



Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

QUALITY PROTOCOL
FOR FRACTIONED HONEY

MADE OFFICIAL ON: September 17, 2007.

RESOLUTION NR: 147/2007

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

INTRODUCTION

1. Scope

A high percentage of Argentine honey is sold abroad. Considering that part of said percentage corresponds to fractioned honey, this protocol takes into account not only local demands, but also requirements from the main purchasing markets (European Union, United States and Japan).

The definition of honey established by the Argentine Food Code (Resolution GMC MERCOSUR 15/94 incorporated to the AFC by Resolution MSyAS Nr 003, Jan.11,1995) is taken as a basis: *“Honey is a food substance produced by honey bees from the nectar of flowers, secretions from the live parts of plants or excrements from plant sucking insects that remain on the live parts of plants, that honey bees collect, transform, combine with their own specific substances, store and let age in hive honeycombs”.*

Honey is a product associated with nature worldwide. Therefore, special emphasis is placed on those analyses that may demonstrate the inexistence of different contaminant substances in the product and in the traceability system implemented in Argentina to satisfy the needs of demanding consumers.

This protocol defines and describes the quality attributes of fractioned honey authorized to carry the “Argentine Food – A Natural Choice” seal.


Being a dynamic document, this protocol may be periodically revised according to the needs of the public and/or the private sectors.

2. General criteria

This document has been elaborated on the basis of the Quality Protocol for Honey in bulk issued by the National Apicultural Council and approved by SAGPyA Resolution 47/05.

Producers aspiring to implement this protocol must take into account the implicit compliance with current honey regulations detailed below:

- Argentine Food Code – Chapter X “Sweet Foods”, articles 782 and 783.
- National Registry of Apicultural Producers – RENAPA (SAGPyA Resolutions Nr. 283/0, 89/02 and 857/06)/ Provincial Apicultural Laws.
- MERCOSUR Technical Regulations 26/03 according to the SAGPyA and SPR y RS joint Resolution 149/05 and 683/05, and GMC Resolution 46/03 MERCOSUR Technical Regulations on Nutritional Labeling of Foods.
- MERCOSUR Technical Regulations on “Hygienic and Sanitary Conditions and Good Manufacturing Practices for Food Manufacturing/Processing Plants”, GMC Resolution Nr. 80/96 according to Resolution Nr 587/97 from the Ministry of Health and Social Security (Chapter II CAA).
- GMC Resolution Nr 102/94, maximum tolerance limits for inorganic contaminants.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

- SENASA¹ Resolution Nr N° 233/98, Sanitation Standard Operating Procedures.
- SENASA Resolution 353/02, Enrollment, Register and Authorization of Honey Extraction Rooms, and its amendment SAGPyA Resolution Nr 870/06, Requirements for authorizing the operation of plants where honey for human consumption is extracted, in order to adopt regulations containing hygienic, sanitary and functional requirements for different Honey Extraction Rooms.
- SENASA Resolution Nr 220/95, Regulation for the authorization and operation of processing plants where honey or other apicultural products are treated, handled, industrialized, processed, extracted, fractioned, aged, adapted, packed or stored.
- SENASA Resolution Nr 186/03, Honey traceability.
- SAGPyA Resolution Nr 121/98, Drums for honey in bulk.
- Argentine Food Code - Chapter IV "Tools, Receptacles, Containers, Packaging, Equipment and Accessories".
- SAGPyA Resolution Nr 47/05, Honey Quality Protocol, not obligatory, voluntary adherence and implementation with the purpose of identifying the differential attributes of Argentine honeys.
- National Plan for Food Residue Control and Hygiene (CREHA Plan), 2006 Annual Plan for Residues and Toxins in food of animal origin.

Differentiating attributes established for fractioned honey emerged from information supplied by the honey sector's companies and by different specialized organs.

3. Grounds for determining differential attributes


Product attributes

In general, selected attributes are based on the association of the product with food of natural origin and also with healthy food basically resulting from production systems that enable the obtainment of products with a series of properties contributing to the welfare of consumers.

For this reason, emphasis is placed on the inexistence of residues of antibiotics and of other contaminating substances. In addition, physical and chemical parameters are also taken into account to avoid product alteration at fractioning.

The sensorial characteristics of honey, such as color, aroma, flavor and consistency are associated with its geographical and botanical origin and consequently are not particularly included, as they contribute to provide additional differential value. This means that, in general, the organoleptic characteristics of honey are in keeping with its closely linked physicochemical parameters.

