IPCS News

The Newsletter of the International Programme on Chemical Safety

Issue 9 June 1996

Women and chemicals

It might be assumed that if a chemical is toxic to humans the implications for women and men are equal. While this is generally true, there are many cases where it is not. For this reason the IPCS is preparing a report on women and chemicals, which will be available later this year.

Apart from the fact that certain chemical may pose a greater risk to women than men, a woman may pass chemicals (or the effects of chemicals) to her fetus via the placenta or to her baby via her milk. For instance, β-hexachlorocyclohexane, a by-product from the manufacture of the pesticide lindane, seems to be a universal environmental contaminant and has been found at high levels in breast milk.

Unfortunately, statistical data on the effects of chemicals on women's health is very patchy, very little coming from developing countries. Even where it exists, the data may be unreliable. As a result of the socio-economic and cultural discrimination existing in certain countries, females suffer considerably more than males from restrictions in access to regular medical care. For example, there are some countries where men who become poisoned by chemicals are admitted to hospital, while women are treated in a non-medical setting, escaping formal registration systems.

WHO Photo by M. Crozet

Certain chemicals can pass in the milk from mother to infant

Owing to differences in occupation patterns, family organization and life style, women are often more exposed to some specific chemicals than men. For instance, in the flower industry in Latin American countries, women are particularly exposed to the chemicals used in greenhouses.

One of the best examples of workplace toxic effects is the so-called psychological instability which affected many women in the microelectronics industry and was diagnosed as "mass psychogenic ill-

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Inside

INCHEM CD-ROM now available

It is now possible to search, view and print tens of thousands of pages of IPCS documents and database records. The IPCS INCHEM CD-ROM has been published this month and gives access to safety information on hundreds of chemicals.

The first issue of the CD-ROM contains the following:

- IPCS Environmental Health Criteria, 134 volumes
- IPCS Health and Safety Guides, 19 volumes
- IPCS International Chemical Safety Cards for 725 chemicals
- WHO/FAO Pesticide Data Sheets 1 to 80
- JECFA Monographs, 10 volumes, and 749 evaluations

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Women and chemicals

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ness". It was eventually found that the affective and personality disorders were the result of organic solvent toxicity. Women are also generally much more exposed than men to the indoor air pollution resulting from the burning of coal and biomass fuel.

The societal pressure on women to use cosmetics or lose weight may be health-damaging. For instance, mercury-containing cream or soap used by dark-skinned women to lighten their skin colour can cause kidney disease, and herbal medications have caused hepatotoxicity.

Not only may women be more exposed than men to certain chemicals but the effects of some chemicals are more marked for women than for men. There are anatomical, physiological and biochemical differences between women and men, such as body surface area, water content, fat content, enzymatic processes and protein binding. These lead to toxicokinetic and toxicodynamic differences between men, non-pregnant women and pregnant women.

How may women help to improve chemical safety?

Normally it is women who are the managers in the home and the providers of basic health care in the community and education in the primary school. Provided that they are appropriately informed and trained, women can be the principal agents for preventing toxic exposure to chemicals. There is therefore a need for information about toxicological risks, such as the effects of exposure to pesticides, in easily understandable language. This information can be diffused via newspapers, radio and television and through booklets available in health centres and libraries. However, it is important to reach rural areas as well as urban ones.

Health education programmes for women need to be promoted. These should always be carefully structured so as to transmit precise information on chemicals, stimulate discussion and encourage women to ask questions, express their beliefs and gain self-confidence.

Women represent a huge untapped resource for promoting chemical safety and protecting future generations. Providing the necessary information is an essential step. But political will is also needed to recognise the status of women in society and to accept their importance as agents for change. ◆

Further information on this subject and on the report "Women and chemicals" may be obtained from Dr Jenny Pronczuk de Garbino, IPCS (Fax: 4122-7914848; E-mail: Pronczukj@who.ch).

INCHEM CD-ROM

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- JMPR Evaluations, 6 volumes, and 1 summary
- IPCS Poisons Information Monographs for 100 substances
- IPCS/EC Antidotes Series, volumes 1 to 3
- ILO/CIS Chemical Database with 18 Country Exposure Limits and 20 Chemical Database records

A powerful text- and index-searching capability is included. Words or phrases are used to initiate a search within a current document or within all documents on the CD-ROM.

Future issues of the CD-ROM are expected to contain not only the additional volumes of these publications but also the new series of IPCS evaluation publications known as Concise International Chemical Assessment Documents (CICADs), other guidance material such as the WHO Drinking Water Quality Guidelines and Urban Air Quality Criteria, various training manuals and guides, and also related publications from other international organizations.

