



TECHNICAL DIPHACINONE
2-diphenylacetyl-1,3-indanione

Interim Specification: WHO/IS/5.0000-1
Issued: March 1968

1. SPECIFICATIONS

1.1 Material

The material shall comprise essentially 2-diphenylacetyl-1,3-indandione and shall be a yellow crystalline powder free from any lumps, extraneous impurities, added modifying agents or odours which may limit its suitability for baiting rodents or impair its effectiveness.

1.2 Chemical and physical requirements

The material samples from any part of the consignment shall comply with the requirements of section 1.1 and with the following requirements:

	<u>Minimum</u>	<u>Maximum</u>
2-diphenylacetyl-1,3-indandione content (section 2.1), % by weight	98.0	
Melting point (Method WHO/M/5)	145.0°	
Loss on drying (section 2.2), % by weight		1.0

1.3 Packing and marking of packages

The technical diphasinone shall be packed in suitable, clean containers, as specified in the order.

All packages shall bear, durably and legibly marked on the container, the following:

Manufacturer's name;

Technical diphasinone to Interim Specification WHO/IS/5.0000-1;

Batch or reference number, and date of test;

Net weight of contents;

and the following minimum cautionary notice:

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"Keep this material and baits containing it well away from children, domestic animals, foodstuffs, empty foodstuff containers, and animal feed."

"In cases of poisoning, the specific antidote, vitamin K: (sub-figure one) should be administered. Blood transfusions may be necessary."

2. METHODS FOR DETERMINATION OF CHEMICAL PROPERTIES

2.1 2-diphenylacetyl-1,3-indandione

2.1.1 Special apparatus

A suitable spectrophotometer with 1-cm quartz cells.

2.1.2 Special reagents

Prepare 0.005 N ethanolic sulfuric acid with 50 ml of 0.1 N sulfuric acid and 950 ml of 95 per cent. ethyl alcohol.

2.1.3 Procedure

Weigh accurately about 0.25 g of the sample and transfer to a 250-ml volumetric flask with about 150 ml of 0.005 N ethanolic sulfuric acid, dilute to volume with the ethanolic sulfuric acid and mix thoroughly. Transfer a 10-ml aliquot to a 200-ml volumetric flask, dilute to volume with the ethanolic sulfuric acid and mix well.

Determine the absorbance of this solution in a 1-cm quartz cell at 289 m μ with the spectrophotometer, using the 0.005 N ethanolic sulfuric acid as a blank.

2.1.4 Calculation

2-diphenylacetyl-1,3-indandione content (% w/w)

$$= \frac{E \times 0.0558}{w}$$

where E = absorbance at 289 m μ
w = weight (g) of sample

2.2 Loss on drying

Accurately weigh approximately 2 g of the sample into a dried, tared moisture dish. Dry for 10 hours at atmospheric pressure at a temperature of 100°C, cool in desiccator, and weigh. Calculate the percentage loss in weight.