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मानक

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IS 2443 (2008): Spices and Condiments - Coriander, Whole and Ground [FAD 9: Spices and Condiments]



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“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

मसाले एवं मसाले — धनिया, साबुत और पिसा हुआ — विशिष्टि
(तीसरा पुनरीक्षण)

Indian Standard

SPICES AND CONDIMENTS — CORIANDER, WHOLE
AND GROUND — SPECIFICATION
(*Third Revision*)

ICS 67.220.10

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Spices and Condiments Sectional Committee had been approved by the Food and Agriculture Division Council.

Spices and condiments are in common use in this country and are also exported. Coriander (*Dhania*) is one of the important spices used in the Indian dietary. It is marketed as whole as well as in powder form. This revised standard specifies quality requirements for both the forms.

Originally two separate Indian Standards, IS 2443 and IS 2444 were issued on coriander whole and coriander powder respectively in 1963. IS 2444 was revised in 1980 for updating it for moisture content and volatile oil content. Later the two standards were amalgamated into a single standard for easy reference in 1994. Consequently, IS 2444 : 1980 was withdrawn as the contents of the same were included in the second revision of IS 2443 in 1994. This third revision is being brought about to update and align the requirements of coriander, whole and ground with ISO Standard on the subject, ISO 2255 : 1996 'Coriander (*Coriander sativum* L.) whole or ground (powdered) — Specification' and *Prevention of Food Adulteration Rules, 1955*. Due consideration has also been given to the *Standard of Weights & Measures (Packaged Commodities) Rules, 1977*. However, this standard is subject to restrictions imposed under both the 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

**SPICES AND CONDIMENTS — CORIANDER, WHOLE
AND GROUND — SPECIFICATION**

(Third Revision)

1 SCOPE

This standard prescribes the requirements and methods of test and sampling for coriander (*Coriandrum sativum* L.) (*Dhania*), whole and ground.

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>
460 (Part 1): 1985	Specification for test sieves : Part 1 Wire cloth test sieves (<i>third revision</i>)
1260 (Part 2): 1979	Pictorial marking for handling and labelling of goods: Part 2 General goods (<i>third revision</i>)
1797: 1985	Methods of test for spices and condiments (<i>second revision</i>)
5887 (Part 3): 1999	Methods for detection of bacteria responsible for food poisoning: Part 3 General guidance on methods for the detection of <i>salmonella</i> (<i>second revision</i>)
13145: 1993	Spices and condiments — Methods of sampling (<i>first revision</i>)
14216: 1994	Code for hygienic practice for spices and condiments processing units

3 REQUIREMENTS**3.1 Coriander, Whole****3.1.1 Description**

Coriander, whole, shall be dried mature fruits of

Coriandrum sativum L. The colour shall be natural to coriander seeds and it may range from yellowish brown to grey. Grading of the material is done on the basis of proportion of extraneous matter; split fruits; damaged, discoloured and weevilled fruits; shrivelled and immature fruits; and admixture of fruits of coriander of varieties other than the variety supplied. The product shall be free from added colours.

3.1.2 Taste and Flavour

The taste and flavour of coriander, whole shall have the characteristic pleasant taste and aroma. The material shall be free from musty odour.

3.1.3 Freedom from Moulds, Insects, Etc

The coriander, whole, shall be free from visible moulds and insects.

3.1.4 Extraneous Matter

The proportion of extraneous matter in coriander whole, which includes dust, dirt, stones, lumps of earth, chaff, stalk, stem or straws and seeds of fruits other than coriander shall be not more than 4 percent by mass of which seeds and fruits other than coriander shall not exceed 20 percent by mass of the total extraneous matter when determined in accordance with the method prescribed in 4 of IS 1797.

3.1.5 Split Fruits

This includes the fruits that have been split up longitudinally into two parts. The proportion of split fruits shall be not more than 10 percent by mass when determined by the method given in 4 of IS 1797 except that only split fruits are to be separated.

3.1.6 Damaged, Discoloured and Weevilled Fruits

This includes whole fruits or split fruits that are damaged or discoloured so as to affect the quality of the material and also includes fruits, split or whole, showing signs of partial or whole bores in the fruits as a result of their having been eaten up by weevils or insects. The proportion of damaged, discoloured and weevilled fruits shall be not more than 2 percent by mass when determined by the method given in

4.1 of IS 1797 except that only damaged, discoloured and weevilled fruits are to be separated.

3.1.7 Shrivelled and Immature Fruits

The proportion of fruits that have not been properly developed shall be not more than 2 percent by mass when determined by the method given in 4.1 of IS 1797 except that shrivelled and immature fruits are to be separated.

3.1.8 Fruits of Other Varieties of Coriander

The coriander, whole shall consist essentially of fruits of the variety of coriander specified by the purchaser or declared on the level of the bag. The proportion of fruits of other varieties of coriander, if present, shall be not more than 4 percent by mass, when determined by the method given in 4.1 of IS 1797 except that fruits of other varieties are to be separated.

3.1.9 Moisture

Moisture content shall not be more than 9 percent by mass when determined in accordance with the method given in 9 of IS 1797.

3.1.10 The coriander, whole may also be graded (see 3.1.1) before packing.

3.1.10.1 The designations of the grades and their requirements shall be as given in Table 1.

3.2 Coriander Powder

3.2.1 Description

The coriander powder shall be prepared by grinding

clean and dry coriander fruits.

