

**Product Information Sheet  
Malic Acid, FCC - Granular  
300000000195**

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## 1. Supplier Information

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Name: Tate & Lyle  
Address: 2200 E Eldorado  
Decatur, IL 62525  
USA  
Main Phone: 1-217-423-4411  
Main Fax: 1-217-421-2628  
E-mail: orders@tateandlyle.com

## 2. Emergency Contacts

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Normal Business Hours: 1-800-526-5728  
After Hours Emergency: 1-217-972-2230  
Fax: 1-217-421-2628

## 3. Product Information

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**Common Name:** Malic Acid  
**Material Number:** 28000007  
**Specification Number:** 300000000195  
**CAS Number:** 6915-15-7  
**EINECS Number:** 230-022-8  
**European Food Additive Number:** E296  
**21 CFR References:** 21CFR184.1069

**Food Grade:** Yes  
**Appearance:** Powder  
**Color:** White  
**Odor:** None

## 4. Regulatory Status

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- Complies with FDA Regulation 21CFR.184.1069

## 5. Ingredient Statement

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Malic Acid

## 6. Quality Documents

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Quality documents (Specification, Technical Data Sheet, MSDS & Nutritional) available upon Request.

## 7. Kosher/Halal Status

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Certified Kosher: Yes

Certified Kosher for Passover: Yes

The above-mentioned ingredient or its components is certified Kosher by:

- Orthodox Union (OU)

Certified Halal: Yes

## 8. Allergen Status

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If present in this Tate & Lyle ingredient, allergens will be denoted as "Present" in the table below:

Allergen	Status
	Absent

Meaning of Present/Absent/Present-Exempt

Present - Intentionally added during the production process.

Absent - Not intentionally added during the production process.

Present-Exempt - Intentionally added during the production process, however have been given exemption from being required to be labeled on the final package.

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The above list of allergens is in accordance with all applicable EU and US legal requirements.

Additional allergen information:

- Although all reasonable care has been taken in managing allergen risk, the above statement should not be considered as a guarantee or claim of "free of...".
- The above-mentioned ingredient does not originate from substances having allergenic properties for which labeling is required as defined in the Food Allergen Labeling and Consumer Protection Act of 2004 (Public Law 108-282, Title II). Specific allergens listed in this Act are milk, eggs, fish (e.g., bass, flounder, cod), Crustacean shellfish (e.g., crab, lobster, shrimp), tree nuts (e.g., almonds, walnuts, pecans), peanuts, wheat, and soybeans.

## **9. Sulfur Dioxide and Sulfite Level**

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The sulfur dioxide and sulfite level for above-mentioned ingredient or its components is:

Package  
Bag, Super Sack

Sulfur Dioxide and Sulfite Level

## **10. Gluten Status**

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This product is not either originating from gluten containing cereals or not identified as containing gluten and complies with the applicable EU and US legal requirements based on real-time PCR gluten test methodology. It can be safely used in foodstuffs for people intolerant to gluten.

## **11. GMO Statement**

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Malic Acid and Fumaric Acid are manufactured using Maleic Anhydride as the starting material. Maleic Anhydride is a by-product of the petrochemical industry. As this is a completely synthetic process, GMO concerns are not applicable to either Malic or Fumaric Acid.

Tate & Lyle certifies that the above mentioned product is produced from non GMO sources therefore it is not considered to be genetically modified organisms under EC regulations 1829 and 1830/2003.

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## **12. Irradiation, ETO and Sewage Sludge**

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The above-mentioned ingredient or its components have not been produced and handled with the use of:

1. treatment with ionizing radiation
2. exposure to ethylene oxide
3. sewage or sludge.

## **13. Organic Statement**

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- Products manufactured at this Tate & Lyle facility are not designated as Organic.

