

SRI LANKA STANDARD 466 Part 10:1980
UDC 632.95

SPECIFICATION FOR
PLANT PROTECTION PRODUCTS
PART 10 - CAPTAN

BUREAU OF CEYLON STANDARDS

SPECIFICATION FOR PLANT PROTECTION PRODUCTS
PART 10 : CAPTAN

SLS 466:Part 10:1980

Gr.4

Copyright Reserved

BUREAU OF CEYLON STANDARDS
53, Dharmapala Mawatha,
Colombo 3,
Sri Lanka

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This Standard does not purport to include all the necessary provisions of a contract.

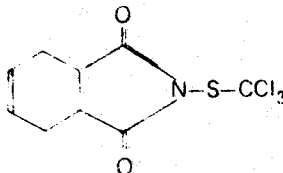
SRI LANKA STANDARD
SPECIFICATION FOR PLANT PROTECTION PRODUCTS
PART 10 : CAPTAN

FOREWORD

This Sri Lanka Standard Specification was authorized for adoption and publication by the Council of the Bureau of Ceylon Standards on 1980-10-31, after the draft, finalised by the Drafting Committee on Pesticides, has been approved by the Agricultural and Chemicals Divisional Committee.

All standard values in this specification are in SI units.

Captan is the accepted common name by the International Organization for Standardization (ISO) for N - (trichloromethyl thio)cyclohex-4-ene 1,2-dicarboximide. The structural formula is,



Wherever possible, standards for apparatus and common names for pesticides are those approved by the ISO.

This standard is based on the FAO Specification on captan.

Methods of analysis and miscellaneous techniques referred to in this part have been given and adopted by Collaborative International Pesticides Analytical Council Ltd. (CIPAC) and are found in CIPAC Handbook Volume 1 (1970) and Volume 1A (1971).

Information on standard waters for laboratory evaluation of pesticidal formulations will be found in CIPAC Monograph 1, standard waters and FAO survey of naturally occurring waters (1972), W. Heffer & Sons Ltd., Cambridge, United Kingdom.

Other essential background information could be obtained from *Manual on the use of FAO Specifications for plant protection products*.

1 SCOPE

This part prescribes requirements and methods of test for captan technical, captan dusts and captan dispersible powders.

WARNING - Captan is toxic. Strict precautions should be taken for the protection of personnel.

SECTION 1 - CAPTAN TECHNICAL

2 DESCRIPTION

The material shall consist, essentially, of technical captan which is an off-white to cream coloured powder, free from extraneous materials and added modifying agents.

3 ACTIVE INGREDIENTS

3.1 Identity (*Method 40/m 1/1.6; see Note 1*)

If required, the identity shall be determined.

3.2 Captan (*See CIPAC I, p. 172, section 1.2, method 40/1/M1.1/1.2, Referee method on p. 174, section 1.2, method 40/1/M1.2; on p. 176, section 1.2, method 40/1/M2/1.2*)

3.2.1 *Minimum content*

Minimum : 90 per cent

3.2.2 *Declared content*

The captan content shall be declared and, when determined the content obtained shall not differ from that declared by more than ± 2 per cent.

4 IMPURITIES

4.1 Perchloromethylmercaptan (*Method 40/1/m/1.5; see Note 1*)

Maximum : Under consideration.

4.2 pH of 1 per cent aqueous dispersion (See CIPAC I, p. 176, section 1.3, method 40/1/M1.2/1.3)

Minimum : 7.0

Maximum : Under consideration.

4.3 Loss on drying (See CIPAC I, p. 174, section 1.4, method 40/1/M11/1.4)

Maximum : 2 per cent

5 PACKAGING AND MARKING

The containers shall comply with the requirements stipulated in SLS Packaging and marking of pesticide containers.

SECTION 2 - CAPTAN DUSTS

6 DESCRIPTION

The product shall consist of a homogeneous mixture containing captan as the only active ingredient, together with suitable carriers and any necessary formulants. It shall be a fine, free-flowing, dustable powder, free from visible extraneous matter and hard aggregates, and shall be white to cream or grey in colour, unless otherwise agreed.

It shall be formulated from captan of quality complying with the specification for *Captan Technical*.

7 ACTIVE INGREDIENT

7.1 Identity (*Method 40/2/m/1.7; see Note 1*)

If required, the identity shall be determined.

7.2 Captan (*See CIPAC I, p. 178, section 1.3, method 40/2/M1/1.3*)

The captan content of the product shall be declared and, when determined, the content obtained shall not differ from that declared by more than ± 10 per cent of the declared content.

8. IMPURITIES

8.1 pH of 1 per cent aqueous dispersion (*See CIPAC 1, p. 174, section 1.3 method 40/1/M1.1/1.3*)

Minimum : 6.5

9 PHYSICAL PROPERTIES

9.1 Flowability (See CIPAC 1, p. 179, section 1.5, method 40/2/M1/1.5)

Maximum flow number : 12

9.2 Dry sieve test (See CIPAC 1, p. 178, section 1.4, method 40/2/M1/1.4)

Minimum : Not less than 95 per cent of the product shall pass through a 75- μ m test sieve.

Not more than $(0.05 \times X)$ per cent of the sample used for the determination shall be present as captan in the residue on the 75- μ m test sieve, where X is the percentage of captan declared under 7.2 (see Note 2).

10 STORAGE STABILITY

10.1 Storage stability (See CIPAC I, p. 170, section 1.6, method 40/2/M1/1.6)

After storage at 54 ± 2 °C for 14 days, the product shall continue to comply with 7.2, 8.1, 9.1 and 9.2.

11 PACKAGING AND MARKING

The containers shall comply with the requirements stipulated in SLS ... Packaging and marking of pesticide containers.

