

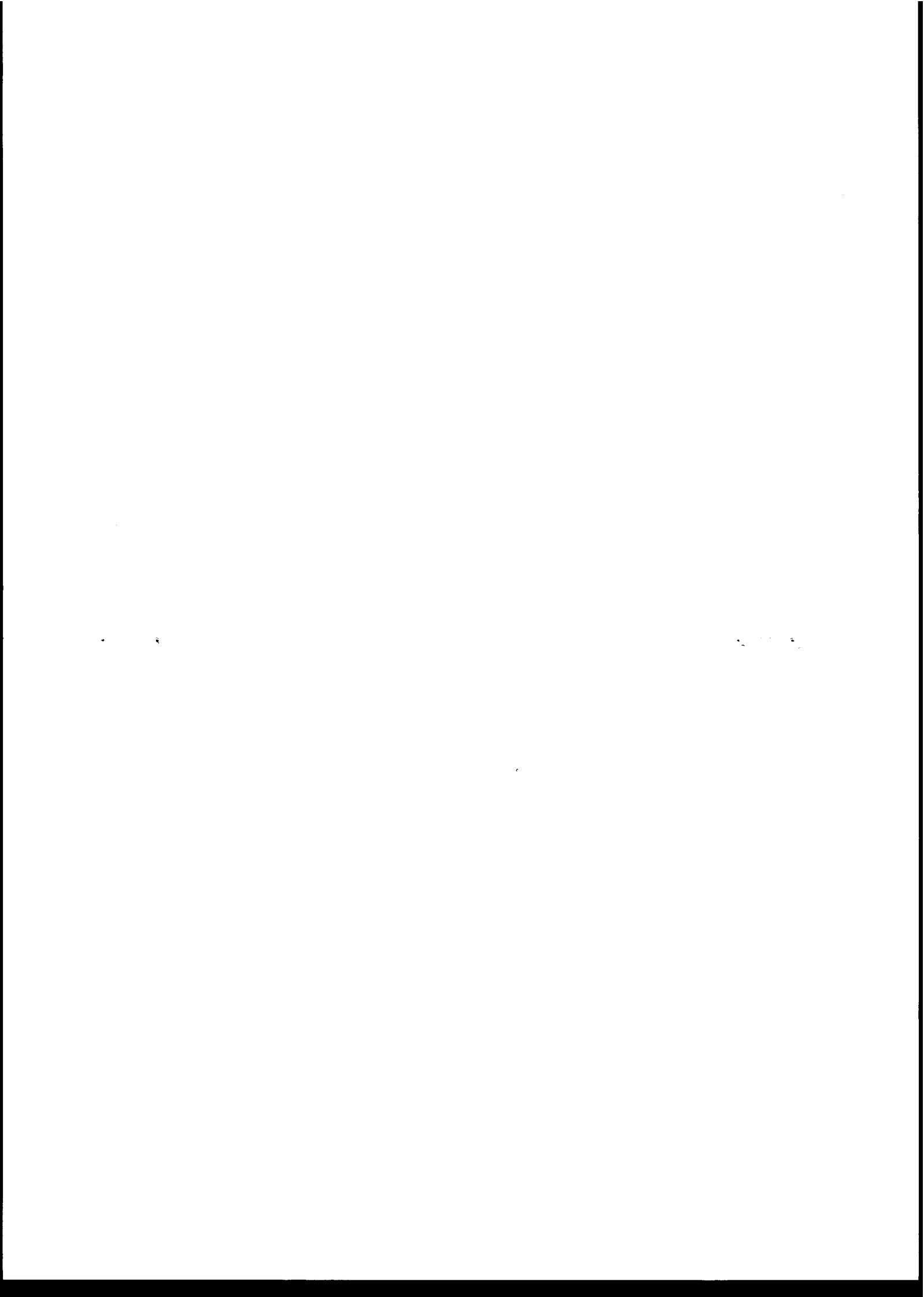
CTD/WHOPES/98.5
Distr. : LIMITED
ENGLISH ONLY

Guidelines for the purchase of pesticides for use in Public Health



**WHO Pesticide Evaluation Scheme (WHOPES)
Division of Control of Tropical Diseases
World Health Organization**

www.who.ch/ctd



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- **Farm Chemicals Handbook**, Meister Publishing Co. USA
- **International Pesticide Directory**, McDonald Publications of London, UK

Use pesticides judiciously and integrate with environmental management and biological control

7. WHO Collaborating Centres for quality control of pesticides

- Centro de Investigaciones de Plagas e Insecticidas (CIPEIN), Buenos Aires, Argentina (designation in process)
- Department de Phytopharmacie, Gembloux, Belgium
- Hussein Ebrahim Jamal Research Institute of Chemistry, Karachi, Pakistan

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the Member State and NGO's in official relation with WHO. This service is also available to UN sister organizations.

The WHO representative offices in most of the developing countries and the supply units at the WHO Regional Offices in Alexandria, Copenhagen, Harare, New Delhi, Manila and Washington can provide further details on how order through the WHO supply service. You may also wish to contact:

Chief, Supply Services
World Health Organization

20, Avenue Appia

CH-1211 Geneva 27, Switzerland

Tel: +41 22 791 2801

Fax: +41 22 791 4196

6. Directories/references for pesticide supply sourcing

The following publications provide useful information and details on pesticides and their manufacturers, formulators, agents, etc.:

- **The Pesticide Index**, The Royal Society of Chemistry, UK
- **CRC Handbook of Pesticides**, CRC Press, USA

Introduction

Choosing a pesticide product for public health usage is becoming increasingly difficult for non-specialists in Ministries of Health, Aid Organizations, NGO's, etc.

