulfuron-methyl                | U     | 36     |
| Sodium arsenite                        | Ib    | 19   | Thiacloprid                         | II    | 24     | Triforine                              | U     | 36     |
| Sodium borate, see Borax               | U     | 31   | Thiazafurorin,<br>see Thiazafurorin | O     | 38     | Trimethacarb                           | O     | 38     |
| Sodium chlorate                        | III   | 29   | Thicyofen                           | O     | 38     | Triticonazole                          | U     | 36     |
| Sodium cyanide                         | Ib    | 19   | Thidiazuron                         | U     | 36     | Trizazotion,<br>see Azinphos-ethyl     | Ib    | 18     |
| <i>Sodium fluoride</i>                 | O     | 38   | Thifensulfuron-methyl               | U     | 36     | Undecan-2-one                          | III   | 29     |
| Sodium fluoroacetate                   | Ia    | 16   | <i>Thifluzamide</i>                 | U     | 36     | Uniconazole                            | III   | 29     |
| <i>Sodium hexafluorosilicate</i>       | O     | 38   | Thiobencarb                         | II    | 24     | Validamycin                            | U     | 36     |
| Spinosad                               | U     | 35   | Thiocyclam                          | II    | 24     | Vamidothion                            | Ib    | 19     |
| Spiroxamine                            | II    | 24   | Thiodan, see Endosulfan             | II    | 22     | <i>Vernolate</i>                       | O     | 38     |
| Stirofox,<br>see Tetrachlorvinphos     | U     | 36   | Thiodicarb                          | II    | 24     | Vinclozolin                            | U     | 36     |
| Strychnine                             | Ib    | 19   | Thiofanox                           | Ib    | 19     | Warfarin                               | Ib    | 19     |
| Sulfallate                             | O     | 38   | Thiofos, see Parathion              | Ia    | 16, 39 | XMC                                    | III   | 29     |
| Sulfuramid                             | III   | 29   | Thiometon                           | Ib    | 19     | Xylcarb                                | II    | 24     |
| Sulfometuron                           | U     | 35   | Thionazin                           | O     | 38     | Zeta-cypermethrin                      | Ib    | 19     |
| Sulfotep                               | Ia    | 16   | Thiophanate                         | O     | 38     | Zinc phosphide                         | Ib    | 19     |
| Sulfur, see Sulphur                    | U     | 35   | Thiophanate-methyl                  | U     | 36     | Zineb                                  | U     | 36     |
| Sulfoxide                              | O     | 38   | Thioquinox                          | O     | 38     | Ziram                                  | III   | 29     |
|  |       |      | Thioxamyl, see Oxamyl               | Ib    | 19     |  |       |        |
|  |       |      | Thiram                              | III   | 29, 39 |  |       |        |

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