¹ SENASA: National Service for Agroalimentary Health and Quality

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

For example, honey consistency may be liquid, viscose or solid and it is necessary to know that with time most honeys crystallize² because honey is an oversaturated sugar solution. Consequently, this characteristic is not predefined in this protocol.

Process attributes

Conditions established for honey processing are taken into account from the moment of raw material production (considering it is the main product input), reception, processing, packaging, to the transportation of goods, i.e. the complete chain, in order to ensure the permanence of quality and of the conditions established in this protocol throughout the entire production and sale circuit.

SENASA Resolution Nr 186/03 “Traceability in honey” currently in force has been taken as a basis for establishing the steps to follow to increase protection of the final product in the case of honey.

Container attributes

Current regulations have been considered for the definition of container and it has been decided to opt for the most widely accepted worldwide. A container made of recyclable material that may enable a better perception of the product quality.

DIFFERENTIATING PRODUCT ATTRIBUTES

The product under analysis is exclusively packaged honey for direct consumption, with a weight below or equal to 2.5 kg (based on the MERCOSUR common nomenclature).


Physical and chemical properties

- **Humidity:** maximum 18%, determined using a refractometric method (Reference A.O.A.C. 15th.Ed. 1990, 969.38 B).

Exceptions: Humidity percentage for honeys with more than 45% of *Baccharis spp* (Chilca) pollen is within a range going from 15.7% to 19.4%. For this reason a 19% maximum humidity is established for chilca unifloral honey. In this case the corresponding pollen analysis is required.

For *Polygonum spp* (de Caá-tay) honeys the maximum humidity percentage established is 20% and the relation fructose/glucose (minimum) must equal 1.8. In this case, the corresponding pollen analysis is required.

² Crystallization time is determined by the relation of honey sugars (glucose and fructose), by the relation glucose-water and also by after-harvest storing conditions and by directed crystallization processes.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

- **Hydroxymethylfurfural (HMF):** maximum 25 mg/kg. (Reference AOAC 15th.Ed. 1990, 980.23).

Exceptions: There is a 95% probability for HMF to be between 26 and 37 mg/kg in unifloral honeys with more than 45% of *Baccharis spp* pollen. For this reason, a maximum HMF value of 30 mg/kg is established. The corresponding pollen analysis is required in this case.

- **Free acidity:** maximum 20 meq/kg. (Reference AOAC 15th.Ed. 1990, 962.19).

Exceptions: Free acidity in unifloral honeys with more than 45% of *Baccharis spp* pollen is within a range going from 31.21 to 42.07 meq/kg, with an average of 36.24 meq/kg (+/- 2.68) and a 95% probability of being between 35.35 and 37.14 meq/kg. For this reason a maximum acidity of 35 meq/kg is established. The corresponding pollen analysis is required in this case.


Microbiological parameters

MERCOSUR Resolution GMC 15/94 establishes the use of analytical methods.

MICROORGANISMS	LIMITS	METHODS OF ANALYSIS REFERENCE
<i>Salmonella spp.</i>	Absence in 25 g	A.P.H.A Compendium of Methods for the Microbiological Examination of Foods, Method 26.12, 2 nd . Ed. 1984
<i>Shigella spp.</i>	Absence in 25 g	Same method as Salmonella or V.A.N. Bacteriological Analytical Manual, 8 th Edition, Revision A, 1998. Chapter6. Revised: 2000-MAY and 2000-October
Total coliforms	Absence in 1 g	I.C.M.S.F., Microorganisms in Foods1, Their significance and methods of enumeration, Method 4, 2nd. Ed. 1978
Fungi and yeasts	Less than 10 UFC/g	A.P.H.A. Compendium of methods for the Microbiological Examination of Foods, Method 17.52, 2nd. Ed. 1984.

