

# Malic Acid SaporePuro

## 01 / IDENTITY AND CHARACTERISTICS

|                             |                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product code</b>         | SPAM                                                                                                                                         |
| <b>Available formats</b>    | SPAM50 · 50 g · Stand-UP<br>SPAM100 · 100 g · Stand-UP<br>SPAM200 · 200 g · Stand-UP<br>SPAM500 · 500 g · Sachet<br>SPAM1000 · 1 kg · Sachet |
| <b>Origin</b>               | ITALY                                                                                                                                        |
| <b>Country of packaging</b> | ITALY                                                                                                                                        |

## The product

White crystalline powder of malic acid, with a characteristic odor, used as a pH regulator, food and feed additive, surface treatment agent, cosmetics, personal care and lab products.

## Ingredients

Malic acid ( $\geq 99,0\%$ )

## Use

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Use and dosage</b></p> | <p>Ice cream and sorbets — Indicative dosage: 0.1–0.3%; base: total weight of the preparation (e.g. fruit sorbet). Suggested in fruit sorbet to regulate perceived acidity and balance sweetness; test taste, pH, texture, and color stability; check impact on crystalline water structure</p> <p>Pastry — Indicative dosage: 0.2–0.5%; base: total weight of the preparation (e.g. jelly or fruit filling). Example: fruit filling in tarts or filled choux to enhance fruit and stabilize pectins; test cohesion, pH, shelf-life, sugar interaction</p> <p>Bakery — Indicative dosage: 0.1–0.3%; base: total weight of the preparation (e.g. fruity sweet dough or filling). Example: dough with fruit or glazes, for more balanced acidic notes and better mouthfeel; test dough elasticity, fermentation, crust color</p> <p>Beverages — Indicative dosage: 0.05–0.2%; base: total weight of the beverage (e.g. fruit-based drink). Suggested in fruity drinks or iced tea to increase acidity, enhance fruity flavor, mask sweetener aftertaste; test pH, aroma stability, shelf-life, sensory perception</p> <p>Confectionery — Indicative dosage: 0.3–0.8%; base: total weight of the mix (e.g. fruit-flavored gummies or hard candies). Example: gummies and hard candies to enhance intense sweet-and-sour profile and prolong fruit sensation; test texture, color stability and decorations</p> <p>Sauces and preparations — Indicative dosage: 0.1–0.4%; base: total weight of the preparation (e.g. sweet-and-sour fruit sauce, chutney). Example: sweet-and-sour sauces to balance sweetness and perceived acidity, improve preservability pH; test pH, viscosity, taste, ingredient compatibility</p> |
| <p><b>Warnings</b></p>       | <p>Causes serious eye irritation. Avoid contact with eyes and skin. Dust explosion hazard. Toxic fumes may develop in case of fire. Do not use iron, zinc, or aluminum containers with aqueous solutions due to risk of hydrogen gas formation. Do not eat, drink, or smoke during use. Keep away from food, feed, and beverages.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Storage and packaging

|                                  |                                                                                                                                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Shelf-life</b></p>         | <p>36 months from production date.</p>                                                                                                 |
| <p><b>Storage conditions</b></p> | <p>Keep the container tightly closed in a dry, well-ventilated place, away from food, feed, beverages, and incompatible materials.</p> |

|                                  |                                                                                                                                                                                                                                                                     |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Packaging materials</b>       | bag: LDPE90 label: PAP22                                                                                                                                                                                                                                            |
| <b>Environmental indications</b> | PLASTIC Check your local regulations It is declared that the materials used for the product packaging are in accordance with European Union regulations, and suitable for direct contact with food. The original declaration of conformity is available on request. |

## Declarations

NON-GMO: this product does not contain, is not composed of, and is not obtained from genetically modified organisms, in compliance with Regulation EC 1829/2003 and Regulation EC 1830/2003 and subsequent amendments. Product is not dangerous under normal conditions of use.

PESTICIDES AND CONTAMINANTS: compliant with Regulation EC 396/2005 for maximum residue levels (MRLs) of pesticides and Regulation EU 915/2023 for the presence of heavy metals, mycotoxins, and process contaminants.

GLUTEN FREE: in accordance with Regulation EC 828/2014 it can be labeled as "Gluten free" as the product may contain accidental gluten contamination up to a maximum of 20 mg/kg.

