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# AROMAS

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Sosa Ingredients

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## The physiology of taste

Flavour and taste, along with touch and smell, bring us physically closer to the pleasure of the senses. The touch is a way of informing ourselves about material items and is based on physical contact, on sensations related to pressure and temperature, however, taste and smell are chemical. Using these senses we detect molecules in particular.

To notice flavours, we rely on the receptors on the tongue, the palate and the pharynx. In total, we have around ten thousand receptors on the so-called taste buds, although there are people that have a greater number (up to 30,000), and that's where their improved ability to perceive flavours lies.

The receptor cells are connected to the nerve fibres in such a way that the impulses generated reach the brain via one of the four cranial nerves and that's where the signals become what we call flavour.

The number of receptors decreases with age, in such a way that a young person can taste the sweetness of a water solution containing 1 gram of sugar per litre, while a 70-year-old needs ten times more sugar to perceive it.

We could say that taste is related to the basic sensations of flavour such as sweet, savoury, acidic and bitter. These sensations are perceived in an irregular way on the tongue: sweet particularly on the tip of the tongue, bitter on the back part and savoury and acid on both sides. We can also talk about umami, which is linked to proteins. It is related to monosodium glutamate, has no identity as a flavour, rather it enhances others.

However, it is actually when the aromas are involved through the sense of smell that the full flavour of food is perceived. Therefore, when we have a cold we can't taste the flavour of food. It's difficult to distinguish two types of jam if we hold our nose, and it's easy to imagine how little is left of a coffee, chocolate bar or wine if we don't detect the aroma.

In fact, our smell is our strongest sense at birth. A baby uses it to recognise its mother. It is estimated that between 70 and 80% of the sensations we perceive as if it were flavour actually depend on the aroma of the food. This can reach the sense of smell via the nostrils like the connection with the mouth cavity when chewing and swallowing.



## Aromatic substances

In theory, the range of scents and flavours could be as extensive as the range of chemical substances or better still as the number of mixtures in various proportions that we can produce with the multitude of chemical molecules capable of interacting with our smell and flavour sensors. It is believed that it is possible to perceive up to 100,000 different scents with the 1,000 different receptors in our nose.

To detect a substance using our sense of smell, we need two conditions:

1. It must be volatile (molecules that individually penetrate the nostrils).
2. It must be a molecule whose structural properties (shape, polarity, etc.) give it the ability to act upon the olfactory receptors, i.e., it must be what we call an aromatic substance.

## Aromas in haute cuisine

Haute cuisine does not use aromas to replace raw materials like industry does as, by definition, haute cuisine must have the power to purchase the best raw materials but for different purposes.

- The need to emphasize a flavour that has diminished after the cooking or production process (for example, a hint of fresh rosemary in a sauce or stew, after cooking).
- Providing a nuanced flavour without the same texture (for example, providing the flavour of black pepper without adding unpleasant peppercorns or emphasizing a citric note in a fish dish without adding citrus juice or lemon rind).
- Enhancing a flavour that has not been well defined because by nature it is instable (flavourless watermelon gazpacho).
- Enriching a product with subtle aromatic notes (chocolate ice cream with ginger).
- Create olfactory ambiances in a room or on a plate using an aromatic agent.

Aromas improve a cook's sensory analysis. The more sensory training, the better the ability to analyse the dishes themselves.

Aromas also help to develop flavour pairings in an abstract and non-intuitive way prior to production of the dish.

In general, haute cuisine should use the most natural aromas possible, but should not disregard the many aromas identical to natural ones that are true works of art.



## Types of aromas

### Liquid aromas

Hydrosoluble liquid aromas are formed using aromatic mixtures in a glycerin and inverted sugar base.

Liposoluble liquid aromas are formed using aromatic mixtures in a refined oil base.

Both hydrosoluble and liposoluble are made on the basis of making the concentration of aromatic substances adaptable to direct use.

These can be applied to: aqueous bases - the hydrosoluble ones, or fatty bases - the liposoluble ones.

### Aroma pastes

They are combinations of concentrated ingredients with the addition of aromas and colourants, mainly natural, adding a glucose base.

These hydrosoluble aromas are generally applicable to ice cream making, although they can be applied to recipes like creams and mousses, etc.

### Powder aromas

They are produced with a maltodextrin base adding an aroma using impregnation or spray drying. They are used in preparations for we mainly need solids, such as snack coatings or in marinades. It is not recommended in pure fats because the maltodextrin base does not dissolve in the fat phase.



Aroma pastes



Powder aromas

Liquid aromas

## Liposolubles

### Rosemary oil

Code	Ingredient	Brand	g	%	g/kg
	Sunflower oil		200	100	1000
38384	Liposoluble rosemary flavouring	Sosa	20 drops		
	<b>For 202 g</b>		<b>Total 200</b>		<b>1000</b>



Mix the oil with the flavouring and stir well. Reserve.



## Hydrosolubles

### Coconut marshmallow

Code	Ingredient	Brand	g	%	g/kg
	Water (1)		90	7,38	73,77
	Coconut liquor		90	7,38	73,77
38461	Albuwhip	Sosa	20	1,64	16,39
34353	Sugar	Sosa	500	40,98	409,84
37305	40 DE liquid glucose	Sosa	100	8,20	81,97
	Water (2)		200	16,39	163,93
38470	Corn starch	Sosa	100	8,20	81,97
38252	Coconut flavouring	Sosa	15 drops		
	<b>Gelatine mass</b>		120	9,84	98,36
	<b>For 1,2 kg</b>	Total	1220		1000



Mix the water (1) with the Albuwhip and whip it. Aside, mix the sugar, glucose, water (2) and heat up to 130 °C. Add the gelatine mass in and stir well. Pour the syrup on the meringue slowly and keep whipping until reach 40 °C. Add the coconut flavouring and stir for 30 seconds more. Sift some starch in a square frame and fill with the meringue. Sift some more starch on and rest for 48 h. before consumption.

