
**Pesticides — Diazinon
Part 1:
Technical material (TC)—
Specification**

ICS: 65.100.10

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Foreword

This Ethiopian Standard has been prepared under the direction of the Technical Committee for Pesticides (TC 19) and published by the Ethiopian Standards Agency (ESA).

This standard cancel and replaces the Ethiopian Standard ES 708-1:2002 - Pesticides 'Diazinon part 1: Technical material – specification, with some editorial changes without altering the technical contents in the former text.

In preparing this Ethiopian Standard reference has been made to the following:

- AGP: GP 223:1988, FAO specification for plant protection products," Diazinon technical (with stablizer) FAO specification 15/TG/S (1988)" published by the Food and Agriculture Organization of the United Nations (FAO), Rome.

Acknowledgement is made for the use of information from the above publication.

Pesticides — Diazinon Part 1: Technical material (TC) Specification

1. Scope

This Ethiopian Standard specifies requirements for the technical material of diazinon (with stabilizer) for plant protection purpose.

2. Normative references

The following Ethiopian Standards contain provisions which, through reference in this text, constitute the provisions of this Ethiopian Standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this Ethiopian Standard are encouraged to investigate the possibility of applying the most recent editions of the Ethiopian Standards indicated below. Registers of currently valid standards are maintained in the Ethiopian Standards Agency (ESA).

ES 693, Pesticides - Terminology.

ES 694, Pesticides - Methods of sampling.

ES 695, Pesticides - Packaging.

ES 696, Pesticides - Guideline on good labelling practice.

ES 697, Pesticides - Guidelines for retail distribution storage and handling.

ES 700, Pesticides - Guideline on the disposal of bulk quantities of obsolete pesticides.

ES 720, Pesticides - Determination of diazinon content (Reference method). ES 727, Pesticides - Determination of diazinon content in diazinon technical. ES 737, Pesticides - Determination of material insoluble in acetone.

ES 749, Pesticides - Determination of water content.

ES 750, Pesticides - Determination of free acidity or alkalinity.

WD¹⁾ Pesticides - Determination of O, S-TEPP and S,S - TEPP content in diazinon.

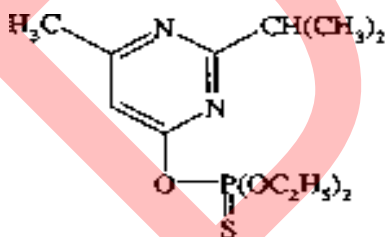
3. Definitions

For the purpose of this Ethiopian Standard terms defined in ES 693 shall apply.

4. General information

COMMON NAME: Diazinon (ISO)

STRUCTURAL FORMULA:



EMPIRICAL FORMULA: $C_{12}H_{21}N_2O_3PS$

RMM: 304.3

CAS REGISTRY NUMBER: [333-41-5]

CIPAC CODE NUMBER: 15

¹⁾ Under preparation

CHEMICAL NAMES:

o, o-diethyl-o-(2-isopropyl-6-methylpyrimidin-4-yl) phosphorothioate (IUPAC)

o,o-diethyl-o-[6-methyl-2-(1-methylethyl)-4-pyrimidinyl]phosphorothioate (CA)

CHEMICAL CATEGORY: Organophosphate

USE CATEGORY: Insecticide

WHO CLASS: ii

5. Requirements

5.1. Description

The material shall consist of diazinon together with related manufacturing impurities and shall be a yellow to brown liquid, free from visible extraneous matter and added modifying agents, other than the stabilizer(s).

5.2. Active ingredient

5.2.1. Identity tests

Where the identity of the active ingredient is in doubt, it shall be determined in accordance with ES 720 and it shall comply with at least one additional test.

5.2.2. Diazinon

The diazinon content shall be declared in g/kg, and when determined in accordance with ES 720 or ES 727, the content obtained shall not differ from that declared by more than ± 25 g (Note 1).

NQTE 1- A stabilizer may be present (maximum 100g/kg) then the diazinon content of the remainder of the material (i.e. excluding the stabilizer) shall be not less than 950 g/kg.

5.3. Impurities

5.3.1. O, S-TEPP

When determined in accordance with WD¹⁾ the Q,S-TEPP content shall not exceed 0.2 g/kg.

NQTE 2 - The IUPAC name is o,o,o',o'-tetraethyl-thiopyrophosphate, in G.A. usage: thiodiphosphoric acid ((HQ)2P(Q)QP(S)(QH)2) tetraethyl ester [645-78-3].

5.3.2. S,S-TEPP

When determined in accordance with WD1), the maximum S,S-TEPP content shall be 2.5 g/kg.

NQTE 3 -The IUPAC name is o,o,o',o'-tetraethyl dithiopyrophosphate; in G.A. usage: thiodiphosphoric acid (((HQ)2P(S)]2Q) tetraethyl ester [3689-24-5]

5.3.3. Water

When determined in accordance with clause 4.1 of ES 749, the maximum water content shall be 0.6 g/kg.

5.3.4. Acetone insolubles

When determined in accordance with ES 737, the maximum acetone insoluble matter shall be 1.5 g/kg.

5.4. Physical properties

5.4.1. Acidity

When determined in accordance with clause 6.1.3 or 6.2.3 of ES 750, the maximum acidity content (calculated as H_2SQ_4) shall be 0.3g/kg, calculated as H_2SQ_4 .

6. Handling

Pesticides shall be handled, stored and distributed in accordance with ES 697.

7. Sampling

Samples shall be taken in accordance with ES 694.

8. Packaging

Products shall be packed in accordance with ES 695.

9. Labeling

Pesticides labeling shall be in accordance with ES 696.

10. Disposal

Disposal of bulk quantities of obsolete pesticides shall be in accordance with ES 700.

Organization and Objectives

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ESA's objectives are:-

- ❖ Develop Ethiopian standards and establish a system that enable to check whether goods and services are in compliance with the required standards,
- ❖ Facilitate the country's technology transfer through the use of standards,
- ❖ Develop national standards for local products and services so as to make them competitive in the international market.

Ethiopian Standards

The Ethiopian Standards are developed by national technical committees which are composed of different stakeholders consisting of educational Institutions, research institutes, government organizations, certification, inspection, and testing organizations, regulatory bodies, consumer association etc. The requirements and/or recommendations contained in Ethiopian Standards are consensus based that reflects the interest of the TC representatives and also of comments received from the public and other sources. Ethiopian Standards are approved by the National Standardization Council and are kept under continuous review after publication and updated regularly to take account of latest scientific and technological changes.

Orders for all Ethiopian Standards, International Standards and ASTM standards, including electronic versions, should be addressed to the Documentation and Publication Team at the Head office and Branch (Liaisons) offices. A catalogue of Ethiopian Standards is also available freely and can be accessed in from our website.

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More Information?

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