PRODUCT SPECIFICATION

DATE OF ISSUE 15-04-2021
PRODUCTION: 28432512

Ascorbic acid (E300)
NATUURLIJK NATUURLIJK PRODUCT CODE: X1681, X1682, X1683, X1684, X1685

NATUURLIJK NATUURLIJK
special food ingredients

1. PRODUCT IDENTIFICATION

1.1 Supplier product information

Product name	**Ascorbic acid**		
Production	**28432512**		
Product code	**Content**	**EAN**	**Packaging**
X1681	25g	8718309832032	Plastic jar and screw lock cap with warranty seal. Jar = 05 PP Cap = 02 PE-HD
X1682	100g	8718309832049	
X1683	250g	8718309832056	
X1684	1kg	8718309832063	
X1685	12,5kg	8718309832070	Blue bag = 02 PE-HD in box with warranty seal.

1.2 Scientific product information

Single ingredient	
Main use	antioxidant
Chemical name	L-Ascorbic acid
Chemical formula	$C_6H_8O_6$

1.3 Legislative product information

CAS number	50-81-7		
EU food additive	E300		
Country of Origin	China		
Organic products	For the purposes of Article 19(2)(b) of Regulation (EC) No 834/2007, ascorbic acid may be used in the manufacture of processed organic foods.		
Labeling bread products	During the production and baking process, ascorbic acid is broken down and is no longer present in the baked product. This means that it is seen as a technical aid and therefore does not have to be stated on the ingredient declaration of the final product.		

2. PRODUCT INFORMATION

2.1 Physical and Chemical properties

	Unit	**Specification**	**Method**
Appearance		Crystalline powder	
Colour		Off-white	
Assay	%	99.72	
Loss on Drying	%	< 0.4	

Specific Optical Rotation	°	+21.15	
Melting point	ºC	190,5	
pH		2,44	(2% solution in water)
pH		2,35	(5% solution in water)
Molecular mass		176,13	
2.2 Microbiological data			
Total plate count	Cfu/g	100 max	
Yeasts and moulds	Cfu/g	100 max	
E Coli	in 10g	negative	
Salmonella	in 25g	negative	
Staphylococcus	in 25g	negative	
Pseudomonas	in 25g	negative	
2.3 Chemical analyses			
Iron (Fe)	ppm	max. 2	
Arsenic (As)	ppm	max. 1	
Heavy metals	ppm	max. 5	
Oxalic acid	ppm	max. 0.2	
Sulphate ash	ppm	max. 0.1	
Zinc (Zn)	ppm	max. 0,25	
Mercury (Hg)	ppm	max. 0,1	
Lead (Pb)	ppm	max. 2	
Cadmium (Cd)	ppm	max. 1	
Copper (Cu)	ppm	max. 5	
2.4 Nutritional Information			
2.4.1 Nutritional Values			
Energy	kJ/100g	0	
Energy	kcal/100g	0	
Protein	g/100g	0	
Carbohydrate:	g/100g	0	
Of which Sugars	g/100g		
Polyols	g/100g		

Starches	g/100g		
Others	g/100g		
Fat:	g/100g	0	
Of which Saturated	g/100g		
Mono-unsaturated	g/100g		
Poly-unsaturated	g/100g		
Transfatty acids	g/100g		
Cholesterol	mg/100g		
Water	g/100g		
Organic acid	g/100g		
Dietary fiber	g/100g	0	
2.4.2 Minerals			
Sodium (Na)	mg/100g	0	
Sodium chloride (NaCl)	mg/100g	0	

3. FOOD INTOLERANCE

3.1 Allergens

Yes = √ / No = X	**Contains**	**Direct Contamination**	**Cross-Contamination (Risk)**
Celery and products thereof	X		
Cereals containing gluten and products thereof (i.e. wheat, rye, barley, oats, spelt, kamut or their hybridised strains)	X		
Crustaceans and products thereof	X		
Eggs and products thereof	X		
Fish and products thereof	X		
Lupine and products thereof	X		
Milk and products thereof (including lactose)	X		
Molluscs and products thereof	X		

Mustard and products thereof	X		
Nuts and products thereof (i.e. almonds, hazelnuts, walnuts, cashews, pecan nuts, Brazil nuts, pistachio nuts, macadamia nuts and Queensland nuts)	X		
Peanuts and products thereof	X		
Sesame seeds and products thereof	X		
Soybeans and products thereof	X		
Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre (expressed as SO2)	X		

3.2 Suitability for other diets:

Coeliacs	√	Lactose intolerant	√
Vegetarian	√	Vegans	√

3.3 GMO Declaration:

The product does not have to be labelled as containing genetically modified organisms and it does not have to be labelled as being derived from genetically modified organisms according current European Legislation.

