



# SPECIFICATIONS

*Rules and standards for the inspection  
and certification of ecological products*

## PART V SEA SALT – Appendix A

# APPENDIX A: Regulations for traditional sea salt: origin, conditions of production, processing, packing, packaging, commercialisation and control plan

## A.1. DEFINITIONS

### Refining

Refining is understood to mean the purification processes designed to obtain a compound of NaCl that is practically pure (99.9%). The refining process harms the nutritional qualities of the salt (loss of trace mineral elements). Refining usually includes a recrystallization stage during which a solution of brine is treated with chemicals to precipitate out any impurities (mostly magnesium and calcium salt).

### Crystallised sea salt

Traditional sea salt is a solar salt that is extracted from seawater. Sea salt is regularly harvested by hand at salt pans, where the salt crystallises from the evaporation and natural concentration process of seawater as it passes through a series of pools. Sea salt contains a minimum of 94% sodium chloride and is a salt rich in minerals and trace mineral elements.

Traditional sea salt is not the same as industrial sea salt, which is also a solar salt extracted from seawater. But industrial sea salt is harvested by machines once or twice a year after a process to concentrate the seawater.

### Liquid sea salt

Liquid sea salt is pumped in a saline filled with sea water purified by Posidonia oceanic and other phanerogam plants such as sabadales. These underwater plants produce oxygen and give the brine a balanced taste while being characterized by low sodium. It is rich with minerals and trace elements. The salt is harvested by a mechanical pump made directly in saline.

Excluded from this definition is any salt produced by dilution:

- Pre-harvest: a deposit of salt following the passage of a river
- Post-harvest: a rock salt or crystallized sea salt

## A.2. GEOGRAPHIC ORIGIN AND ENVIRONMENT

### A.2<sup>1</sup> General Environment

By conducting their business, salt producers help to maintain and preserve the landscape and biotope. Salt pans need to be located in areas where there is a favourable environment, more specifically in a location that preferably offers the following conditions:

- Located in natural and/or protected areas (operated under coastal legislation, protected areas, natural reserves or parks or heritage sites).
- At least 500 metres from major communication routes.
- Away from and unaffected by prevailing winds blowing from major urban, industrial or tourist centres, as well as waste or effluent treatment works, public tips or illegal dumps.
- Not affected by farming or run-off pollution resulting from the application of pesticides, chemical fertilisers or veterinary medication (the farming of crops, livestock rearing and aquaculture).
- Not in areas that are subject to applications of insecticides, rat poison or other harmful chemicals.

- Not in an area where hunting is practised, on account of the accumulation of lead in the environment.

#### A.2<sup>2</sup>. Water supply

- The water used must come exclusively from the sea or the ocean, without any external soiling and especially without coming into contact with wastewater generated by intensive fish-farming or other types of husbandry.
- Water circulation in the salt pans must be natural, driven only by the power of gravity.
- In the event of accidental pollution, no water will be taken into salt marshes.

#### A.2<sup>3</sup>. Maintenance of the surroundings

- The banks and sides of the salt pans must be maintained in such a way as to guarantee good water circulation and evaporation, preferably using manual processes or, as a last resort, by mechanical or thermal processes. These latter processes must take place outside salt production periods and times when fauna are reproducing.
- There must be no use of chemicals, matter or materials presenting a sanitary risk in the vicinity of the production locations. The use of any chemical procedures is forbidden.

The products obtained in compliance with these specifications must, in addition to corresponding with geographically favourable locations and using renewable sources of energy (such as solar energy or tidal power), be representative of production systems that protect the environment and use traditional methods of craftsmanship.

## A.3. PRODUCTION OF CRYSTALLISED SEAL SALT

#### A.3<sup>1</sup>. The work of the salt producer

Harvesting sea salt is a totally natural process, involving the sea, the sun, the wind and the labour of human beings only. The seawater must reach the salt pans naturally or be brought in to the upper pools using traditional methods that enable the storage of the right quantity of water needed for operating all the salt pans located downstream from the upper pools.

#### A.3<sup>2</sup>. Formation of the salt

The water, as it circulates slowly in the clay basins of the salt marsh, evaporates under the effect of the sun and wind, becoming more concentrated in salt and rising gradually from 30-35 g to 240-260 g per litre of water.

When the water reaches saturation point in the final pool in the circuit, the salt crystallises. This salt then has to be harvested manually during the summer.

