

FOOD SAFETY MANAGEMENT SYSTEM



P.2.1 PRODUCT SPECIFICATIONS

Revision 17

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Date: 29/05/2025

1. GENERAL INFORMATION

NAME OF THE PRODUCT	Poppy Seeds
VARIETY	<i>Papaver somniferum nigrum</i>
COUNTRY OF ORIGIN	Spain
INTENDED USE	This product is sold "business to business" as a bakery ingredient (not intended to be sold directly to final consumers). To reduce the opium alkaloid content before being placed on the market for the final consumer, this product needs to undergo one or several physical treatments such as washing, soaking, grinding, and specially a heat treatment using temperatures above 135°C, but preferably above 200°C (or lower temperature (e.g. 100°C) if this is in combination with the previously mentioned treatments)*. It is responsibility of the food business operator supplying the seeds to the bakery manufacturer or to any other food business operator that places seeds or seeds products on the market for the final consumer to guarantee that these have the appropriate information to meet the limits set in the Regulation 2021/2142. After the mentioned treatments or other demonstrated appropriate treatments of alkaloids reduction, its common uses are, among others, toppings, and confectionery fillings for baked products. (See 4.5 Alkaloids)
PROCESS	The poppy crop is received and separated using a trommel screen; then, it is pre-cleaned using destoners and gravity tables. Finally, the pre-cleaned seeds are cleaned using optical sorters. The result is a 99,90% pure product.

*Commission recommendation 2014/662/EU of September 2014

2. PHYSICAL CHARACTERISTICS

COLOUR	Black/Blue
TASTE	Typical poppy seed taste.
APPEARANCE	Kidney shaped
SIZE	Between aprox. 0,88 mm and 1,1 mm
SPECIFIC WEIGHT	Around 580 kg/m3
HUMIDITY	≤ 10%
a_w	0,50 - 0,70
PURITY	≥ 99,90%*

*Units of "not poppy seeds" (pieces of straw, other seeds,...) per 100 units of poppy seeds.

3. NUTRITIONAL VALUES (typical values per 100 g)

ENERGETIC VALUE	2167/525 kJ/kcal	Calculated
FAT of which saturated monounsaturated polyunsaturated	42.33 g 5.58 g 10.73 g 26.02 g	Analysis
CARBOHYDRATES* of which total sugars added sugars	2.90 g 1.60 g 0 g	Calculated Analysis Calculated
FIBER	22.80 g	Analysis
PROTEIN	21.77 g	Analysis
SALT	0.010 g	Analysis
SODIUM	4.02 mg	Analysis
ASH	6.93 g	Analysis
CALCIUM	1.70 g	Analysis
POTASSIUM	0.5 g	Analysis
IRON	61 mg	Analysis
VITAMIN D	< 1.0 µg	Analysis
CHOLESTEROL	0 mg	Literature* ²
TRANS FAT	0 mg	Literature* ²

*Carbohydrates = Available carbs. "Carbohydrates" do not include fiber. Total carbs = 2.90 + 22.80 = 25.7

*²: USDA FoodData Central

4. CHEMICAL PARAMETERS

4.1 HEAVY METALS	
Cadmium	< 1 mg/kg* (Regulation 2023/915)
Lead	< 1 mg/kg
Mercury	< 0,02 mg/kg (Regulation 396/2005)
4.2 PESTICIDES	
According to EU regulations (Regulation 396/2005)	
4.3 ALLERGENS	
Free of LeDa (ALBA) list	
4.4 AFLATOXINS	
Aflatoxin B1	< 2 µg/kg (Regulation 2023/915)
Aflatoxins (B1, B2, G1, G2)	< 4 µg/kg (Regulation 2023/915)
4.5 ALKALOIDS* ²	
Alcaliber analyzes a sample of each batch. Each lot is composed of one variety of seeds, depending on which this will have a certain distribution of alkaloids. The possible alkaloid contamination in the product is heterogeneous. The batch data is only to orientate and can only represent the expected distribution of the different alkaloids associated with each variety of seeds.	
ALCALIBER has available for its customers an analytical report of each lot, information on minimum, maximum and average values of each variety and the technical support to explain on how to interpret this data.	

*Commission Regulation (EU) 2023/915) regarding maximum levels of cadmium in certain foodstuffs sets a maximum limit of 1,20 mg/kg of Cadmium in poppy seeds.