3.2.2 Taste and Flavour

The coriander powder shall have its characteristic pleasant taste and flavour. It shall be free from musty odour.

3.2.3 Freedom from Moulds, Insects, Etc

The coriander powder shall be free from dirt, mould growth, insect infestation and rodent contamination visible to the naked eye (corrected if necessary) with such magnification as necessary. If the magnification exceeds X 10, this fact should be stated in the report.

3.2.3.1 It shall be free from extraneous matter and added colours.

3.2.4 Fineness

The coriander powder shall be ground to such a fineness that all of it passes through a 500-micron IS Sieve [see IS 460 (Part 1)] and nothing remains on the sieve.

3.2.5 The coriander powder shall also comply with the requirements given in Table 2.

3.3 The coriander, whole and ground shall be processed and packed under hygienic conditions (see IS 14216).

4 PACKING AND MARKING

4.1 Packing

4.1.1 Coriander, Whole

The coriander, whole shall be packed in clean and

Table 1 Grade Designations of Coriander, Whole and Their Requirements
(Clauses 3.1.10.1 and 6.1)

Sl No.	Requirements	Grade 1 Special	Grade 2 Standard	Methods of Test, Ref to
(1)	(2)	(3)	(4)	(5)
i)	Extraneous matter, percent by mass, <i>Max</i>	2	4	4 of IS 1797
ii)	Split fruits, percent by mass, <i>Max</i>	4	10	do
iii)	Damaged, discoloured and weevilled fruits, percent by mass, <i>Max</i>	1	2	4.1 of IS 1797
iv)	Shrivelled and immature fruits, percent by mass, <i>Max</i>	1	2	do
v)	Fruits of other varieties of coriander, percent by mass, <i>Max</i>	2	4	do
vi)	Volatile oil content on dry basis, percent by mass, <i>Min</i>	0.1	0.1	15 of IS 1797
vii)	Total ash on dry basis, percent by mass, <i>Max</i>	7.0	7.0	6 of IS 1797
viii)	Acid insoluble ash on dry basis, percent by mass, <i>Max</i>	1.5	1.5	8 of IS 1797
ix)	<i>Salmonella</i> , in 25 g	Absent	Absent	5887 (Part 3)

Table 2 Requirements of Coriander Powder
(Clauses 3.2.5 and 6.1)

SI No. (1)	Characteristic (2)	Requirement (3)	Method of Test, Ref to (4)
i)	Moisture on dry basis, percent by mass, <i>Max</i>	9.0	9 of IS 1797
ii)	Total ash on dry basis, percent by mass, <i>Max</i>	7.0	6 of IS 1797
iii)	Acid insoluble ash on dry basis, percent by mass, <i>Max</i>	1.5	8 of IS 1797
iv)	Volatile oil on dry basis, percent (v/m), <i>Min</i>	0.1	15 of IS 1797
v)	<i>Salmonella</i> , in 25 g	Absent	IS 5887 (Part 3)

sound jute, cloth, paper or polyethylene bags. The bags shall be free from fungal or insect infestation and shall be free from any undesirable smell.

4.1.2 Coriander Powder

The coriander powder shall be packed in clean and sound jute cloth or paper bags or paper cartons with a polyethylene liner of 75-micron (300 gauge) or in tin plate or glass containers, or aluminium foil packs or cellophane bags. If a polyethylene liner is used in tin plate containers, it may be of 37.5-micron (150 gauge). The containers shall be free from any fungal or insect infestation and shall be free from any undesirable smell.

4.1.2.1 A suitable number of small containers may be packed in wooden or cardboard cases.

4.2 Marking

4.2.1 Coriander, Whole

The following particulars shall be marked or labelled on each bag:

- Name of the material including variety;
- Name and address of the packer;
- Batch or Code number;
- Net mass;
- Date of packing;
- Grade of the material, if any;
- Instruction for storage;
- Best before date (Month and Year to be given by the manufacturer); and
- Any other requirements as given under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977* and *Prevention of Food Adulteration Act, 1955* and Rules.

4.2.2 Coriander Powder

The following particulars shall be marked or labelled on each containers:

- Name of the material and trade-name or brand, if any;
- Name and address of the manufacturer;
- Batch or Code number;
- Net mass;
- Date of packing
- Instruction for storage;
- Best before date (Month and Year to be given by the manufacturer); and
- Any other requirements as given under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977* and *Prevention of Food Adulteration Act, 1955* and Rules.

4.2.2.1 If the containers are packed in cases, each case shall also be marked with particulars as prescribed in 4.2.2; if glass containers are used, the marking for the 'fragile' as given in Fig. 1 in IS 1260 (Part 2) shall be used in each case.

5 SAMPLING

5.1 Representative samples of coriander, whole shall be drawn and tested for conformity to this specification as prescribed in IS 13145.

6 TESTS

6.1 Tests shall be carried out as prescribed in 3.1 and Table 1 for coriander whole and 3.2 and Table 2 for coriander powder.

6.1.1 The method for determination of volatile oil in coriander powder is the same as given in 15 of IS 1797, however, Fig. 3 of IS 1797 replaces oil separatory tube graduated to 0.9 ml by an oil separatory tube graduated to 0.1 ml.

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Amendments Issued Since Publication

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