The CD-ROM has been developed with the cooperation of the Canadian Centre for Occupational Health and Safety (CCOHS) and as a result of financial support from a number of donors to the IPCS, particularly the Governments of Canada, Netherlands, Norway and the United Kingdom. Maintenance, updating, enhancement and user support of the CD-ROM will be financed by an annual user subscription. This has been set at US $ 500 per annum for single PC use, with a graduated subscription fee for network versions, depending on the number of terminals. Updates of the CD-ROM will be issued biannually to subscribers.

The hardware requirements include an IBM-compatible microcomputer (386 or greater) with a hard disk and at least 4 MB RAM ◆.

The INCHEM CD-ROM can be obtained from the Canadian Centre for Occupational Safety and Health, Customer Service, 250 Main Street East, Hamilton, Ontario, Canada L8N 1H6 (Phone: 1-905-570 8094 or 1-800-668 4284; Fax: 1-905-572 2206; E-mail: custserv@ccohs.ca).

Pollution Release and Transfer Registers

A system for tracking the release and movement of pollutants is being established in many parts of the world.

WHO/UNEP

Pollutant chemicals have an unfortunate tendency to migrate from their site of production. Metals released from mining operation, for instance, may be transported by water, contaminating fish long distances downstream and poisoning people who consume the fish. In order to create awareness of the potential risks of movement of pollutants, to control their levels and to improve the quality of the environment, a system of Pollution Release and Transfer Registers (PRTRs) has been established in a number of countries.

A PRTR is a database covering the release and transfer of potentially harmful chemicals, mainly from industry but also from other sources such as traffic, agriculture and even households. It provides information, for pollutants released to air, water or land, on the type of emission, the location and the quantities involved. It also deals with the transfer of waste material from the site of production and the method of its treatment.

Who needs PRTRs?

Who will benefit from an increased awareness of pollution control problems? Firstly, PRTRs give *governments* access to an integrated information source that can be used to define goals and priorities for environmental policies and national pollution reduction programmes. The impact of governmental strategies can be evaluated and adjusted via an annual update of the data.

Secondly, *industry* needs the global view of pollutant emission and waste transfer provided by PRTRs. They may even trigger voluntary agreements, on the part of industry, to establish pollution reduction strategies, and can be the basis for more accurate and effective communication with the government and the community.

Thirdly, the *public* has a right-to-know about those chemicals that affect their lives and their environment. PRTRs can enable and encourage the public to take an active part in the dialogue on environmental protection.

Existing activities

The USA, Canada, United Kingdom and the Netherlands have been collecting data on pollution release for a number of years. Egypt, Mexico and the Czech Republic are currently establishing PRTR systems through participation in pilot projects coordinated by the UN Institute for Training and Research (UNITAR).

The Organisation for Economic Co-operation and Development (OECD) has prepared a "Guidance to Governments" document for the implementation of national PRTRs. It is based on contributions from governments, industry and non-governmental and international organizations, and draws on experience from PRTR projects around the world.

New PRTRs

Some countries are unaware of the possibilities of PRTRs. Others are about to take the first steps towards establishing PRTRs. It would be a gross waste of time and effort if

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What are the international organizations doing?

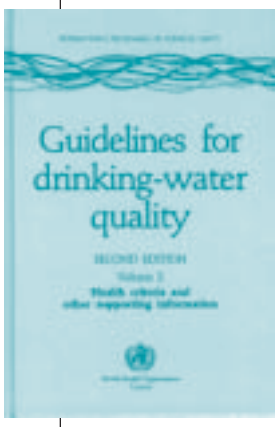
UNITAR plans to issue a set of documents that will assist countries, particularly the developing ones, to design PRTR systems. WHO is developing a guide for the estimation of emissions. This is designed for countries that wish to complement reported data by estimation or to include emissions that cannot normally be reported, e.g., those from traffic, agriculture or households.

UNEP's International Register for Potentially Toxic Chemicals (IRPTC) will act as a clearing house for improving the awareness and exchange of information. It will also provide special assistance to countries for data management and advice on adapting existing software for country-specific needs.

The UN Industrial Development Organization (UNIDO) has developed a data management system and methodology for PRTR-type data collection from industry in developing countries. UNIDO's experience of similar projects in developing countries is a considerable benefit in giving assistance to establishing PRTRs or providing relevant training.

