Food and Agriculture Organization of the United Nations

World Health Organization

CODEX ALIMENTARIUS
INTERNATIONAL FOOD STANDARDS

CODEX ALIMENTARIUS
STANDARD

STANDARD FOR FOOD-GRADE SALT
CXS 150-1985

ADOPTED 1985
AMENDED 2025

CXS 150-1985

History page

2025 Amendments

Following decisions taken at the Forty-eighth Session of the Codex Alimentarius Commission in November 2025, amendments were made in Section 7.2: "Labelling of non-retail containers" by replacing the text with a reference to the *General standard for the labelling of non-retail containers of foods* (CXS 346-2021); and Section 9: "Methods of analysis and sampling" was amended by replacing the methods of analysis and sampling with a reference to the *Recommended methods of analysis and sampling* (CXS 234-1999). The appendix was removed from the standard and replaced with a reference to CXS 234-1999 in Section 9: "Methods of analysis and sampling".

This publication was redesigned and published in 2025.

Amendments and revisions made prior to 2025:

Amended in 1999, 2001 and 2006.

Revised in 1997 and 2012.

Adopted in 1985.

1 Scope

This standard applies to salt used as an ingredient of food, both for direct sale to the consumer and for food manufacture. It applies also to salt used as a carrier of food additives and/or nutrients. Subject to the provisions of this standard more specific requirements for special needs may be applied. It does not apply to salt from origins other than those mentioned in Section 2: "Description", notably the salt which is a by-product of chemical industries.

2 Description

Food-grade salt is a crystalline product consisting predominantly of sodium chloride. It is obtained from the sea, from underground rock salt deposits or from natural brine.

3 Essential composition and quality factors

3.1 Minimum NaCl content

The content of NaCl shall not be less than 97 percent on a dry matter basis, exclusive of additives.

3.2 Naturally present secondary products and contaminants

The remainder comprises natural secondary products, which are present in varying amounts depending on the origin and the method of production of the salt, and which are composed mainly of calcium, potassium, magnesium and sodium sulphates, carbonates, bromides and of calcium, potassium, magnesium chlorides. Natural contaminants may also be present in amounts varying with the origin and the method of production of the salt. Copper shall not exceed 2 mg/kg (expressed as Cu).

3.3 Use as a carrier

Food-grade salt shall be used when salt is used as a carrier for food additives or nutrients for technological or public health reasons. Examples of such preparations are mixtures of salt with nitrate and/or nitrite (curing salt) and salt mixed with small amounts of fluoride, iodide or iodate, iron, vitamins, etc., and additives used to carry or stabilize such additions.

3.4 Iodization of food-grade salt

In iodine-deficient areas, food-grade salt shall be iodized to prevent iodine-deficiency disorders (IDD) for public health reasons.

3.4.1 Iodine compounds

For the fortification of food-grade salt with iodine, use can be made of sodium and potassium iodides or iodates.

3.4.2 Maximum and minimum levels

The maximum and minimum levels used for the iodization of food-grade salt are to be calculated as iodine (expressed as mg/kg) and shall be established by the national health authorities in the light of the local iodine deficiency situation.

3.4.3 Quality assurance

The production of iodized food-grade salt shall only be performed by reliable manufacturers having the knowledge and the equipment requisite for the adequate production of iodized food-grade salt, and specifically, for the correct dosage and even intermixing.

4 Food additives

Food additives listed in Table 1 and Table 2 of the *General standard for food additives* (CXS 192-1995)[1] in food category 12.1.1 (Salt) may be used in foods subject to this standard.

5 Contaminants

The products covered by this standard shall comply with the maximum levels of the *General standard for contaminants and toxins in foods and feeds* (CXS 193-1995).[2]

6 Food hygiene

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the recommended international code of practice, *General principles of food hygiene* (CXC 1-1969),[3] and other relevant Codex texts such as codes of hygienic practice and codes of practice.

7 Labelling

In addition to the requirements of the *General standard for the labelling of pre-packaged foods* (CXS 1-1985)[4] the following specific provisions apply:

7.1 Name of the product

a) The name of the product, as declared on the label shall be "salt".

b) The name "salt" shall have in close proximity a declaration of either "food-grade" or "cooking salt" or "table salt".

c) Only when salt contains one or more ferrocyanide salts, added to the brine during the crystallization step, the term "dendritic" could be included accompanying the name.

d) Where salt is used as a carrier for one or more nutrients, and sold as such for public health reasons, the name of the product shall be declared properly on the label, for example "salt fluoridated", "salt iodated", "salt iodized", "salt fortified with iron", "salt fortified with vitamins" and so on, as appropriate.

e) An indication of either the origin, according to the description in Section 2: "Description", or the method of production, may be declared on the label, provided such indication does not mislead or deceive the consumer.

7.2 Labelling of non-retail containers

The labelling of non-retail containers should be in accordance with the *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).[5]

8 Packaging, transportation and storage

In any salt iodization programme, it is important to ensure that salt contains the recommended amount of iodine at the time of consumption. The retention of iodine in salt depends on the iodine compound used, the type of packaging, the exposure of the package to prevailing climatic conditions, and the period of time between iodization and consumption. To ensure that iodized salt ultimately reaches the consumer with the specified level of iodine, the following precautions may be taken into consideration by countries where climatic and storage conditions could result in a large amount of iodine loss:

a) If necessary, in order to avoid the loss of iodine, iodized salt should be packed in air-tight bags of either high density polyethylene (HDPE) or polypropylene (PP) (laminated or non-laminated) or LDPE-lined jute bags (Grade 1803 DW jute bags lined with 150 gauge polyethylene sheet). In many countries, this may require a major switch from conventional packaging materials made of straw or jute. The cost of adding extra iodine to compensate for its loss from cheaper packaging (i.e. straw or jute) must be weighed against the cost of switching to the above expensive packing material.

b) Bulk packing units should not exceed 50 kg (in accordance with International Labour Organization (ILO) conventions) to avoid the use of hooks for lifting the bags.

c) Bags that have already been used for packing other articles such as fertilizers, cement, chemicals, etc., should not be reused for packing iodized salt.

d) The distribution network should be streamlined so as to reduce the interval between iodization and consumption of salt.

e) Iodized salt should not be exposed to rain, excessive humidity or direct sunlight at any stage of storage, transportation or sale.

f) Bags of iodized salt shall be stored only in covered rooms or godowns that have adequate ventilation.

g) The consumer should be similarly advised to store iodized salt in such a manner as to protect it from direct exposure to moisture, heat and sunlight.

9 Methods of analysis and sampling

For checking compliance with this standard, the methods of analysis and sampling contained in the *Recommended methods of analysis and sampling* (CXS 234-1999)[6] relevant to the provisions in this standard shall be used.

Referenced texts

1 *General standard for food additives* (CXS 192-1995).

2 *General standard for contaminants and toxins in foods and feeds* (CXS 193-1995).

3 *General principles of food hygiene* (CXC 1-1969).

4 *General standard for the labelling of pre-packaged foods* (CXS 1-1985).

5 *General standard for the labelling of non-retail containers of foods* (CXS 346-2021).

6 *Recommended methods of analysis and sampling* (CXS 234-1999).

Codex Alimentarius

A collection of international food standards developed to protect consumer health and ensure fair practices in the food trade. Codex standards are adopted by the Codex Alimentarius Commission, an intergovernmental body with 189 Members, established by FAO and WHO. The standards are recognized by the World Trade Organization as the benchmark for the safety of internationally traded food.

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