

SAMPLING PROCEDURES

Method WHO/M/1.R1
Revised 10 December 1999

1. Sampling by the purchaser

1.1 Sampling of solids (other than wettable powders)

The purchaser or his agent should collect composite samples to be tested for complete compliance with the requirements of the specification. A composite sample should represent not more than 20 000 kg of the material and should be prepared by thoroughly mixing 200 g samples taken from not less than 10 individual batches representing not more than 2 000 kg each. The product may be sampled with either a slotted tube sampler or a scoop; the tube sampler is preferable. The 200 g samples should be combined and thoroughly mixed. The mixture should be repeatedly quartered and mixed until a composite sample of 200-500 g depending on the product is obtained. The quartering may be done on a oil cloth or with a riffle sample divider. The composite sample should be placed in a sealed container with appropriate identification and sent to the laboratory for analysis.

1.2 Sampling of wettable powders

As a general rule, a composite sample reflects the quality of its constituent individual samples. However, in the case of water-dispersible powders, it has been observed that the suspensibility of a composite sample may be satisfactory even when this includes several samples of low suspensibility. For this reason the following sampling procedure should be used for water-dispersible powders.

The purchaser or his agent should collect a 500 g sample of powder from each batch or grind offered by the manufacturer, each sample representing not more than 5 000 kg of product. The samples should be taken at random from containers filled with the product to be transported. Samples may be taken with a scoop or a slotted tube sampler, but the latter is preferable. Each batch sample should be thoroughly mixed and 150 to 250 g depending on the product of it transferred to a sealed container with appropriate identification and sent to the laboratory for analysis.

All batch samples should be subjected to the determination of active ingredient content, to the sieving test and to the suspensibility test in WHO standard hard water after heat stability treatment, as directed in the appropriate specification.

However, the test for active ingredient content, the suspensibility test in WHO standard soft water without pre-treatment, and the tests for acidity or alkalinity need be performed on only one sample from each 25 000 kg lot representing consecutive production. If any sample from a given 25 000 kg lot fails to meet any of these

requirements, then all samples from that lot should be tested for compliance with the requirement(s) that the initial sample failed to meet.

1.3 Sampling of liquids (other than suspension concentrates)

In the case of liquids, samples may be taken from bulk storage or shipping containers. In either case, the purchaser should take a minimum of one sample from each batch. If the size of the batch exceeds 10 000 liters, at least one sample should be taken from each 10 000 litres.

Samples may be taken by means of a liquid sieve sample or similar device that permits the operator to collect a sample from any level of the tank or drum. Half a litre of each sample should be transferred to a sealed container with appropriate identification and sent to the laboratory for analysis.

1.4 Sampling of suspension concentrates

Follow the sampling procedure for liquids but, before sampling to verify the formulation quality, inspect the commercial container carefully. On standing, suspension concentrates usually develop a concentration gradient from the top to the bottom of the container. This may even result in the appearance of a clear liquid on the top and/or of sediment on the bottom. Therefore, before sampling, homogenize the formulation according to the instructions given by the manufacturer or, in the absence of such instructions, by gentle shaking of the commercial container (for example by inverting the closed container several times). Large containers must be opened and stirred adequately. After this procedure, the container should not contain a sticky layer of non-dispersed matter at the bottom. A suitable and simple method of checking for a non-dispersed sticky layer "cake" is by probing with a glass rod or similar device adapted to the size and shape of the container. All the physical and chemical tests must be carried out on a laboratory sample taken after the recommended homogenization procedure.

2. Sampling by the manufacturer

The manufacturer should take a production control sample from each batch of material produced for the purchaser. The size of a batch represented by a given sample should not exceed the limits defined in section 1. The manufacturer should conduct whatever test are necessary on each batch sample to ensure that all requirements of the specification are met. In no case should the manufacturer offer to the purchaser as part of a consignment any batch that does not meet the requirements of the specification. The manufacturer should follow the same procedures for the collection of batch samples as those given in section 1. All batch samples should be retained until final acceptance of the order by the purchaser. Records of tests made on the manufacturer's batch samples should be maintained for at least one year and should be made available to the purchaser on request.