Chemical contaminants

Honey must not contain residues of the following chemical compounds:

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

- Tetracycline Group (Tetracycline, oxytetracycline and chlortetracycline): not detectable.
- Macrolides (Tylosine): not detectable.
- Aminoglycosides Group (Streptomycin, dihydrostreptomycin): not detectable.
- Fenicols (Chloramphenicol): not detectable.
- Sulfonamides Group (Sulfadimethoxin, sulfamonomethoxin, sulfamethazine, sulfathiazole, sulfadiazine, sulfamethoxazole, sulfisoxazole, sulfamerazine, sulfamethoxypyridazine, sulfamethoxazole): not detectable.
- Nitrofurans (AOZ, AMOZ, AHD, SEM): not detectable.
- Antiparasitics (Amitraz): not detectable.
- Chlorinated Pesticides [Hexachlorobenzene, dieldrin, aldrin, hexachlorocyclohexane- α -isomer, mirex, hexachlorocyclohexane- β -isomer, heptachlor epoxide, lindane (hexachlorocyclohexane- γ -isomer), α : β chlordane: Oxychlordane - endrin, α : β endosulfan: endosulfan sulfate, DDT and metabolites, methoxychlor]: not detectable.
- Phosphorated pesticides (Diazinon, bromophos, ethylbromophos, chlorfenvinphos, fenitrothion, chlorpyrifos, ethion, fenitrothion, cumaphos): not detectable.
- Pyrethroids Group (Fenprophos, fenprophos, fluvalinate): not detectable.
- Carbamates Group (Aldicarb + metabolites, carbaril, carbofuran + metabolites): not detectable.
- Polychlorinated Biphenyls Group* (congeners: Nr 28, Nr 52, Nr 101, Nr 118, Nr 138, Nr 153, Nr 180): not detectable.
- Phenol: not detectable.
- Heavy metals


COMPOUND	DETECTION LIMIT ($\mu\text{g}/\text{kg}$)	METHODS OF ANALYSIS
LEAD	50	AA -VA
CADMIUM	10	AA-VA
ARSENIC	15	AA-HV
MERCURY	20	AA-VF

The methods of analysis for the above mentioned chemical compounds will be established in the 2006 CREHA Plan (See Annex I)

* Are analyzed in the same samples and in the same test in which organochlorinated pesticides are analyzed.

- Copper: maximum 10 mg/kg. Method: AOAC 971.20

Genuineness

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

In order to guarantee genuineness by using the stable isotope method of analysis as purity criterion, in accordance with the one adopted by FAO (FAO, Manuals of Food Quality Control. Food Analysis: Quality, Adulteration and Tests of Identity. FAO FOOD AND NUTRITION PAPER 14/8, Rome, (1986), 114-117).

Pure honey normal values oscillate between -27.5‰ and -23.5 ‰.

When the result of the analysis of the isotopic relation $^{13}\text{C}/^{12}\text{C}$ is negative, with values below -23.5 ‰, it is necessary to confirm the presence of corn syrup by means of fine-layer Chromatography. A positive result using this technique is conclusive.

Although no values are established for honey color, it must be registered in the corresponding charts using the officially recognized method (Pfund's colorimeter).

Important: Companies must submit documentation informing the periodicity of analysis and the grounds for selecting their sampling³ methods. In all cases, recognized official techniques must be used and the analyses must be carried out in laboratories belonging to official networks.

DIFFERENTIATING PROCESS ATTRIBUTES

1. HARMLESSNESS ASSURANCE SYSTEM

Honey fractioning companies aspiring to obtain the “*Argentine Food – A Natural Choice*” seal must implement the Hazard Analysis and Critical Control Points (HACCP) System in their processing room from reception of raw material to final product.

2. PROCESSING STAGES


A. Reception of drums

Incoming raw materials must comply with the protocol for honey in bulk (SAGPyA Resolution 47/05). Processing rooms must count with the following information on raw material suppliers (whether apiaries belong to the honey processor or to third parties): field charts (sanitary handling, operations carried out, products applied and moment of application) and charts corresponding to the extraction room (room number, drums extracted and batch number)

In addition, they must:

- count with updated supplier lists including the corresponding RENAPA number.
- carry out periodical supplier audits to verify the fulfillment of Good Apiculture Practices (they must have audit date, number of the audited supplier and audit result in the room)

³ Following regulations may be used as Reference: Codex STAN 234-1999, ISO Standard 7002, IRAM 15929 “Honey – Sampling and sample collection”, Resolution SENASA N°370/97 –Annex III.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

- analyze different suppliers at random throughout the year, before storing, in order to determine the absence of contaminating substances and ensure the physical and chemical characteristics of the honeys that enter the plant. For this purpose, suppliers must report the periodicity of analysis and the sampling form for the obtainment of raw material samples. These analysis may be carried out in the company's own laboratories (in this case they must report the respective analyses and methods) or in laboratories officially authorized.

