

(updated)  
**REGULATIONS RELATING TO SALT**

Published under Government Notice No. R.239 of 16/3/2001

**As corrected by:**

Government Notice No. R. 1102 of 9/11/2001

**As amended by:**

Government Notice No. R. 1368 of 21/12/2001

The Minister of Health has, in terms of section 15(1) of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972), made the regulations in this Schedule.

## SCHEDULE

### Definitions

1. In these regulations any expression to which a meaning has been assigned in the Act shall bear that meaning and, unless the context indicates otherwise -

**“contaminant”** means any substance which, although not added intentionally to food, is present in such food as a result of the production (including operations carried out in crop husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food or as a result of environmental contamination, and includes insect fragments, rodent hairs and other extraneous matter;

**“cooking salt”** means food grade salt intended for food manufacture;

**“dendritic salt”** means salt containing one or more of the ferrocyanide salts that are added to brine during the crystallization step;

**“food additive”** means any substance not normally consumed as a foodstuff by itself and not normally used as a typical ingredient of the foodstuff, whether or not such substance has nutritive value, the intentional addition of which to a foodstuff for a technological (including sensoric) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or storage of such foodstuff results or may reasonably be expected to result (directly or indirectly) in such

substance or the by-products thereof becoming a component of or otherwise affecting the characteristics of such foodstuffs, but excludes any substance added to foodstuffs for maintaining or improving nutritional qualities or contaminants;

**“food grade salt”** means a crystalline product consisting predominantly of sodium chloride, which is obtained from the sea, from underground rock salt deposits or from natural brine;

**“impermeable packaging material”** means material which consists of one or more of the following substances: Low density polyethylene, high density polyethylene, woven polypropylene or similar materials, and includes polycoated cardboard;

**“low sodium salt”** means salt containing less than 67% sodium chloride;

**“natural secondary products”** means products other than sodium chloride which are naturally present in the raw material from which food grade salt is manufactured;

**“nutrient”** means any substance consumed as a constituent of food and which provides energy or which is needed for growth, development and the maintenance of life or a deficiency of which causes characteristic biochemical or physiological changes to occur;

**“table salt”** means food grade salt intended for use at the table.

**“the Act”** means the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972).

## **Composition**

2. (1) The content of sodium chloride in food grade salt shall not be less than 97% on a dry matter basis, exclusive of food additives.
- (2) The remainder of the sodium chloride referred to in subregulation (1) shall comprise natural secondary products which are present in varying proportions depending on the origin and the method of production of the salt and which are composed mainly of –

- (a) calcium sulphates, potassium sulphates, magnesium sulphates;
  - (b) calcium carbonates, potassium carbonates, magnesium carbonates and sodium carbonates;
  - (c) calcium bromides, potassium bromides, magnesium bromides and sodium bromides; and
  - (d) calcium chlorides, potassium chlorides and magnesium chlorides.
- (3) Food grade salt shall be used as a carrier for food additives or nutrients for technological or public health reasons.

### **Iodation**

4. (1) No person shall sell food grade salt or other salt intended for use in or on foodstuffs unless between 40 to 60 ppm (mg/kg) of iodine has been added to such salt.
- (2) Sodium or potassium iodides or iodates may be used for the fortification of food grade salt or other salt with iodine.
- (3) Food grade salt or other salt intended for use in or on foodstuffs which is imported shall contain between 40 and 60 ppm (mg/kg) iodine on entering the Republic of South Africa.
- (4) Food grade salt or other salt intended for use in or on foodstuffs which is exported from the Republic of South Africa may contain more than 60 ppm (mg/kg) of iodine.
- (5) Iodated salt shall be packed in impermeable packaging material.

### **Food additives**

5. Food grade salt may contain any food additive indicated in column I of the table below subject to the conditions and limits indicated opposite thereto in column II.

I Food Additive	II Maximum level in the final product
<b>(a) Anticaking agents</b>	
- Tricalcium phosphate .....	20 mg/kg
- Calcium and/or magnesium carbonate.....	GMP
- Calcium, magnesium, sodium-alumino or calcium- alumino silicates .....	GMP
- Calcium, potassium or sodium salts of myristic, palmitic or stearic acids.....	GMP
- Magnesium oxide .....	GMP
- Silicon dioxide, amorphous .....	GMP
- Calcium, potassium or sodium ferrocyanides* .....	10 mg/kg singly or in combination expressed as $[\text{Fe}(\text{CN}_6)]^{3-}$
<b>Emulsifiers</b>	
- Polysorbate 80.....	10 mg/kg
<b>Processing Aid</b>	
- Dimethylpolysiloxane.....	10 mg residue/kg

\* Maximum level for sodium and potassium ferrocyanides shall be 20 mg/kg when used in the preparation of dendritic salt.

### Contaminants

6. Food grade salt may not contain contaminants listed in column I of the table exceeding the maximum limits indicated opposite thereto in column II.

