

BUREAU OF INDIAN STANDARDS

DRAFT FOR COMMENTS ONLY

(Not to be reproduced without the permission of BIS or used as an Indian Standard)

भारतीय मानक मसौदा

थायोबेनकार्ब इमल्सिफ़िबल कॉन्सेंट्रेट (ईसी) — विशिष्टि
(आइ एस 12769 का पहला पुनरीक्षण)

Draft Indian Standard

THIOBENCARB EMULSIFIABLE CONCENTRATE (EC) — SPECIFICATION

(first revision of IS 12769)

ICS 65.100.20

Pesticides Sectional Committee, FAD 01

Last date of comments: 7 December 2024

FOREWORD

(Formal clauses would be added later)

Thiobencarb emulsifiable concentrate (EC) is generally used as a herbicide in agriculture.

This standard was published in 1989. 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. It also incorporates one amendment issued to the previous version of this standard.

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*)'. The 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 test for thiobencarb emulsifiable concentrate (EC).

2 REFERENCES

The following standards contain provisions which through reference in this text, constitute provisions 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 1448 (Part 20): 2024	Petroleum and its products - Test methods: Part 20 Determination of flash Point - Abel closed - Cup method (<i>fourth revision</i>)
IS 6940 : 202X	Pesticides and their formulations – Test methods (<i>second revision</i>) [<i>Under preparation Doc: FAD 01(25870)WC</i>]
IS 8190 (Part 2): 1988	Requirements for packing of pesticides: Part 2 Liquid pesticides (<i>second revision</i>)
IS 10627: 1983	Methods for sampling of pesticidal formulations
IS 12768: 202X	Thiobencarb, technical — Specification (<i>first revision</i>) [<i>Under preparation Doc: FAD 01(26894)WC</i>]

3 REQUIREMENTS

3.1 Constituents

Thiobencarb, technical employed in the manufacture of this material shall conform to IS 12768.

3.2 Physical

The material shall comply with the physical requirements specified in **3.2.1** to **3.2.4**.

3.2.1 Description

The material shall be a stable liquid, free from sediment. Suspended matter shall be negligible. It shall readily form an emulsion on dilution with water, suitable for spray.

3.2.2 Cold Test

No turbidity or separation of solid or oily matter shall occur when the material is subjected to the cold test at 10° C or any other lower temperature as agreed to between the purchaser and the supplier, as prescribed in IS 6940. Introduction of a seeding crystal is not necessary for the test.

3.2.3 Flash Point (Abel)

When determined by the method prescribed in IS 1448 (Part 20), the flash point of the material shall be above 24.5° C.

3.2.4 Emulsion Stability

Any separation including creaming at the top and sedimentation at the bottom of 100 ml of emulsion prepared in standard hard water with 2.0 ml of concentrate, shall not exceed 2.0 ml when tested by the method prescribed in IS 6940.

3.3 Chemical

The material shall comply with the chemical requirements specified in 3.3.1 and 3.3.2.

3.3.1 Thiobencarb Content

When determined by the method prescribed in Annex A of IS 12768, the observed thiobencarb content, percent (*m/m*), of any of the samples shall not differ from the declared nominal value by more than the percent tolerance limits indicated below:

<i>Nominal Value, Percent</i>	<i>Tolerance, Percent</i>
Up to 9	+10 -5
Above 9 and below 50	± 5
50 and above	+5 -3

} of the nominal value

3.3.1.1 The actual value of thiobencarb content in the formulations shall be calculated to the second decimal place and then rounded off to the first decimal place before applying the tolerances given in 3.3.1.

3.3.1.2 The average thiobencarb content of all samples taken shall not be less than the declared nominal value.

3.3.2 Acidity — When tested by the method prescribed in IS 6940, the acidity (as H₂SO₄) shall be not more than 0.2 percent by mass.

4 PACKING

The material shall be packed in mild steel or tinplate containers, suitably and properly lacquered from inside. In addition, the material shall comply with the general packing requirements as given in IS 8190 (Part 2).

5 MARKING

The container shall bear legibly and indelibly the following information:

- a) Name of the material;
- b) Name and address of the manufacturer;

- c) Batch number;
- d) Date of manufacture;
- e) Date of expiry;
- f) Net quantity;
- g) Nominal thiobencarb content, percent (*m/m*);
- h) Cautionary notice as worded in the *Insecticides Act, 1968*, and Rules framed thereunder; and
- j) Any other information required under the *Legal Metrology (Packaged Commodities) Rules, 2011*.

6 SAMPLING

When freshly manufactured material in bulk quantity is offered for inspection, representative samples of the material shall be drawn and tested as prescribed in IS 10627 within 90 days of its manufacture. When the material is offered for inspection after 90 days of its manufacture, sampling shall be done as prescribed in IS 10627. However, the criteria for conformity of the material when tested, shall be the limits of tolerances, as applicable over the declared nominal value and given under *clause 3.3.1* of the standard.

7 TESTS

7.1 Tests shall be carried out by the appropriate methods referred to in **3.2.1** to **3.2.4**, **3.3.1** and **3.3.2**.

7.2 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.