The work carried out by the salt producer extends further than just harvesting salt: from the end of the winter until harvest time, the producer maintains the salt marsh itself (removing seaweed and mud, raising the level of the 'vettes' or walkways that the salt-maker walks along through the salt pans, etc.) to ensure that the water circulates and evaporates properly.

After the summer is over, when the harvest comes to a halt, the producer "brings in" the salt to where it is stored (salt-drying lofts or specially designed sheds or drying floors, etc.)

### **A.3<sup>3</sup>. Salt exploitation**

#### **A.3<sup>3.1</sup>. Harvesting salt**

Evaporation takes place through the action of the wind and sun. The salt itself is harvested manually.

#### **A.3<sup>3.2</sup>. Equipment used (non-exhaustive list)**

The tools and utensils used must not be made from materials that can rust. Examples of materials permitted include stainless steel, polyethylene or fibreglass. However, if tools or utensils that can corrode are used, any contact with water or the salt must be kept to a minimum. As an exception, aluminium shovels are allowed for a limited period. Sheets of fibrocement are not permitted.

#### **A.3<sup>3.3</sup>. Protecting equipment and tools**

The use of paint, coatings or treatments applied to any wooden surfaces that come into direct contact with the salt (tools, wheelbarrows, internal lining of various containers, including trailers, etc.) is forbidden. The tools used for handling the salt (loader bucket, loading screw, sifting spouts, etc.) may not be painted or treated in any way. For other equipment, only paint that is specifically designed for contact with food is permitted. Such paint may not be white in colour.

#### **A.3<sup>3.4</sup>. Storage and transport**

After being strained, the salt is transported to a specific location on the edge of the salt marsh, where it is deposited in heaps in the open air. These heaps may be protected by tarpaulins made from polyethylene or ethyl vinyl acetate to prevent any soiling from the outside environment. All material that comes into contact with the salt must be specifically intended for food usage.

The ground on to which the salt is deposited may be covered with a food-standard film or tarpaulin.

Transport from the salt marsh to the depot must be carried out in trailers with the interior protected by wood, tarpaulins, stainless steel or plastic. Food big-bags may also be used. The quality of the salt may not be affected by the loading, transport or unloading process. For this reason, the salt must again be covered with a tarpaulin during these operations to prevent it being soiled, in particular by splashes and debris thrown up by tractor wheels.

Any machines used inside the depot must be fitted with gas-driven or electric motors.

Outside storage areas and depots must be clean, particularly before and after handling operations. The salt must be covered by tarpaulin in outside storage areas (as well as inside depots, where appropriate). The use of chemicals or matter/materials that present any sanitary risk is not permitted in storage areas or depots, or in the vicinity of these locations. This precaution also applies to packing and/or packaging facilities.

Each batch of salt that meets these specifications must be stored separately from other batches and must be identified clearly.

## A.4. PRODUCTION OF LIQUID SEAL SALT

### A.4<sup>1</sup>. The work of the salt producer

Harvesting sea salt is a totally natural process, involving the sea, the underwater phanerogam plants, the sun, the wind and the labour of human beings only. The seawater must reach the saltpans naturally or be brought in to the upper pools using traditional methods that enable the storage of the right quantity of water needed for operating all the saltpans located downstream from the upper pools.

### A.4<sup>2</sup>. Formation of the salt

The water, as it circulates slowly in the clay basins of the salt marsh, evaporates under the effect of the sun and wind, becoming more concentrated in salt and rising gradually from 30-35 g to 480 g per litre of water.

The work carried out by the salt producer extends further than just harvesting salt: from the end of the winter until harvest time, the producer maintains the salt marsh itself to ensure that the water circulates and evaporates properly.

### A.4<sup>3</sup>. Salt exploitation

#### A.4<sup>3.1</sup>. Harvesting salt

Evaporation takes place through the action of the wind and sun. Harvesting is done by mechanical pumping.

#### A.4<sup>3.2</sup>. Equipment used (non-exhaustive list)

The tools and utensils used must not be made from materials that can rust. Examples of materials permitted include stainless steel, polyethylene or fibreglass. However, if tools or utensils that can corrode are used, any contact with water or the salt must be kept to a minimum.

Sheets of fibrocement are not permitted.

#### A.4<sup>3.3</sup>. Protecting equipment and tools

The tools used for handling the salt (loader bucket, loading screw, sifting spouts, etc.) may not be painted or treated in any way. For other equipment, only paint that is specifically designed for contact with food is permitted. Such paint may not be white in colour.

#### A.4<sup>3.4</sup>. Storage and transport

All material that comes into contact with the salt must be specifically intended for food usage.