The reception of honey in bulk must be carried out only in drums complying with SAGPyA Resolution Nr 121/98, and those drums presenting alterations in their physical integrity (dents, distortions, breakages or other anomalies) must be rejected. They must count with the corresponding identification according to SENASA Resolution Nr 186/03 relative to traceability and must have the supporting documentation stipulated by said regulation.

Accepted drums must be cleaned and sanitized before storage.

Results obtained will form part of the documentation and registers of the processing plant to ensure the quality of the product purchased.

All drums entered into the plant must be identified in correlative numeric or alphanumeric form and must be registered in the charts designed for this purpose. (See Annex II).

B. Storage

During the time drums are stored all loading, unloading and handling requirements must be complied with and the elements required for the operations must be used in order to avoid dents, distortions, breakages or other anomalies. Measures must be taken to ensure an adequate development of these tasks.


Minimum measures with respect to ceiling and lateral walls must be observed at the moment of piling up drums in order to facilitate their inspection and cleaning.

C. Processing

Processing (or process) consists in a series of alternated or simultaneous activities or operations that are carried out with raw material (honey) previous to fractioning, adapting, modifying and/or mixing it in order to obtain a genuine final product.

If necessary, this stage may include:

- a) Indirect and controlled heating in order to provide sufficient fluidity to the product to pass through all the process stages. The heating can only be carried out using heating techniques that do not imply direct contact with honey, so as to avoid quality alterations in the final product. The temperature range must be between 50 and 60°C. Registers must be made to ensure said values during this stage.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

- b) Mechanical mixing of raw materials with the purpose of obtaining homogenous products regarding organoleptic and physicochemical characteristics.
- c) Product straining and cleaning to eliminate impurities, substances and/or foreign matters and/or alien to product microcrystals, and /or any other future crystallization nucleus.

In case filtering under pressure is required, it may be necessary to reduce the viscosity of the product to enable pumping, straining and container filling. This demands the control and optimization of the relation Temperature (T°) and time (t) of exposure to temperature in each one of the operations carried out. To this end, it will be necessary to verify and reconcile the different requirements with the application of different processing equipment, depending on honey characteristics and type of product presentation. The use of straining processes that remove part of the honey pollen must be indicated in the container label (filtered honey). A straining process retaining pollen grains in the filters must not be applied in the case of unifloral honeys.

- d) Application of other accepted technologies compatible with product quality.

Note: Operations carried out during process must be registered in all cases.

D. Fractioning

Fractioning is the operation by which food is divided and prepared for distribution, sale and delivery to consumer.

Container control

One of the following recommended methods must be used for controlling containers and tops:

- Visual observation and container reversal.
- Treatment with filtered air (sterilizing filter) under pressure.
- Use of UV light.
- Metal detector.


E. Product identification

Labeling requirements in accordance with local current legislation and destination country laws must be complied with.

Manufactured products must be registered in the operation books established by SENASA Resolution Nr 186/03.

F. Storage of finished products

All requirements regarding loading, unloading, handling as well as those relative to operation elements must be complied with during product storage.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

Preservation and storage conditions must ensure the quality of finished products and must be registered.

In no case may products be stored outdoors or be kept in such condition while waiting to be moved to the warehouse.

It is reminded that the entire process must be in agreement with the HACCP Plan and critical points considered necessary must be established.

IMPORTANT. Products covered by this protocol and by SAGPyA Resolution Nr 392/05 must be separated from the rest, and batches and shipments must be correctly identified in order to ensure they are handled separately from products not protected by the Seal. To this end, companies must count with documentation and registers safeguarding the goods carrying this mark.

DIFFERENTIAL ATTRIBUTES OF CONTAINERS


Only glass or PET (Polyethylentereftalate) containers may be used for packaging honey under the following conditions:

Glass containers


- Bromatologically acceptable.
- Virgin, unused.
- Transparent to enable product appreciation.
- Provided with safety band.