Guidelines for Drinking-water Quality

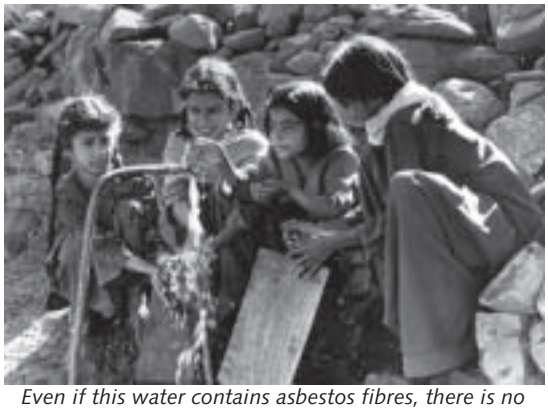
Volume 2: Health Criteria and Other Supporting Information Second edition (989 pp)



This volume reviews and interprets the extensive toxicological, epidemiological, and clinical evidence that shaped the determination of guideline values for drinking-water quality. Organized to parallel and extend the coverage of volume 1 (published in 1993), which presented the recommended guideline values and brief summary statements supporting these values, this second work communicates the scientific rationale for individual recommendations based on a critical review of data linking health hazards to specific exposure levels. In so doing, it aims to establish an authoritative basis for national water-quality standards that are consistent with the goal of providing safe drinking-water in a sufficient quantity. Well over 3000 references to the literature are included.

By giving a full scientific perspective to the recommendations, the book helps national authorities, water engineers and toxicologists judge the likelihood and severity of risks associated with each substance or contaminant that may be present in drinking-water and has a potential effect on human health. The volume also provides brief guidance on the detection of contaminants in water and measures for their control.

The book has 17 chapters presented in three parts. The first, on microbiological aspects, addresses the common and widespread health risks associated with the direct or indirect contamination of drinking-water with human or animal excreta, particularly faeces.



WHO Photo

Even if this water contains asbestos fibres, there is no evidence that it poses any health hazard.

The second and most extensive part, which contains almost 800 pages, provides evaluations, supported by toxicological monographs, for each of 36 inorganic constituents and physical parameters, 27 industrial chemicals, 36 pesticides, four disinfectants and some 23 disinfectant by-products.

The final part explains application of the reference level of dose for radiological contaminants in drinking-water. ◆

Available from the Office of Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland.

Asbestos in drinking-water: no health hazard

While inhaled asbestos is a known carcinogen, there is no evidence that asbestos has any adverse effect on human health when ingested with drinking-water at current levels. Volume 2 of the Guidelines for Drinking-Water Quality points out that chemical substances can produce very different effects on health depending on the form of exposure. In the case of asbestos, experimental and epidemiological data indicate that there is "no consistent evidence that ingested asbestos is hazardous to health", and it has thus been concluded that there is "no need to establish a health-based guideline value for asbestos in drinking-water".

This is a timely response to the anxiety aroused by the use of asbestos-cement pipes for the distribution of drinking-water. On account of the bad reputation of asbestos, anxiety has been expressed in certain quarters that it might be dangerous to drink water which has spent some time in such pipes. While asbestos is known to present a very significant danger to health, this is because the microscopic fibres of which it is formed, when inhaled, cause disease such as asbestosis or various cancers, particularly in the bronchi, pleurae and peritoneum.

No comparable effect has ever been observed after ingestion of asbestos, and this has led experts to believe that there is no need to establish guidelines for its presence in drinking-water. It is of course conceivable that there might be a risk associated with the release of asbestos fibres into the atmosphere from tap water during the use of showers or humidifiers. However, all the studies have shown that the amount of released asbestos is negligible.

Generally speaking, in areas where asbestos-cement piping is used for water distribution, as in some parts of the USA, Canada and the United Kingdom in particular, the water contains an amount of asbestos fibres which is not significantly higher than the amount due to natural erosion processes.

Swallowing is obviously not the same thing is breathing, and while the Guidelines conclude that the presence of asbestos in asbestos-cement water pipes presents no danger to the health of consumers, the fact remains that there is a danger during the manufacture of these pipes. Steps must therefore be taken to protect the health of workers in the pipe-making industry as is done for asbestos miners and other asbestos workers.

Allergies and asthma

The prevalence of allergies, especially of the skin and respiratory tract, but also food "allergies", appears to be increasing.