### Gelatine mass

Code	Ingredient	Brand	g	%	g/kg
38670	Beef gelatine powder	Sosa	10	16,67	166,67
	Water		50	83,33	833,33
	<b>For 60 g</b>	Total	60		1000

Combine the gelatine and the water. Let hydrate in the fridge for about 30 minutes. Then melt in the microwave oven or bain marie and put back to the fridge until using.



## Emulsions

### Truffle hollandaise

Code	Ingredient	Brand	g	%	g/kg
	Egg yolk		50	24,04	240,38
	Salt		3	1,44	14,42
	Lemon juice		5	2,40	24,04
	Clarified butter		150	72,12	721,15
38379	Natural liposoluble truffle flavouring	Sosa	25 drops		
	<b>For 208 g</b>		<b>Total 208</b>		<b>1000</b>



Mix the egg yolks, salt and lemon juice. Whip in a bain-marie and add the clarified butter until a stable emulsion is obtained. Finally add the truffle flavouring with a whisk.



## Batters

### Walnuts with blue cheese

Code	Ingredient	Brand	g	%	g/kg
36972	Walnut quarters	Sosa	300	50,85	508,47
39026	Snack Cover	Sosa	200	33,90	338,98
	Water		50	8,47	84,75
38772	Maltosec	Sosa	20	3,39	33,90
	Salt		10	1,69	16,95
38990	Blue cheese extract	Sosa	10	1,69	16,95
	<b>For 590 g</b>		Total 590		1000



Fill a spray bottle with water. Place 300 grams of walnuts in the Confi Kit. Roll the fruit. Bear in mind that the ideal rotation speed varies according to the size of the fruit chosen. Sprinkle half a spoonful of Snack Cover over them and repeat the operation (spraying and sprinkling) until they are well covered, with a thickness of between 1 and 1.5 mm. Fry immediately in preheated to 165 °C oil for 5-8 minutes depending on the type and size of the nut. Drain the fat excess and dry on absorbent paper. Flavour the recapped nuts by placing them, in batches, in a container with lid with the mixture of Maltosec, salt and blue cheese extract, moving energetically so that they are all evenly coated.



## Marinades

### Smoked Kentucky style chicken

Code	Ingredient	Brand	g	%	g/kg
	Boneless chicken thighs		500	51,02	510,20
37475	Mojo picón sauce	Culinary Journey	100	10,20	102,04
37169	Chimichurri sauce	Culinary Journey	100	10,20	102,04
39006	Smoke powder	Sosa	40	4,08	40,82
	Flour Frolla		160	16,33	163,27
38470	Corn starch	Sosa	40	4,08	40,82
37639	Procrunx	Sosa	40	4,08	40,82
	<b>For 980 g</b>		Total 980		1000



Mix the *mojo picón* with the chimichurri and the smoke powder and dip the chicken thighs cut into strips. Leave them to marinate for six hours. Then mix the flour, starch and Procrunx, and flour the marinated thighs, then run through water and flour again in the flour mixture. Deep fry at 160 °C.



## Ice creams

### Raspberry sorbet

Code	Ingredient	Brand	g	%	g/kg
	Raspberry purée		600	45,28	452,83
37643	Prosorbet 100 Cold Natur	Sosa	100	7,55	75,47
34353	Sugar	Sosa	180	13,58	135,85
39464	Glucose powder	Sosa	30	2,26	22,64
	Water		400	30,19	301,89
37267	Raspberry concentrated paste	Sosa	15	1,13	11,32
	<b>For 1,3 kg</b>		Total 1325		1000



Mix the purée with the concentrated paste, the sugars and the other solids. Mix well with a hand blender and let it rest for at least 6 hours. Churn.



## Pastry creams

### Amarena pastry cream

Code	Ingredient	Brand	g	%	g/kg
	Milk		800	44,69	446,93
	Cream 35%		200	11,17	111,73
	Egg yolk		200	11,17	111,73
34353	Sugar	Sosa	150	8,38	83,80
37297	Gelcrem Hot	Sosa	90	5,03	50,28
37100	Amarena concentrated paste	Sosa	250	13,97	139,66
	Butter 82%		100	5,59	55,87
	<b>For 1,79 kg</b>		<b>Total</b>	<b>1790</b>	<b>1000</b>



Mix all the ingredients at room temperature except the amarena concentrated paste and the butter. Bring to a boil. Once the stove is off, add the compound and the butter and blend with the *minipimer* until you get a smooth and shiny cream. Keep in the fridge.



## Doughs

### Mandarin Santiago tart

Code	Ingredient	Brand	g	%	g/kg
34353	Sugar	Sosa	200	28,25	282,49
36883	Marcona almond flour	Sosa	200	28,25	282,49
	Egg yolk		45	6,36	63,56
38461	Albuwhip	Sosa	23	3,25	32,49
	Mandarin purée		210	29,66	296,61
37420	Mandarin concentrated paste	Sosa	30	4,24	42,37
	<b>For 708 g</b>		Total 708		1000



Mix the mandarin purée with Albuwhip and the yolks and blend. Add the remaining ingredients and stir well.