Pesticide products are today highly developed and formulated for a particular use pattern and therefore usage in areas outside the label indications will often result in poor performance and/or may be hazardous.

The proliferation of active ingredients and formulations can be very confusing and therefore it is easy to select an inappropriate pesticide or formulation for the task intended. In addition, it is possible to select a pesticide that is poorly manufactured and formulated.

The selection of the wrong product or formulation can result in wastage of large sums of money and operational failure.

This leaflet is intended to guide you through the following steps:

- Choosing an appropriate pesticide/formulation to control the target pest

- Choosing a good quality product in conformity to specifications
- Preparing tenders for supply of the required product
- Checking that the product tendered is the product supplied
- Supply services to WHO Member States and pesticide supply sourcing

1. Choosing an appropriate pesticide/formulation

In selecting a pesticide and the appropriate formulation, consideration should be given to the biological effectiveness against the pest concerned, the susceptibility status of the target organism, the method of application, its safety to humans and to the environment, toxicity to non-target organisms, management of pesticide resistance, shelf life and its cost.

The determination of cost should be based on the expense of the material as applied and not strictly upon the purchase price of the chemical. This includes the consideration of the amount of active ingredient in the formulation, cost of shipment and handling (including local transport), dosage of application as well as duration of residual effect, and hence, round(s) and cost of application per year.

The World Health Organization has within the Division of Control of Tropical Diseases (CTD) a Unit dedicated to the evaluation of pesticides for public health usage. The Unit provides guidance to national health authorities, national and international organizations involved in vector and pest control through the issue of specifications or on occasions by direct advice. The Unit also offers assistance to national vector and pest control programmes on quality control of pesticides which are carried out on their behalf at WHO designated Collaborating Centre(s).

For further information/assistance contact:

WHO Pesticide Evaluation Scheme (WHOPEs)
Division of Control of Tropical Diseases (CTD)
World Health Organization
20, Avenue Appia
CH-1211 Geneva 27
Switzerland
Tel: (+41 22) 791 3841
Fax: (+41 22) 791 4777

5. Supply services to WHO Member States

The supplies services are available to the National programmes & projects and Agencies under the jurisdiction of the Health Administration or comparable Authority of

the requirements of the specification and the purchase order;

- any special requirements that the purchaser may have (e.g. long term storage). This will guide the manufacturer in the preparation of a satisfactory product.
- Data on efficacy trials, using the same product.

One of the conditions for supply of pesticides should be "all products offered must conform to WHO specifications reference SIF /...". This should exclude suppliers who cannot guarantee quality.

It can be made a pre-condition that companies wishing to tender, supply a sample of the product, accompanied with an official certificate of analysis, ahead of the tender. This can be independently checked to see if the product conforms to the specifications.

4. Checking product on delivery

When the product is delivered, it is wise to take random samples from several containers. These can be sent again to independent analysts and formulators to check if the delivered product also conforms to the specifications. This should not be limited to the amount of active ingredient, but to all physical and chemical properties of the product.

There are many good publications which will advise you on choice of pesticides and formulation, but a very useful one is the WHO publication (WHO/CTD/WHOPE/97.2) "*Chemical Methods for The Control Of Vectors and Pests of Public Health Importance*", revised in 1997¹.

From this book you will be able to select the most appropriate active ingredients and formulations for the target pest and intended application.

2. Choosing a good quality product

It is not appreciated by many purchasers that products may not have the claimed level of active ingredient in them, due to poor manufacturing processes.

Even if the product has the correct level of active ingredient, it may be poorly formulated, which can adversely affect the performance.

This is the point at which many purchasing departments make mistakes since having chosen to buy a particular active ingredient, they then select the cheapest product offered which contains it. The result can be tonnes of

¹ Can be obtained on request from the Division of Control of Tropical Diseases, World Health Organization, 1211 Geneva 27, Switzerland

product which suspends badly when diluted, blocks sprayers and gives very erratic biological performance.

Therefore the choice of a poor quality product results in the waste of large amounts of either Government or any other agency funds, in addition there may be serious safety and/or ecological consequences.

The WHO reference books¹ "*Specifications for Pesticides Used in Public Health* (WHO/CTD/WHOPE/97.1)", and "*Interim specifications for pesticides used in public health* (WHO/CTD/WHOPE/97.7)" contains the specifications for pesticide products which have been submitted by industry and passed the WHO Pesticide Evaluation Scheme (WHOPE). Within these books the exact tolerances allowed for a certain active ingredients and their exact formulation specifications are provided.

The WHO specifications for pesticides used in public health are prepared in accordance with the International Code of Conduct and are now also available on WHO/CTD home page on internet, at <http://www.WHO.CH/CTD>.

Hence, for products for which WHO specifications have been developed, purchasers should ask suppliers or manufacturers if the product they are offering conforms to

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WHO specification SIF/... (check for specification number). If unwilling to guarantee conformity and compliance to these specifications, they should be rejected.

It is also important to ask the supplier what after sale service is offered (e.g. technical advice, training and return policy in case of failed performance). Such additional services give added value which the purchaser may consider when selecting a supplier.

3. Preparing a tender for purchase of pesticide

For obtaining supplies of pesticides, state in the request for tender(bids) or in the purchasing order:

- the name of the pesticide, and its type of formulation,
- The WHO specification number (where available);
- the concentration of active ingredient required;
- the type of packaging required (e.g. conformity with UN packaging specifications) and the kind of labeling, including language;
- the inspection and sampling to be made after completion of the order but before its acceptance;
- the name of the inspection agent and/or laboratory responsible for determining whether the pesticide meets all