Skin allergies (contact dermatitis) are a cause of morbidity and a major cause of lost working time in industry. Respiratory tract allergies range from uncomfortable rhinitis, seasonal due to pollens or chronic, to allergic asthma which can impair childhood development and is potentially life-threatening. Attention has focused on childhood asthma and its prevalence is now being studied systematically in a number of countries around the world.

In examining the health impacts of respiratory tract allergy, it is important to distinguish allergic asthma from other forms of bronchial hyperreactivity and this is an important feature in well-controlled international studies of asthma prevalence.

Atmospheric pollution

Environmental pollution, particularly atmospheric pollution, has been advanced as a major factor in the induction of respiratory allergies and increasing prevalence. The hypotheses advanced are that chemical components of atmospheric pollution may reduce allergen clearance from mucosal surfaces, enhance mucosal penetration by allergens, cause the release of mediators enhancing inflammatory reaction, and have other adjuvant-like effects enhancing allergic hypersensitization.

However, well-controlled studies of respiratory hypersensitivity in some countries with differing levels of environmental pollution - Sweden and western Germany compared with Poland, Estonia and eastern Germany - have not demonstrated a clear relationship between higher levels of pollution and the prevalence of respiratory allergy.

In Sweden and western Germany there is a higher prevalence of respiratory allergy despite lower levels of environmental pollution than the other countries. However, bronchial hyperreactivity and respiratory tract infections are significantly higher in eastern Europe and this may be related to environment and "life-style". In eastern Europe relevant factors are general immunization at an early age and early entry to day nurseries because mothers have returned to work.

Risk factors

Identified risk factors for development of allergic disease are a family history, maternal tobacco smoking, humidity of indoor air, house dust (including bacterial breakdown products, mites, moulds, pet dander), and urban living with proximity to roads with high traffic density. Family size and childhood infections are also factors that influence allergic hypersensitization. Within a family the prevalence of allergy declines in the younger family members.

The indoor environment, age and family "life-style" are thus important in inducing respiratory and other forms of allergic hypersensitization and the appearance of allergic diseases. With the progressive convergence of "life-style" and pollution levels in western and eastern European countries it will be interesting to see if the prevalence and pattern of allergies becomes similar.

IPCS is pursuing the subject of allergic hypersensitization through scientific workshops on aspects of allergic disease and the preparation of an Environmental Health Criteria monograph which will be circulated as a first draft later this year. ◆

Further information on this subject may be obtained from Dr E.M. Smith, IPCS (Fax: 4122-7914848; E-mail: smithe@who.ch).

IPCS welcomes Peter Toft

The most recent addition to the IPCS team is Dr Peter Toft, who became the Associate Director in January. Dr Toft obtained his Bachelor's, Master's and Doctorate degrees in chemistry at the University of Oxford in the United Kingdom from which he graduated in 1966.

From there he moved to Canada, and joined the Department of National Health and Welfare in 1967 as a research scientist. During the period 1974 to 1995 he was successively Head, Pharmacodynamics Section, Chief, Monitoring and Criteria Division and Director, Bureau of Chemical Hazards.

Dr Toft has been a member, chairman and consultant to a range of national and international committees concerned with environmental health issues. He served as a member of the Board of Directors of the Canadian Network of Toxicology Centres. He is no stranger to international organizations; he chaired the consultation in 1986 which initiated the project on International Chemical Safety Cards and in 1992 chaired the committee which revised the World Health Organization Guidelines for Drinking-Water Quality. He has represented Canada at the OECD Chemicals Group and on the Governing Council of the International Agency for Research on Cancer.

Dr Toft is a Fellow of the Royal Society of Chemistry and of the Chemical Institute of Canada. He has published many papers in the scientific literature and has been an invited speaker at many national and international conferences.

Dr Toft has come to Geneva with his wife; they have three children in Canada from whom they hope to have frequent visits. ◆

Translation of International Chemical Safety Cards

There now exist International Chemical Safety Cards on over 1200 chemicals, each Card summarizing the health and safety information on a particular chemical for individuals at the workplace. From the outset of this project, it was realized that the Cards would have only limited value unless they were translated into a wide range of languages.

Cards in Chinese: Cards in Kiswahili

The translation effort seemed at first to be overwhelming. However, the approach that was eventually adopted for most of the Cards has resulted in a much more manageable task. It relies on the fact that the Cards have a very consistent format and employ a limited number of "standard phrases". The phrases on each Card are chosen on the basis of criteria laid down in a Compiler's Guide. These criteria relate the phrases to the chemical, physical and biological properties of the chemical in question.