PET containers

- Approved by competent health authority according to Chapter IV of the AFC, Joint Resolution SPRRS 69/2007 and SAGPyA 197/2007 (this resolution incorporates Resolution GMC Nr 24 from 10/8/04 MERCOSUR Technical Regulations on "Positive List of Polymers and Resins for Containers and Plastic Equipment in Contact with Food"). The corresponding analysis certificate dated after 5/22/2007 must be submitted for this purpose.
- Total migration value: below 10 ppm.
- Virgin, unused.
- Transparent to enable product appreciation.
- Compatible with product to be contained.
- Good mechanical resistance.
- Provided with safety band.
- Top in accordance with container characteristics.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

Use functionality: it is recommended that to the extent possible containers must be designed to facilitate product dosage.

Secretariat for Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 10	06/06/07

ANNEX I


ANALYSIS METHODS ESTABLISHED BY THE CREHA PLAN

CHEMICAL Contaminants

- Heavy Metals: LEAD: AA-AV.
CADMIUM: AA-AV.
ARSENIC: AA-VH.
MERCURY: AA-VF.

- TETRACYCLINE: HPLC.
- TYLOSINE: HPLC – MS.
- NITROFURANS: HPLC-MS-MS.
- CHLORANPHENICOL: RIA/IA.
- CHLORINATED: GC/ECD.
- PHOSPHORATED: GC/FPD.
GC/NPD.
- ANTIPARASITICS: GC/MS.
- AMITRAZ: HPLC.
- SULPHONAMIDS: HPLC.
- PYRETROIDS: GC/ECD.
- CARBAMATES: HPLC.
- PHENOL: HPLC.
GC/MS.

Reference: AA: Atomic Absorption.
AV: Anodic Voltametry.
VH: Volatile Hydrides.
CS: Cold Steam.
HPLC: Liquid Chromatography.
GC: Gas Chromatography.
ECD: Electron Capture Detector.
FPD: Flame Photometric Detector with Phosphorus Filter
MS: Mass Spectrometry.
RIA: Radio Immune Analysis
IA: Immune Analysis.

Secretariat of Agriculture, Livestock, Fishing & Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 09	04/09/07

ANNEX II

OPERATIONS BOOK FOR PROCESSING AND FRACTIONING ROOMS (SENASA Resolution Nr 186/03)

HONEY PROCESSING AND FRACTIONING REGISTER


PLANT OFFICIAL Nr.
Month..... Year:.....

Location:.....

Date			Extraction Room and Batch of Origin ⁴	Kg. of Honey Received	Process carried out at Plant	Identification of Final Product Batch	Presentation and Number of Final Batch Containers	Supporting Documentation
Day	Month	Year						


Signature and seal of official in charge

⁴ Extraction Room Identification Number, followed by Batch number assigned to the apiarist that supplies the honey, adding the last two digits of the extraction year (this identification data must be placed on the planographed area of drums)

Secretariat of Agriculture, Livestock, Fishing & Food Undersecretariat of Agricultural Policy and Food National Food Administration	QUALITY PROTOCOL	
Code: SAA005	Version: 09	04/09/07

Entities that have cooperated in the elaboration of this protocol:

- National Committee for the Promotion of Fractioned Honey
- National Institute of Industrial Technology (INTI)
- National University of Entre Ríos – Faculty of Bromatology
- National Institute of Agricultural Technology (INTA)

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

Audit date:

Auditing company:

Audited company:

Location:

Head Office:

Town or City:


Telephone:

Name of company's employee responsible for quality/ position

Product: Fractioned Honey

Reference Protocol Code: SAA005


		Page 15
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

RESULTS


Attributes		Compliance		Observations
		YES	NO	
PRODUCT				
1. Physicochemical properties:				
a. Humidity: (Reference AOAC 15th. Ed. 1990, 969.38 B)	Max: 18%			Verify register/s and record date and result of each analysis
	Max: 19% (honeys with more than 45% of <i>Baccharis spp</i> pollen)			Verify register/s and record date and result of each analysis Attach corresponding pollen analysis.
	Max: 20% (<i>Polygonum spp.</i> , Caá- tay)			Verify register/s and record date and result of each analysis Attach corresponding pollen analysis.
b. Hydroxymethylfurfural (HMF)	Max.: 25 mg/kg			Verify register/s and record date and result of each analysis