## **14. Diet Suitability**

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Vegetarian: Suitable

Vegan: Suitable

Ovo-Vegetarian: Suitable

Lacto-Vegetarian: Suitable

Lacto-Ovo-Vegetarian: Suitable

## **15. Bovine Spongiform Encephalopathies (BSE) /Transmissible Spongiform Encephalopathies (TSE)**

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1. This ingredient does not contain ingredients of animal origin.
2. If processing aids are contained in this ingredient, the processing aids are not derived from animal origins.
3. Prior to the manufacture of this ingredient, no ingredients of animal origin are present in equipment.

## **16. Sudan I – IV Dyes Content**

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- The above-mentioned ingredient or its components do not contain Sudan azo dyes (this includes Sudan I, Sudan II, Sudan III and Sudan IV, which is also known as scarlet red).

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## 17. Country of Origin

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The above-mentioned ingredient or its components is manufactured in the following country:  
United States

## 18. Shelf Life

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The expected shelf life for the ingredient based on being stored under the proper storage conditions:

<u>Package</u>	<u>Shelf Life</u>
Bag, Super Sack	1,825 Days

## 19. Transportation Information/Storage Conditions

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### Storage Conditions

<u>Container</u>	<u>Storage Temperature</u>	<u>Storage conditions to achieve maximum shelf life</u>
Bag, Super Sack		Store at ambient temperature and humidity.

## 20. Lot Code Explanation

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Batch Numbering Scheme:

### PACKED PRODUCTS

PPYYM9NNNN

PP - Plant ID

YY - Last two digits of the year (2012)

M - Month (A, B, C, D, E, F, G, H, I, J, K, L for Jan - Dec)

9NNNN - Plant related sequential number

Example: KO12G91130

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KO - Plant ID for Tate & Lyle Netherlands  
12 - Last two digits of the year (2012)  
G - Month, July  
91130 - Plant related sequential number

## BULK DELIVERIES

PPYYMNNNNN

PP - Plant ID  
YY - Last two digits of the year (2012)  
M - Month (A, B, C, D, E, F, G, H, I, J, K, L for Jan - Dec)  
NNNNN - Plant related sequential number

Example: KO12G00001

## **21. Certificate of Analysis**

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- Certificates of Analysis are available by request.

## **22. current Good Manufacturing Practices (cGMP)**

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- The process used for the production of this product is operated based on Tate & Lyle's procedures, quality guidelines, HACCP programs and Good Manufacturing Practices. This operation complies with the FDA Good Manufacturing Practices detailed in 21 CFR 110 for Food Manufactures, and those referenced in the European Commission Regulation (EC) No. 852/2004 on hygiene of foodstuff.

## **23. Guarantee (Continuing)**

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- Available upon request.

## **24. HACCP/Flowchart**

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- Available upon request.

## **25. Audit Information**

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- Third Party audits are performed annually at Tate & Lyle locations. Information available upon request.

## **26. Emergency/Recall Procedures**

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- Please be assured that Tate & Lyle has a written Recall Procedure. In the event of an actual recall, Tate & Lyle will notify all customers who have received affected product. Mock Recalls are conducted at least annually.

## **27. Bioterrorism**

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- Tate and Lyle is in compliance with 21 CFR Part 1-Registration of Food Facilities, and Maintenance and Inspection of Records for Foods, under Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Due to concerns with security, our legal department limits giving out the plant number unless there is an imperative border crossing issue.

## **28. Pest Control**

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- Tate & Lyle employs outside contractors to provide routine pest control service.

## **29. Pesticides**

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- Tate & Lyle has an ongoing pesticide monitoring program.

## **30. Proposition 65**

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- The State of California enacted the Safe Drinking Water and Toxic Enforcement Act of 1986 ("Proposition 65"), which "prohibits any person in the course of doing business from knowingly and intentionally exposing any individual to a chemical known to the State of California to cause cancer or reproductive toxicity without first giving clear and



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reasonable warning to such individuals." In our effort to satisfy the requirements of this law, independent laboratory analyses were obtained for those products which we manufacture or formulate for sale to you. The results of this analysis confirmed that there are no chemicals regulated under Proposition 65, other than naturally occurring chemicals, detectable in our products using standard analytical methods.