

FSS Malic Acid
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Date: 09 / 11 / 2024

Version: 7

Cancels and replaces version: 6

SECTION 1. IDENTIFICATION

Product Name/Identifier	FSS Malic Acid
Product Code	FSSD22001
Recommended Use	Ingredients/Raw materials used in the manufacturing of Cosmetic Products'
Restrictions on Use	None
Supplier/Manufacturing Site	Formulator Sample Shop, LLC
Address	135 Joshua Court Lincolnton, NC 28092, USA
Telephone No. (24hrs)	1-704-276-7540

Emergency Telephone #	1-704-276-7540 (Mon-Fri: 8:00AM – 5:00PM EST)
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SECTION 2. HAZARD(S) IDENTIFICATION

Classification of the Substance or Mixture:

 Eye Irritant, Category 2A
 Combustible Dust

 H319: Causes serious eye irritation
 May form combustible dust concentrations in air

Labeling Elements:

Pictograph:


Signal Word: Warning

Hazard statements:	H319: Causes serious eye irritation May form combustible dust concentrations in air
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Precautionary statements:	P233: Keep container tightly closed P264: Wash thoroughly after handling P280: Wear protective gloves/protective clothing/eye protection/face protection P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention P402: Store in a dry place P404: Store in a closed container
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Information contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the customer. The company, however, cannot assume any liability or risk involved in the use of its chemical products since the conditions of use are beyond our control. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. We make no warranty of any kind, expressed or implied, other than that the material conforms to the applicable standard specification.

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Other hazards which do not result in classification:

No particular fire or explosion hazard.

By mechanical effect: No particular hazards.

By hygroscopic effect: No particular hazards.

US NFPA 704 (National Fire Protection Association) Hazard Rating System:

Health hazard: Rating 0; Normal Material

Flammability: Rating 0, Will Not Burn

Reactivity: Rating 0, Stable

Other Hazard Information: None

Results of PBT and vPvB assessment:

-PBT: Not applicable

-vPvB: Not applicable

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS**Common Chemical Name:** Malic Acid**Generic name:****Chemical Family:** Acids**Description:** Substance

<u>Substance</u>	<u>CAS Numbers</u>	<u>EC Numbers</u>	<u>Percentage</u>
Malic Acid	97-67-6	202-601-5	100.00%

Formula: Not applicable**SECTION 4. FIRST-AID MEASURES****General:** In all cases of doubt, or when symptoms persist, seek medical attention.**Inhalation:** Move to fresh air from exposure area. Get medical attention for any breathing difficulty.**Skin contact:** Rinse with soap and water. Get medical advice if irritation develops.**Eye contact:** Immediately rinse with plenty of water for at least 15 minutes, while keeping the eyes wide open. Remove contact lenses if worn. Consult with a physician.**Ingestion:** Rinse out mouth and drink plenty of water. Do not induce vomiting. Consult with a physician immediately.

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Protection of first-aiders: No special protection required.

Most important symptoms and effects, both acute and delayed:

Causes serious eye irritation

May cause gastro-intestinal irritation if ingested

SECTION 5. FIRE-FIGHTING MEASURES

Fire and explosion hazards: May form combustible dust concentrations in air

Extinguishing media:

Suitable:

Dry chemicals, foam and carbon dioxide

Not suitable:

Water stream

Fire fighting:

Move container from fire area if it can be done without risk.

Avoid inhalation of material or combustion by-products.

Stay upwind and keep out of low area

Protection for fire-fighters: Boots, gloves, goggles and self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with eyes.

Personal Protective Equipment:

-Protective goggles

Environmental precautions:

Prevent entry into sewers and waterways. Do not allow material to contaminate ground water system

Methods for cleaning up:

Recovery:

Pick up free liquid for Pick up free liquid for recycling or disposal. Residual liquid can be absorbed on an inert material. Sweep or vacuum up any powder and place in a clearly labeled waste container, avoiding dust formation.

Cleaning/Decontamination:

Wash non-recoverable remainder with water.

Disposal:

For disposal of residues refer to sections 8 & 13.

SECTION 7. HANDLING AND STORAGE

Handling

Technical measures:

Labeling: Keep out of the reach of children.

Measures:

For industrial use, only as directed. Use only in well ventilated areas.

Safe handling advice:

Wash hands after use. Avoid storage near feed or food stuff. Avoid dust cloud formation. Keep ignition sources away. No smoking.

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Storage

Technical measures:

Keep container closed.

Recommended Storage Conditions:

Store in a dry place at temperatures not exceeding 32°C. Based on stability studies, the optimum storage temperature for maximization of shelf life is 23 - 25°C. However, it may be stored at temperatures between 16 and 32°C if such specific temperature control is not available. Do not freeze. Please refer to stability data for effects heat or cold may have on the specifications of the product.

Incompatible products:

Avoid contact with strong oxidizers.

Refer to the detailed list of incompatible materials (Section 10 Stability/Reactivity)

Packaging:

Product may be packaged in normal commercial packaging.

Packaging materials:

Recommended - Polypropylene & High Density Polyethylene

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Precautionary statements:**

Ensure adequate ventilation

Control parameters

Occupational exposure Limits:

France:

Not Determined

ACGIH:

Not Determined

Korea:

Not Determined

UK:

Not Determined

Surveillance procedures:

Not Determined

Engineering measures:

Not Determined

Personal Protective Equipment:

Respiratory protection:

Local exhaust. In case of inadequate ventilation, wear respiratory protection

Hand protection:

Protective gloves made of rubber or neoprene.