		Page 16
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

Attributes	Compliance		Observations
	YES	NO	
(Reference A.O.A.C. 15th. Ed. 1990, 980.23) Max.: 30 mg/kg (honeys with more than 45% of <i>Baccharis spp</i> pollen)			Verify register/s and record date and result of each analysis Attach corresponding pollen analysis
c. Free acidity: (Reference A.O.A.C.15th. Ed. 1990, 962.19) Max.: 20 meq/kg.			Verify register/s and record date and result of each analysis.
Max.:35meq/kg. (honeys with more than 45% of <i>Baccharis spp</i> pollen)			Verify register/s and record date and result of each analysis Attach corresponding pollen analysis
2. Microbiological Parameters			
a. <i>Salmonella spp</i> : absence in 25 g. (Compendium of Methods for the Microbiological Examination of Foods, Method 26.12, 2°. Ed. 1984)			Verify register/s and record date and result of each analysis
b. <i>Shigella spp</i> : absence in 25 g. (Same method as salmonella or B.A.M. Bacteriological Analytical Manual, 8th Edition, Revision A, 1998. Chapter 6.Revised: 2000-May and 2000-October)			Verify register/s and record date and result of each analysis


		Page 17
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

Attributes	Compliance		Observations
	YES	NO	
c. Total coliforms: absence in 1g. (I.C.M.S.F., Microorganisms in Foods 1, Their significance and methods of enumeration, Method 4, 2 nd . Ed. 1978.)			Verify register/s and record date and result of each analysis
d. Fungi and yeasts: less than 10 UFC/g (A.P.H.A Compendium of Methods for the Microbiological Examination of Foods, Method 17.52, 2 nd . Ed. 1984)			Verify register/s and record date and result of each analysis
3. Chemical contaminants ⁵:			Attach copy of each component results
a. Tetracycline Group: not detectable			
b. Tylosine: not detectable			
d. Sulfonamide Group: not detectable			


⁵ Note: Some of these compounds may be replaced by others according to surveys carried out and this must be communicated to this Secretariat sufficiently in advance.

		Page 18
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007


Attributes	Compliance		Observations
	YES	NO	
e. Nitrofurans: not detectable			
I. Phenol: not detectable			
4. Genuineness Isotopic analysis $^{13}\text{C}/^{12}\text{C}$			Attach copy of result.
From Processing			
1. Quality assurance system Registers relative to parameters defined for each CCP (Critical Control Point) to be controlled.			
2. Processing stages:			

		Page 19
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

Attributes	Compliance		Observations
	YES	NO	
G. <u>Reception of raw material</u>			
A1. Verify registers of raw material suppliers.			Ex.: field charts (sanitary handling, operations carried out, products applied and moment of application) and charts corresponding to the extraction room where extraction took place (room number, drums extracted and batch number).
A2. Verify registers of periodical supplier audits.			Attach copy of the last two audits.
A3. Verify warehouse and stockroom Operations Book (SENASA Resolution Nr 186/03)			
H. <u>Storage</u>			
Verify that the drum storing sector is in good hygienic and safety conditions.			


		Page 20
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

Attributes	Compliance		Observations
	YES	NO	
I. Processing⁶			
C1. Heating technique: verify that temperature control registers are between 50 and 60°C.			Verify register/s, record date and result.
C2. Verification of registers of SSOP applied at the plant.			
J. Fractioning			
D1. Verify compliance with any of the methods established in the container control protocol.			Specify the control carried out.
D2. Verify the processing and fractioning rooms Operations Book (SENASA Resolution Nr 186/03)			

⁶ Operations must be registered in all process stages.


		Page 21
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

A. NOTE 1: ALL ANALYSES MUST BE CARRIED OUT BY LABORATORIES OFFICIALLY AUTHORIZED FOR THE ABOVE MENTIONED STUDIES, USING RECOGNIZED OFFICIAL METHODS AND CALIBRATED EQUIPMENT AND INSTRUMENTS WITH THEIR CORRESPONDING CERTIFICATES.

B. NOTE 2: IF THE COMPANY CARRIES OUT OTHER PRODUCT ANALYSES NOT MENTIONED BEFORE, SAID ANALYSES MUST BE SPECIFIED IN THIS AUDITOR'S APPROVAL REPORT.

		Page 22
Auditor's Signature	Auditor's Name	

Secretariat of Agriculture, Livestock, Fishing and Food Undersecretariat of Agricultural Policy and Food National Food Administration	AUDITOR'S APPROVAL	
Code: SAA012	Version: 01	03.12.2007

CONCLUSIONS

Persons from the audited company interviewed: -----

On behalf of the auditing company

In agreement, on behalf of the audited company

Signature, name and seal

Signature and name

		Page 23
Auditor's Signature	Auditor's Name	