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भारतीय मानक मसौदा

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(आइ एस 1665 का दूसरा पुनरीक्षण)

Draft Indian Standard

**CUPROUS OXIDE WATER DISPERSIBLE
POWDER CONCENTRATE — SPECIFICATION**

(Second Revision of IS 1665)

ICS No. 65.100.30

Pesticides Sectional Committee, FAD 01

Last Date of Comments: **17 August 2024**

FOREWORD

(Formal clauses would be added later)

Cuprous oxide water dispersible powder concentrate containing varying percentages of cuprous oxide, technical is largely used as fungicides for the control of plant diseases.

This standard was first published in 1960. In 1977, it was first revised to align with the statutory requirement regarding packing and tolerances of copper content approved by the registration committee of Central Insecticides Board (CIB).

In this revision, the standard has been brought out in the latest style and format of the Indian Standards, and references to Indian Standards wherever applicable have been updated.

In the preparation of this standard, due consideration has been given to the provisions of the *Insecticides Act, 1968* and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022. 'Rules for rounding off numerical values (*second revision*)' This number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1 SCOPE

This standard prescribes the requirements and the methods of sampling and test for methods of test for water dispersible powder concentrate carrying varying percentages of cuprous oxide, technical.

2 REFERENCES

The following Indian Standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

<i>IS No.</i>	<i>Title</i>
IS 1070 : 2023	Reagent grade water — Specification (<i>fourth revision</i>)
IS 1506 : 202X	Copper oxychloride dusting powders — Specification (<i>third revision</i>) [<i>Under preparation Doc: FAD 01(25459)</i>]
IS 1682 : 20XX	Cuprous oxide, technical (fungicidal grade) — Specification (<i>second revision</i>) [<i>Under preparation Doc: FAD 01(25532)</i>]
IS 6940 : 1982	Methods of test for pesticides and their formulations (<i>first revision</i>)
IS 8190 (Part 1) : 1988	Requirements for packing of pesticides: Part 1 Solid pesticides (<i>second revision</i>)
IS 10627 : 1983	Methods for sampling of pesticidal formulations

3 REQUIREMENTS

3.1 Description

The material shall be in the form of free flowing powder, devoid of hard lumps and uniform reddish in colour. It shall wet readily on mixing with water providing a suspension suitable for use as a spray.

3.2 Cuprous oxide, technical, employed in the manufacture of cuprous oxide water dispersible powder concentrate shall conform to IS 1682.

3.3 The material shall also comply with the requirements given in Table 1.

Table 1 Requirements of Copper Oxychloride Water Dispersible Powder Concentrate
(*Clause 3.3*)

Sl. No.	Characteristic	Requirements	Method of Test, Ref to
(1)	(2)	(3)	(4)
i)	Copper content, percent by mass	Nominal value as declared on the container (<i>see 3.3.1</i>)	Annex A of IS 1506
ii)	Alkalinity (as Na ₂ CO ₃) percent by mass, <i>Max</i>	1.0	Annex B of IS 1506

iii)	Suspensibility, percent by mass, <i>Min</i> (see Note)	80.0	IS 6940
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3.3.1 Copper Content

When determined by the method prescribed in Annex A of IS 1506, the observed copper content, percent (*m/m*) of any of the samples shall not differ from the declared nominal value by more than tolerance limits indicated below:

<i>Nominal Value, percent</i>	<i>Tolerance limit, percent</i>	
Up to 9	+10 - 5	} of the nominal value
Above 9 and below 50	±5	
50 and above	+5 - 3	

The actual value of copper content shall be calculated to two decimal places and then rounded off to one decimal place before applying the tolerance.

4 PACKING

The material shall be packed as per the relevant provisions given in IS 8190 (Part 1).

5 MARKING

5.1 The containers shall be securely closed and shall bear legibly and indelibly the following information:

- Name of the material;
- Name and address of the manufacturer;
- Batch number;
- Date of manufacture;
- Date of expiry;
- Net quantity;
- Nominal copper content, percent (*m/m*);
- Cautionary notice as worded in the *Insecticides Act*, 1968, and Rules framed thereunder; and
- Any other information required under the *Legal Metrology (Packaged Commodities) Rules*, 2011.

5.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

6 SAMPLING

Representative samples of the material shall be drawn as prescribed in IS 10627.

7 TESTS

Tests shall be carried out by appropriate methods as referred in col (4) of Table 1.

8 QUALITY OF REAGENTS

Unless specified otherwise, pure chemicals and distilled water (*see* IS 1070) shall be employed in tests.

NOTE – ‘Pure chemicals’ shall mean chemicals that do not contain impurities which affect the results of analysis.