The Cards are compiled with the aid of a computer programme developed by the National Institute for Occupational Safety and Health (NIOSH), USA. The programme allows both compiling and translation of the Cards by using the numbered Standard phrase subfile of each Card. This programme contains the translated Standard phrases in languages which comply with ASCII character standard. Languages with special characters require a connecting interface. Such an interface was used in the translation of the Cards into Japanese.

Varying numbers of Cards have so far been translated into Arabic, Chinese, Czech, Finnish, French, Danish, German, Indonesian, Italian, Japanese, Bahasa Malaysia, Polish, Russian, Spanish, Kiswahili and Urdu.

For a few languages the translation has been carried out manually, translating each Card phrase by phrase. However, it is much better, whenever possible, to translate the standard phrases first and then use the computer programme to translate each Card. This method has the advantage over the manual version of greater accuracy and consistency.

The Cards project has been carried out cooperatively by the IPCS and the Commission of the European Union, who jointly hold the copyright. Translated cards are generally disseminated by the translating institute. Some of the Cards in Japanese (around 250) are available via Internet. There is an International Chemical Safety Cards WWW Home Page on Internet (http://turva.me.tut.fi/cis/home.html).

Most of the Cards are also available on CD-ROM. Cards in English can be found on the IPCS INCHEM compact disc, and those in Finnish are available from the Institute of Occupational Health, Topeliuksen Katu 41 aA, 00250 Helsinki, Finland. ◆

Further information on translation of the Cards can be obtained from Mrs S. Takala, IPCS (Fax: 4122-7914848; E-mail: Takalas@who.ch).

Pollution Release and Transfer

(Continued from page 3)

each of these projects "reinvented the wheel". For this reason several countries and international organizations are offering a set of relevant services, e.g., the organization of regional workshops to provide basic skills for developing PRTRs (see box).

Hopes for the future

Traditional methods for obtaining data on emissions are no longer adequate. Providing the tools for designing and implementing PRTR systems will not only strengthen national capabilities to control toxic chemicals but will constitute a significant step forward in environmental management and in improving human well-being.

Interest in sound environmental management is a global concern and should transcend national boundaries. The PRTR concept represents a long-term means of achieving environmental objectives for sustainable development. ◆

IRPTC has established a PRTR Home Page on Internet: http://IRPTC.UNEP.CH/prtr/

IPCS chemical safety information service

An electronic mail information service has been set up to allow *anyone*, from government minister to member of the general public, to obtain information not only from IPCS publications but on *any* aspect of chemical safety. So if you have a query about any chemical that you think may be hazardous, send an E-mail message to the IPCS using the following Internet address: ipcsmail@who.ch

Since the information you require may only be available in printed (not electronic) form, you should supply your postal address as well as your E-mail one. ◆

Recent publications

Environmental Health Criteria

165 Inorganic lead
169 Linear alkylbenzene sulfonates
176 1,2-Dichloroethane
177 1,2-Dibromoethane
178 Methomyl
179 Morpholine

Health and Safety Guides

98 Chlorothalonil
99 Diflubenzuron
100 Cresols
101 Hydroquinone

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Evaluation of certain food additives and contaminants. Report of the 44th meeting of the Joint FAO/WHO Expert Committee on Food Additives. WHO Technical Report Series No. 859, 1995.

Toxicological evaluation of certain food additives and contaminants. Prepared by the 44th meeting of the Joint FAO/WHO Expert Committee on Food Additives. WHO Food Additives Series No. 35, 1996.

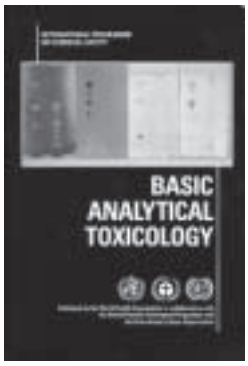
Toxicological evaluation of certain veterinary drug residues in food. Prepared by the 45th meeting of the Joint FAO/WHO Expert Committee on Food Additives. WHO Food Additives Series No. 36, 1996.

Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Pesticide Residues in Food - 1995. Report of the Joint Meeting of the FAO Panel of Experts on Pesticide Residues in Food and the Environment and the WHO Core Assessment Group. FAO Plant Production and Protection Paper No. 133, 1996.

Other publications

Basic analytical toxicology. World Health Organization (ISBN 92 4 154458 9).



Guidelines for drinking-water quality. Second edition. Volume 2: Health criteria and other supporting information, World Health Organization (ISBN 92 4 154480 5).

These publications are all available from the Office of Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland.