I Contaminant	II Maximum limit (mg/kg)
Arsenic.....	0.5 expressed as As
Copper.....	2.0 expressed as Cu
Lead.....	2.0 expressed as Pb
Cadmium.....	0.5 expressed as Cd
Mercury.....	0.1 expressed as Hg

**Labelling**

7. (1) The name of the product as declared on the label shall be "salt".
- (2) In the close proximity of the name "salt" referred to in subregulation (1), a description of the type of salt shall be affixed namely "Food Grade", "Cooking Salt", "Table Salt" or "Dendritic Salt".
- (3) Where food grade salt or other salt is used as a carrier for one or more nutrients and sold as such for public health reasons –
- (a) the name of the product shall be declared on the label, for example: "salt iodized", "salt fortified with iron", "salt fortified with vitamins", or
- (b) added nutrients shall be declared on the label.
- (4) An indication of either the origin of food grade salt or the method of production of such food grade salt may be declared on the label.
- (5) In the case of salt which has been iodized the date of iodation shall be indicated on the label wherever possible.

**Methods of analysis**

8. The methods which shall be used for determining the sodium chloride content and that of other constituents and properties in food grade salt are listed in the Annexure.

**Application and exemptions**

9. (1) These regulations shall apply to salt used as -
- (a) food or as an ingredient of food for direct sale to the consumer and for food manufacture; or
- (b) a carrier of food additives and/or nutrients.

- (2) These regulations shall not apply to salt from origin other than those referred to in the definition of "food grade salt" in regulation 1, especially not salt which is a by-product of chemical industries or low sodium salt.
- (3) The provisions of regulation 5 of these regulations shall not apply to-
  - (a) cooking salt or other salt intended for use in the manufacture of compound foodstuffs which is packaged in bags of 20 kg or more and which is labelled "non-iodated salt"; and
  - (b) salt available at pharmacies in packages of 1 kg or less which are labelled "non-iodated salt".

### **Repeal**

- 10. Government Notice No. R. 996 of 7 July 1995 is hereby repealed.

### **Commencement**

- 11. These regulations shall come into effect three months after the date of final publication.

## ANNEXURE

### METHODS OF ANALYSIS

#### 1. Determination of sodium chloride content method

The determination of sodium chloride content method allows for the calculation of sodium chloride content in food grade salt as provided for in regulation 2 based on the result of the determination of sulphates, halogens, calcium, magnesium, potassium and loss on drying. Convert sulphate to calcium sulphate and the unused calcium to calcium chloride. If sulphate in the sample exceeds the amount necessary to combine with calcium, convert it to calcium sulphate and unused sulphate first to magnesium sulphate and any remaining sulphate to sodium sulphate. Convert unused magnesium to magnesium chloride. Convert potassium to potassium chloride. Convert unused halogen to sodium chloride. Report sodium chloride on a dry matter basis, multiplying the percentage sodium chloride by  $100/100-P$ , where P is the percentage loss on drying.

#### 2. Test methods for other constituents and properties in food grade salt

I Substance/property tested for in food grade salt	II Test method
Insoluble matter .....	ISO 2479-1972 Determination of matter insoluble in water or in acid and the preparation of principal solutions for other determinations.
Sulphate content.....	ISO 2480-1972 Determination of sulphate content. Barium sulphate gravimetric method.
Halogens .....	ISO 2481-1973 Determination of halogens, expressed as chlorine. Mercurimetric method.
Calcium and Magnesium contents....	ISO 2482-1973 Determination of calcium and magnesium contents. EDTA complexometric methods.
Potassium content.....	ESPA/CN-E/103-1994 Determination of potassium content by sodium tetraphenylborate volumetric method

	or alternatively according to the ESPA/CN-E/104-1994 Flame atomic absorption spectrophotometric method.
Loss on drying (conventional method) .....	ISO 2483-1973 Determination of the loss of mass at 110°C.
Copper content .....	ESPA/CN-E/101-1994 Determination of copper content. Zinc dibenzyl dithiocarbamate photometric method.
Arsenic content .....	ESPA/CN-E/105-1994 Determination of arsenic content. Silver diethyldithiocarbamate photometric method.
Mercury content .....	ESPA/CN-E/106-1994 Determination of total mercury content. Cold vapour atomic absorption spectrometric method.
Lead content .....	ESPA/CN-E/108-1994 Determination of total lead content. Flame atomic absorption spectrometric method.
Cadmium content .....	ESPA/CN-E/107-1994 Determination of total cadmium content. Flame atomic absorption spectrometric method.
Iodine content .....	ESPA/CN-E/109-1996 Determination of total iodine content. Titrimetric method with sodium thiosulphate.

Abbreviations used in table:

ISO : International Standards Organisation

ESPA/CN: European Salt Producers' Association / "Commission de normalisation des méthodes d'analyse".

**MINISTER OF HEALTH**

**DATE:**