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## 02 / VALUES AND SPECIFICATIONS

### Nutritional information per 100 g

| Parameter              | Value |
|------------------------|-------|
| Energy (kJ)            | 1004  |
| Energy (kcal)          | 240   |
| Fats (g)               | 0     |
| of which saturates (g) | 0     |
| Carbohydrates (g)      | 0     |
| of which sugars (g)    | 0     |
| Fiber (g)              | 0     |
| Protein (g)            | 0     |
| Salt (g)               | <0,01 |

### Analysis and specific parameters

| Category / parameter                                      | Specification   | Unit               | Method |
|-----------------------------------------------------------|-----------------|--------------------|--------|
| Chemical-physical<br>Dimensional particle<br>distribution | $\leq 70$       | $\mu\text{m}$      |        |
| Chemical-physical<br>Moisture content                     | 0.12            | %                  |        |
| Chemical-physical<br>Title                                | $99.5 \pm 0.75$ | %                  |        |
| Chemical-physical<br>Melting Point                        | $130 \pm 2$     | $^{\circ}\text{C}$ |        |
| Chemical-physical<br>Fumaric acid                         | <1              | %                  |        |
| Chemical-physical<br>Maleic acid                          | 0.05            | %                  |        |
| Chemical-physical<br>Residue on ignition                  | 0.1             | %                  |        |

| Category / parameter                                     | Specification | Unit     | Method |
|----------------------------------------------------------|---------------|----------|--------|
| Chemical-physical<br>Specific optical rotation<br>(25°C) | 0.00 ± 0.10   | °        |        |
| Chemical-physical<br>Granulometry through 25<br>mesh     | Min. 99       | %        |        |
| Chemical-physical<br>Granulometry through<br>100 mesh    | <5            | %        |        |
| Chemical-physical<br>Heat of combustion                  | 320           | kcal/mol |        |
| Chemical-physical<br>Viscosity                           | 6.5           | Mpa.s    |        |
| Chemical-physical<br>Solution heat                       | -4.9          | kcal/mol |        |
| Chemical-physical<br>Insoluble in water                  | <0.1          | %        |        |
| Chemical-physical<br>Decomposition<br>Temperature        | 175 ± 5       | °C       |        |
| Chemical-physical<br>Solubility in H2O (20°C)            | 55.5          |          |        |
| Microbiological<br>Yeasts and molds                      | <10           | CFU/g    |        |
| Microbiological<br>Coliforms                             | <10           | CFU/g    |        |
| Microbiological<br>Fecal Coliforms                       | <10           | CFU/g    |        |
| Microbiological<br>Salmonella                            | Absent/25g    |          |        |
| Microbiological<br>Bacteria content                      | <10           | CFU/g    |        |
| Heavy metals<br>Heavy Metals                             | <20           | ppm      |        |
| Heavy metals<br>Lead                                     | <2            | ppm      |        |
| Heavy metals<br>Arsenic                                  | <3            | ppm      |        |
| Heavy metals<br>Mercury                                  | <1            | ppm      |        |

## Malic Acid SaporePuro

03 / ALLERGENS

### Allergens and derived products

Three distinct pieces of information: presence in the product, presence in the facility, and risk of cross-contamination. “To be verified” does not indicate absence.

| Category                      | In the product | In the facility | Risk of cross-contamination |
|-------------------------------|----------------|-----------------|-----------------------------|
| Cereals containing gluten     | No             | No              | No                          |
| Crustaceans                   | No             | No              | No                          |
| Eggs                          | No             | No              | No                          |
| Fish                          | No             | No              | No                          |
| Peanuts                       | No             | No              | No                          |
| Soybeans                      | No             | No              | No                          |
| Milk (including lactose)      | No             | Yes             | Yes                         |
| Tree nuts                     | No             | No              | No                          |
| Celery                        | No             | No              | No                          |
| Mustard                       | No             | No              | No                          |
| Sesame seeds                  | No             | No              | No                          |
| Sulphur dioxide and sulphites | No             | No              | No                          |
| Lupin                         | No             | No              | No                          |
| Molluscs                      | No             | No              | No                          |

May contain traces of MILK as the product is packed in a facility that handles MILK and milk derivatives.

Categories from Annex II of Reg. EU 1169/2011. For cereals and tree nuts, species and any exemptions must be specified in the notes. For sulphites, the evaluation refers to the applicable threshold expressed as SO<sub>2</sub>.

### Further information

The details in this sheet, while accurate and prepared to the best of our current knowledge, are for informational purposes only and release Gioia Group s.r.l. from any liability regarding improper use of the referenced product.