²These poppy seeds come from poppy varieties specifically grown for pharmaceutical purposes. The natural presence of traces of alkaloids (morphine, codeine, thebaine, ...) is unavoidable due to the dust released from the plant during the harvest and storage. Depending on the variety, the distribution of the alkaloids will vary, and levels cannot be guaranteed because of the product heterogeneity. In order to comply with EU Regulation 2021/2142 (only applicable to companies that place products on the European Union market), the specific recipe and the physical treatment/s (washing, soaking, heat treatment, grinding, etc.) must be validated on a case-by-case basis in order to ensure the compliance of the mentioned limits (20 mg/kg of morphine equivalents*³ for poppy seeds place on the market for the final consumer or 1,5 mg/kg of morphine equivalents*³ on bakery products)

*³Morphine equivalents = sum of morphine + (0,2 x codeine)

5. MICROBIOLOGICAL PARAMETERS

These are **typical values**. It must be taken into account that these seeds are a raw agricultural product that grows outdoor and it does not receive a thermal processing or any other method of sterilization; no matter the good agricultural practices or the good manufacturing practices, it is difficult to guarantee no contamination on the field from rodents, birds, insects, etc. In any case, the low moisture and low water activity does not support microbiological growth.

MICROBIOLOGICAL STANDARDS	
Total Plate Count	< 10 ⁶ ufc/g
Yeasts & Molds	< 10 ⁴ ufc/g
Enterobacteriaceae	< 10 ⁵ ufc/g
Escherichia coli	< 10 ufc/g
Salmonella	Absent in 25g
Listeria	< 10 ucf/g
Bacillus cereus	< 10 ³ ucf/g

6. OTHER INFORMATION

- FREE OF INSECTS (FUMIGATED WITH ALUMINIUM/MAGNESIUM PHOSPHIDE)
- PASSED THROUGH A METAL DETECTOR (FOR MORE INFORMATION, ASK FOR SENSITIVITIES)
- NO GMO
- KOSHER CERTIFIED
- SUITABLE FOR VEGETARIANS
- SUITABLE FOR VEGANS
- SUITABLE FOR COELIAC

7. PACKAGING AND LABELLING

PACKAGING	NET WEIGHT	USUAL PRESENTATION*
THREE LAYERS PAPER BAGS	25 kg	8-9 layers pallets
	50 lb	9 layers pallets
	12,5 kg	-
BIG BAGS	1000 kg	With or without pallet
	500 kg	With or without pallet

*There is always a cardboard layer between the pallet and the packaging; the pallets are wrapped with a plastic wrap.

PAPER BAGS	BIG BAGS
Alphanumeric code length 9 Name of the product: Origin: Net weight: Manufacturer: Best before:	 Spanish Poppy Seeds by ALCALIBER DARK BLUE POPPY SEED Lot: COMXX-XXX BIG BAG: X NET WEIGHT: X Kg BEST BEFORE: XXX-XXX KEEP IN A COOL DRY PLACE

*Usually the label layout (especially in the case of paper bags) is agreed with the client depending on their requirements. The label shall contain, **at least**, the name of the company (either Alcaliber or the customer's name), the lot number and the name of the product.

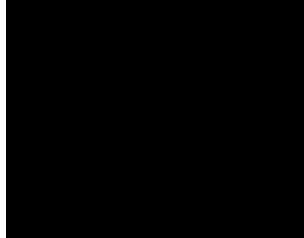
LOT CODE: COM (commercial) **XX** (two last digits of the crop year) – **YY** (correlative number within the crop year)

I.E: **COM25-001** (first commercial lot of the crop 2025)

8. STORAGE

- **KEEP IN A COOL AND DRY PLACE**
- **24 MONTHS OF SHELF LIFE FROM THE HARVEST (JULY EACH YEAR), PLUS A 12 MONTH GRACE PERIOD, TO BE ABLE TO GIVE THE PRODUCT 24 MONTHS FROM THE PACKAGING DATE. DURING THAT PERIOD OF GRACE, THE PRODUCT IS STILL SAFE AND IT CAN BE CONSUMED, BUT THE ORGANOLEPTIC PROPERTIES MIGHT NOT REMAIN "TYPICAL".**

Signed:



29/05/2025

Lois Fraiz Ares

Quality Assurance Manager