12 BIOLOGICAL PROPERTIES

12.1 Phytotoxicity*

At the present state of our knowledge, no tests can be specified to cover phytotoxicity of formulations to crops.

* For information

When a certain crop is not specifically mentioned in the instructions for use, purchasers should check with the supplier to ensure that the material is suitable, always provided that the proposed use is not restricted or legally forbidden.

SECTION 3 - CAPTAN DISPERSIBLE POWDERS

13 DESCRIPTION

The product shall consist of a homogeneous mixture containing captan as the only active ingredient, together with suitable carriers and any necessary formulants. It shall be a fine powder, free from visible extraneous materials and hard aggregates, and white to cream in colour, unless otherwise agreed.

It shall be formulated from captan of quality complying with the specification for *Captan Technical*.

14 ACTIVE INGREDIENT

14.1 Identity (*Method 40/3/m/1.3; see Note 1*)

If required, the identity shall be determined.

14.2 Captan (*See CIPAC I, p. 181, section 1.3, method 40/3/M1/1.3*)

The captan content of the product shall be declared and, when determined, the content obtained shall not

differ from that declared by more than the following amounts:

Declared content	Permitted tolerance
Up to 40 per cent	± 5 per cent of the declared content
Above 40 per cent	± 2 per cent

15 IMPURITIES

15.1 Perchloromethylmercaptan (*Method 40/3/m/1.11; see Note 1*)

Maximum : Under consideration.

16 PHYSICAL PROPERTIES

16.1 Wet sieve test (*See CIPAC I, p. 181, section 1.4, method 40/3/M1/1.4*)

Minimum : Not less than 98 per cent of the product shall pass through a 75- μ m test sieve.

16.2 pH of 1 per cent aqueous dispersion (*See CIPAC I, p. 182, section 1.8, method 40/3/M1/1.8*)

Minimum : 6.5

16.3 Suspensibility (*See CIPAC I, p. 181, section 1.5, method 40/3/M1/1.5*)

A minimum of 60 per cent of the captan content declared under 14.2 shall be in suspension after 30 min in CIPAC Standard Water A, when determined on the product as received, and in CIPAC Standard Water C, after the heat stability test.

Alternatively, if the buyer requires other CIPAC Standard Waters to be used, he should specify accordingly when ordering.

16.4 Wettability of the product (See CIPAC I, p. 182, section 1.6, method 40/3/M1/1.6)

It shall be completely wetted in 1 minute, without swirling.

16.5 Persistent foam (See CIPAC I, p. 182, section 1.7, method 40/3/M1/1.7)

Maximum : 25 ml of foam after 1 minute.

17 STORAGE STABILITY

17.1 Heat stability (See CIPAC I, p. 183, section 1.9, method 40/3/M1/1.9)

After storage at 54 ± 2 °C for 14 days, the product shall continue to comply with 14.2, 15, 16.2 and 16.4.

18 PACKAGING AND MARKING

The containers shall comply with the requirements stipulated in SLS ... Packaging and marking of pesticide containers.

19 BIOLOGICAL PROPERTIES

19.1 Phytotoxicity*

At the present state of our knowledge, no tests can be specified to cover the phytotoxicity of formulations to crops.

*For information

When a certain crop is not specifically mentioned in the instructions for use, purchasers should check with the supplier to ensure that the material is suitable, always provided that the proposed use is not restricted or legally forbidden.

19.2 Wetting of crops* (See CIPAC I, p. 183, section 1.10, method 40/3/M1/1.10)

The dilute spray shall satisfactorily wet the leaves of the specified crops when used in accordance with the instructions.

However, owing to wide variations in crops and pests, no specific figures can be assigned to wetting of crops but this test may prove useful.

SECTION 4 - SAMPLING AND CRITERIA
FOR CONFORMITY

20 SAMPLING

Representative samples of the material for ascertaining conformity to the requirements of this specification shall be drawn as prescribed in SLS 592 Methods for sampling of pesticidal products.

21 CRITERIA FOR CONFORMITY

The lot shall be considered as conforming to the requirements of this specification if the sample tested as in 20 satisfies all the requirements.

* For information

NOTES

1 Method not included in CIFAC 1 but will appear in 1A. Pending such publication, a copy of the method may be obtained on request from the FAO Secretariat.

2 If the dust contains a declared content of 5 per cent captan and 20 g of sample is used in the test, then the amount of captan in the residue on the sieve should not exceed 0.05 g, i.e.,

$$\frac{(0.05 \times \underline{X}) \times \text{mass of sample}}{100} \text{ g}$$

SLS CERTIFICATION MARK

The Sri Lanka Standards Institution is the owner of the registered certification mark shown below. Beneath the mark, the number of the Sri Lanka Standard relevant to the product is indicated. This mark may be used only by those who have obtained permits under the SLS certification marks scheme. The presence of this mark on or in relation to a product conveys the assurance that they have been produced to comply with the requirements of the relevant Sri Lanka Standard under a well designed system of quality control inspection and testing operated by the manufacturer and supervised by the SLSI which includes surveillance inspection of the factory, testing of both factory and market samples.

Further particulars of the terms and conditions of the permit may be obtained from the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.



SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

The development and formulation of National Standards is carried out by Technical Experts and representatives of other interest groups, assisted by the permanent officers of the Institution. These Technical Committees are appointed under the purview of the Sectoral Committees which in turn are appointed by the Council. The Sectoral Committees give the final Technical approval for the Draft National Standards prior to the approval by the Council of the SLSI.

All members of the Technical and Sectoral Committees render their services in an honorary capacity. In this process the Institution endeavours to ensure adequate representation of all view points.

In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.