Forthcoming Meetings

2-5 June 1996
Working Group on Natural Toxins of Marine Origin,
Marseille, France

4-13 June 1996
47th Meeting of the Joint FAO/WHO Expert Committee on Food Additives (JECFA),
Rome, Italy

24-28 June 1996
Task Group Meeting on Environmental Health Criteria for Copper,
Brisbane, Australia

1-6 July 1996
Task Group Meeting on Environmental Health Criteria for Chrysotile Asbestos,
Geneva, Switzerland

2-6 September 1996
9th Meeting of the Poison Centre Working Group (INTOX 9),
Cardiff, Wales

16-25 September 1996
1996 Joint FAO/WHO Meeting on Pesticide Residues (JMPR),
Rome, Italy

14-16 October 1996
IPCS Working Group on Poisoning Prevention Guidelines,
Brussels, Belgium

23-25 October 1996
8th Meeting of the Programme Advisory Committee
Washington DC, USA

It should be noted that these meetings are being attended by specifically invited experts only.

IPCS Home Page on Internet

The IPCS has now established a World Wide Web Home Page on Internet. In an introduction to the Programme, the history, roles and organizational structure are given. The following IPCS activities have been listed:

- Evaluation of chemical risks to human health and the environment
- Methodologies for evaluation of hazards and risks
- Prevention and management of toxic exposures and chemical emergencies
- Chemical risk communication
- Human resources development

A section on publications and documents lists all the volumes in all the major IPCS series. It also gives the titles of other publications on activities undertaken or supported by the IPCS. Addresses for obtaining these publications are included.

There is also a cross-reference to IPCS Gopher services, where copies of past issues of IPCS News and the summaries of recent Environmental Health Criteria (EHC) monographs can be found. It is intended to expand the IPCS WWW site to include the summaries of all EHC monographs.

The Internet address for the IPCS Home Page is: http://www.who.ch/programmes/pcs/pcs_home.htm

Forthcoming publications

Environmental Health Criteria

164 Methylene chloride
171 Diesel fuel and exhaust emissions
180 Immunotoxicity
181 Chlorinated paraffins
182 Thallium
183 Chlorothalonil
184 Diflubenzuron
185 Chlorendic acid and anhydride
186 Ethylbenzene
187 White spirit (Stoddard solvent)

Health and Safety Guides

Users' Manual for the IPCS Health and Safety Guides

Joint FAO/WHO Expert Committee on Food Additives (JECFA)

Evaluation of certain veterinary drug residues in food. 45th report of the Joint FAO/WHO Expert Committee on Food Additives. WHO Technical Report Series.

Toxicological evaluation of certain food additives and contaminants. Prepared by the 46th meeting of the Joint FAO/WHO Expert Committee on Food Additives. WHO Food Additives Series No. 37.

Joint FAO/WHO Meeting on Pesticide Residues (JMPR)

Pesticide residues in Food – 1995 evaluations. Part II – Toxicology. World Health Organization.

Health and Safety Guides
10th anniversary special offer

The IPCS Health and Safety Guides are slim volumes of around 30 pages each, and give, for each chemical evaluated, basic information on the properties of the chemical and the implications, for both human health and the environment, of exposure to it. There are also sections on first-aid treatment and fire hazards and recommendations for storage, transport and handling spillages.

The first Guide was issued ten years ago. To mark this tenth anniversary and also the fact that the hundredth Guide has just appeared, the IPCS is offering a limited number of *free* packs (Sw. fr. 75 in developed countries), each one comprising the first hundred Guides in the series. The normal cost would be 500 swiss francs.

To obtain one of these packs, all you have to do is to submit a short article (between 200 and 750 words) on any aspect of chemical safety. This could be a personal experience, an account of some scientific study with which you are familiar, a description of a problem in your country, the situation with respect to one particular chemical, or a comment on an article that has recently appeared in IPCS News. The article should be written in an interesting, entertaining style, and if you can supply a relevant illustration or photo, so much the better.

The best submissions will be printed in a future issue of *IPCS News*, but all who submit articles will be sent the free (or reduced price) pack of Guides. An order form has been inserted in this newsletter; you should complete it and send it with your article to the Office of Distribution and Sales, World Health Organization, 1211 Geneva 27, Switzerland. ◆

The Users' Manual for the IPCS Health and Safety Guides *will be available from the above address in July 1996 (Order no. 1150441; price Sw. fr. 22 in developed countries, Sw. Fr. 15.40 in developing countries).*

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