Liquid sea salt is stored in containers or polyethylene bags, stainless steel or wood.

Outside storage areas and depots must be clean, particularly before and after handling operations. The use of chemicals or matter/materials that present any sanitary risk is not permitted in storage areas or depots, or in the vicinity of these locations. This precaution also applies to packing and/or packaging facilities.

Each batch of salt that meets these specifications must be stored separately from other batches and must be identified clearly.

## A.5. PROCESSING, PACKING AND PACKAGING

Two types of crystallised sea salt are harvesting together:

- Coarse salt, which crystallises in water
- 'Fleur de sel', which crystallises on the surface of the water on calmer, warmer days, and which is held in suspension without ever touching the bottom of the saltpan. This explains its high level of purity and whiteness.

### A.5<sup>1</sup> Processing

#### **Crystallised sea salt**

The crystallised salt must be dried naturally in the sun and stored in its unrefined state. If this is not possible, indirect heating techniques are permitted, preferably from a renewable source of energy (green electricity, etc.). If direct heating is used, only gas heating is allowed.

#### **Liquid salt**

Liquid salt is pumped to be directly stored in bags or containers made of polyethylene or stainless steel without any intermediate handling.

#### **Any refining operation is forbidden**

The use of any additives (e.g. pH correctors, flocculants, anti-caking agents and flavour enhancers E504, E535, E536, E621, E622, E623, monosodium glutamate or potassium glutamate) or "enhancing" element (e.g. iodine, fluorine, magnesium) is forbidden, as is mixing the product with salt from origins that are not authorised under these specifications.

The product can be stored in big-bags made from polyethylene or polypropylene.

Before it is packed, the salt may be sifted.

To obtain ground or milled salt, only techniques that do not adversely affect the chemical characteristics and quality of the product are authorised.

### A.5<sup>2</sup> Packaging

The materials used for packaging may not harm the sanitary quality of the product in any way. Packs must be made preferably from natural materials that are easy to recycle, such as receptacles made from glass or polyethylene.

Packaging made from aluminium and PVC is forbidden.

## A.6. CHEMICAL CHARACTERISTICS

In terms of the analytical parameters of the final product, its maximum and minimum content levels must be complied with on account of their decisive effect on the salt's level of quality:

### Crystallised salt

- Sodium chloride – minimum 94% of the dry extract
- Total magnesium – minimum 0.25 % (in MS)
- Heavy metals – less than (mg/kg):
  - lead 1.0
  - cadmium 0.25
  - copper 1.0
  - mercury 0.05
  - arsenic 0.25

### Liquid salt

- Sodium total: maximum 9%
- Carbonates < 1,0 mg/L
- Heavy metals – less than (mg/kg):
  - lead 0,05
  - cadmium 0.05
  - copper 1.0
  - mercury 0.05
  - arsenic 0.25
  - iron 0,01

In addition, the liquid salt has the following properties:

- Alkaline pH
- Fat soluble
- Salting power defined as max. 0.85 ml should be sufficient to salt a dish net weight 400 g.

## A.7. CONTROL PLAN

The production, harvesting and preparation of the salt must comply with these specifications. To recap, each batch of salt must be identifiable.

### A.7<sup>1</sup>. Production control

These specifications are agreed to by the producers and the harvesting and/or processing bodies, all of which are required to apply the regulations in full.

There will be two types of controls:

**A.7<sup>1.1</sup>. Internal control:** each producer of salt in question will be audited using a standard control sheet that will meet the requirements of these specifications.

**A.7<sup>1.2</sup>. External control:** carried out by an independent certification body, with at least one inspection annually of the production location. The number of inspections and choice of date(s) will be left to Ecogarantie<sup>®</sup> and the certification body.

#### **A.7<sup>2</sup>. Minimum requirements and control measures**

Controls are carried out in accordance with section IV of EC Regulation 889/2008 and its modifications.

The packing and processing workshop keeps updated records of:

- Inward registrations of raw materials (origin of the salt, volume),
- Registrations of outgoing finished products (volume),
- Storage and packing programmes,
- Stocks of packaging and labels,
- Analysis results,
- The list of subcontractors and the products involved.

**A.7<sup>3</sup>. Conformity checks are carried out at various stages of production, storage, processing and packing.**

Comprehensive analyses will be carried out on different samples taken at random (heavy metals, etc.).

**A.7<sup>4</sup>. After checking conformity and certification, the packaging is allowed to display the collective Ecogarantie® brand.**