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Indian Standard

FENOXAPROP-p-ETHYL EMULSIFIABLE CONCENTRATE—SPECIFICATION

ICS 65.100.20

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

October 2002
Price Group 1
FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Pesticides Sectional Committee had been approved by the Food and Agriculture Division Council.

Fenoxaprop-p-ethyl emulsifiable concentrate (EC) is generally used as a selective herbicide in agriculture.

Fenoxaprop-p-ethyl emulsifiable concentrate (EC) is generally manufactured to contain 10 percent m/m of Fenoxaprop-p-ethyl.

In the preparation of this standard due consideration has been given to the provisions of Insecticides Act, 1968 and the rules framed thereunder. However this standard is subjected to restrictions imposed under the Act and rules 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 : 1960 ‘Rules for rounding off numerical values (revised)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.
Indian Standard
FENOXAPROP-\textit{p}-ETHYL EMULSIFIABLE CONCENTRATE — SPECIFICATION

1 SCOPE
This standard prescribes the requirements and the methods of sampling and test for fenoxaprop-\textit{p}-ethyl emulsifiable concentrate.

2 REFERENCES
The following Indian 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:

\begin{center}
\begin{tabular}{|l|l|}
\hline
IS No. & Title \\
\hline
1070:1992 & Reagent grade water \textit{(third revision)} \\
1448 & Methods of test for petroleum and its products: \textit{[P : 20]} Determination of flash point by Abel apparatus \textit{(second revision)} \\
6940:1982 & Methods of test for pesticides and their formulations \textit{(first revision)} \\
8190 & Requirement for packing of pesticides: Part 2 Liquid pesticides \textit{(second revision)} \\
9992:1991 & Round and rectangular tinplate cans for liquid pesticides \textit{(first revision)} \\
10627:1983 & Method for sampling of pesticides formulations \\
13123:2000 & Packing of liquid pesticides — Polyethylene terephthalate (PET) bottles (up to 5 litres capacity) \textit{(first revision)} \\
15232:2002 & Fenoxaprop-\textit{p}-ethyl technical — Specification \\
\hline
\end{tabular}
\end{center}

3 REQUIREMENTS

3.1 Constituents
3.1.1 The material shall consist of fenoxaprop-\textit{p}-ethyl, technical dissolved in suitable solvent(s) together with emulsifying agent(s) and with or without stabilizer(s).
3.1.2 Fenoxaprop-\textit{p}-ethyl, technical, employed in the manufacture of the material, shall conform to IS 15232.

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 light brown coloured liquid, free from sediment and/or suspended matter. 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 as prescribed in 13.1 of IS 6940 or at any other lower temperature as agreed to between the purchaser and the supplier. 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 \textit{[P : 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 emulsion prepared in standard hard water with 2.0 ml of EC, shall not exceed 2.0 ml when tested by the method prescribed in 13.3 of 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 Fenoxaprop-\textit{p}-ethyl Content
When determined by the method prescribed in Annex A of IS 15232, the observed fenoxaprop-\textit{p}-ethyl content of any of the samples shall not differ from the declared nominal value by more than the tolerance limits given below:

\begin{center}
\begin{tabular}{|l|c|c|}
\hline
Nominal Value, Percent & Tolerance Limit, Percent \\
\hline
Up to 9 & +10 \% \hspace{1cm} of the \nominal value \\
Above 9 and below 50 & $\pm 5$ \% \hspace{1cm} \nominal value \\
50 and above & $+5$ \% \\
\hline
\end{tabular}
\end{center}
**3.3.2 Acidity/Alkalinity**

When tested by the method prescribed in 13.5.4 of IS 6940, the acidity (as $\text{H}_2\text{SO}_4$) or alkalinity (as NaOH) of the material shall be not more than 0.5 percent and 0.2 percent by mass respectively.

**4 PACKING**

The material shall be packed in round tin containers (conforming to IS 9992) suitably lacquered from inside or PET containers (conforming to IS 13123) and shall be further packed in corrugated fibre board boxes. The containers shall also meet the general requirements as given in IS 8190 (Part 2).

**5 MARKING**

5.1 The container shall be securely closed and shall bear legibly and indelibly the following information in addition to any other information as required under the Insecticides Act, 1968 and Rules:

- 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 mass of contents;
- g) Nominal value: Fenoxaprop-p-ethyl percent ($\text{m/m}$); and

5.2 BIS Certification Marking

The product may also be marked with the Standard Mark.

5.2.1 The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

**6 SAMPLING**

When freshly manufactured material in bulk quantity and/or the retail pack of the formulated product is/are offered for inspection, representative sample of the material shall be drawn and tested as prescribed in IS 10627 and if tested within 90 days of its date of manufacture, the criteria for conformity shall be the contents in percent ($\text{m/m}$), shall not be less than the declared nominal value. The upper limit for conformity shall be the same as those given in 3.3.1 of this standard.

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 3.3.1 of this standard.

**7 TESTS**

7.1 Tests shall be carried out by the 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.
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This Indian Standard has been developed from Doc: No. FAD 1 (1095).

Amendments Issued Since Publication

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<tr>
<th>Amend No.</th>
<th>Date of Issue</th>
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