3.4 Irradiation:

This product is not irradiated according current European Legislation.

4. STORAGE CONDITIONS

Storage conditions	In closed original packaging. Must be kept cool and dry in a well-ventilated place.
Shelf life	36 months after production, under the above mentioned conditions.

5. FOOD SAFETY

5.1 Hygiene:

This product is produced in a facility wit an on HACCP based food safety system.

5.2 Identifications of dangers:

Classification of the substance (Regulation (EC) No 1272/2008)	Not classified. (non-hazardous)

6. EXTENDED PRODUCT INFORMATION

6.1 Usage

Ascorbic acid is used as an antioxidant. It prevents discoloration of fruit and vegetable preserves and fruit purees.

Dosage: 0,5 grams for 1 liter of cold beverages

Ascorbic acid as a bread improver increases the gas-holding capacity of wheat dough and thus increases the airiness of the bread. A weak flour requires more ascorbic acid than a strong flour (gluten quality). The more air that is incorporated during the kneading process, the more effective the ascorbic acid.

Example of the influence of ascorbic acid on bread dough and bread:

Bread dough	
Too little ascorbic acid	**Too much ascorbic acid**
Weak Too stretchy Soft Sticky, difficult to process mechanically	Stiff Short Tough Difficult to process mechanically

Bread	
Too little ascorbic acid	**Too much ascorbic acid**
Irregular pores Small volume Soft crust	Large pores Small volume, wild rupture Hard crust

Ascorbic acid is currently the only permitted oxidatively active flour improver in The Netherlands. We can say that all bread flour for the Dutch bakery is treated with ascorbic acid. Ascorbic acid itself is a reducing agent that is converted into dehydroascorbic acid during kneading using enzymes and oxygen. Dehydro-ascorbic acid is actually the oxidatively acting flour improver.

During the baking process, dehydro-ascorbic acid is broken down and is no longer present in the baked product. This means that it is seen as a technical aid and therefore does not have to be stated on the ingredient declaration of the end product.

Dosage in bread products:

Ascorbic acid 0.003% on the flour weight to improve gluten quality.

The optimal addition mainly depends on the extraction. For flour, the addition is around 2-4 grams per 100 kg (0.002-0.004%). With half-meal and wholemeal flour, this varies from 3-8 grams per 100 kg (0.003-0.008%).

The maximum amount permitted by the Commodities Act is 10 grams per 100 kg flour (0.01%).

6.2 Dictionary

NL	The Netherlands	Ascorbinezuur
GB	Great Britain (UK)	Ascorbic acid
DE	Germany	Askorbinsäure
FR	France	Acide ascorbique
ES	Spain	Ácido ascórbico
PT	Portugal	Ácido ascórbico
IT	Italy	Acido ascorbico
DK	Denmark	Ascorbinsyre
NO	Norway	Askorbinsyre
SE	Sweden	Askorbinsyra
FI	Finland	Askorbiinihappo
IS	Iceland	Askorbínsýra
CZ	Czech Republic	Kyselina askorbová
SK	Slovak Republic	Kyselina askorbová
HU	Hungary	C-vitamin
HR	Croatia (Hrvatska)	Askorbinska kiselina
GR	Greece	Ασκορβικό οξύ
SI	Slovenia	Askorbinska kislina
PL	Poland	Kwas askorbinowy
RO	Romania	Acid ascorbic
BG	Bulgaria	Аскорбинова киселина
RU	Russian Federation	Аскорбиновая кислота
TR	Turkey	Askorbik asit

7. DISCLAIMER

Although we take great care in setting up this product specification, we cannot accept any liability for the completeness and fully accurateness of the information provided. The content of this Product Specification is completed to the best of our knowledge.

This document does not dismiss the user of his legal obligations with respect to food safety.

This product specification replaces any previously issued specifications.