Eye protection:

Safety glasses.

Collective emergency equipment:

Eye fountain.

Skin and Body Protection:

Suitable protective clothing

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

Measures related to the Environment: No particular measures.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance:**

White powder

Odor:

Characteristic

Concentration:

98.0 – 100.0%

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Fumaric Acid:	≤ 1.00%
Maleic Acid:	≤ 0.05%
Heavy Metals:	< 20 ppm
Lead:	< 10 ppm
Arsenic:	< 2 ppm
Cadmium:	< 1 ppm
Microbial Content:	< 100 CFU/g; No pathogens
Yeast & Mold:	< 100 CFU/g
Gram Negative Bacteria:	0 CFU/g
Specific Gravity:	Not determined
Vapor density:	Not applicable
Boiling Point:	Not applicable
Freezing Point:	Not applicable
Melting point:	130°C
Flash point:	Not applicable
Oxidizing properties:	Non oxidizing material according to EC criteria.
Solubility:	
In water:	Soluble
In organic solvents:	Not determined
Log P:	Not determined

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable under ordinary conditions of use and storage up to two years then re-test to full product specifications to extend shelf life
Hazardous reactions:	None known
Conditions to avoid:	Prevent formation of dust. Avoid extreme heat, alkali & oxidizing agents.
Materials to avoid:	No dangerous reaction known with common products.
Hazardous decomposition products:	Under fire conditions only: Carbon monoxide and carbon dioxide

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SECTION 11. TOXICOLOGICAL INFORMATION

Information of ACD Malic Acid (per the manufacturer)

Ingestion: Not Determined
Dermal: Based on available data, the classification criteria are not met
Ocular: Causes serious eye irritation
Inhalation: Not Determined

Acute toxicity data: Based on available data, the classification criteria are not met

LD/LC₅₀ values that are relevant for classification: None

Sensitization: Based on available data, the classification criteria are not met

Repeated dose toxicity: Not Determined
Subacute to chronic toxicity: Not Determined

Additional Toxicological Information: This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Probable route(s) of exposure:

Ingestion
Inhalation
Eye contact
Skin contact

Acute effects: Causes serious eye irritation
Repeated dose toxicity: No relevant information available
Germ cell mutagenicity: Based on available data, the classification criteria are not met
Carcinogenicity: Based on available data, the classification criteria are not met

Reproductive toxicity: Based on available data, the classification criteria are not met
STOT single/repeated exposure: Based on available data, the classification criteria are not met
Aspiration hazard: Based on available data, the classification criteria are not met

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Effects on the aquatic environment: Not Determined

Biodegradability:

Persistence: Readily Biodegradable

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Bioaccumulation:

Octanol / water partition coefficient: Not Determined

Mobility:

Precipitation:

Expected behavior of the product: Ultimate destination of the product: Soil & sediment.

Other Adverse Effects:

None known

General notes:

Do not allow undiluted product or large quantities to reach ground water, water course or sewage system

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.

SECTION 13. DISPOSAL CONSIDERATIONS**Residues from product**

Prohibition:

Do not allow the product to be released into the Environment.

Destruction/Disposal:

Dispose of in accordance with relevant local regulations

Contaminated packaging

Decontamination/cleaning:

Cleaning is not required prior to disposal.

Destruction/Disposal:

Note: Take all necessary precautions when disposing of this product according to local regulations.

SECTION 14. TRANSPORT INFORMATION**UN Number:**

None

UN Shipping Name:

None

Transport Hazard Class:

Not classified as dangerous for transport

Land (rail/road):

Material is not restrictive for land transport and is not regulated by ADR/RID

Sea:

Material is not restrictive for sea transport and is not regulated by IMO/IMDG

Air:

Material is not restrictive for air transport and is not regulated by ICAO/IATA

Marine Pollutant:

No

Transport/Additional Information:

Not regulated for US DOT Transport in non-bulk containers

This material is not dangerous or hazardous

Special Precautions for User:

None known

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The above regulatory prescriptions are those valid on the date of publication of this sheet. However, given the possible evolution of transport regulations for hazardous materials and in the event of the MSDS in your possession dating back more than 12 months, it is advisable to check their validity with your sales office.

SECTION 15. REGULATORY INFORMATION

Labeling:

EC regulations: This product does not need to be labeled in accordance with EC Directives or respective national laws

Further regulations

United Kingdom: Handle in accordance with relevant British regulation: control of substance Hazardous to Health Regulations Environmental Hygiene Guidance: EH40
Workplace Exposure Limits (revised annually)

Korea regulations: Industrial safety and hygiene regulation: No
Hazardous material control regulation: No
Fire prevention regulation: No
Occupational Safety and Health Act in Korea: Not applicable
Toxic Chemical Control Act in Korea: Not applicable
Safety Control of Dangerous Substances Act: Not applicable
Wastes Control Act in Korea: Designated waste
Persistent Organic Pollutants Control Act: Not applicable

Abroad Regulations:

U.S.A. management information (OSHA regulation): Not applicable
U.S.A. management information (CERCLA regulation): Not applicable
U.S.A. management information (EPCRA 302 regulation): Not applicable
U.S.A. management information (EPCRA 304 regulation): Not applicable
U.S.A. management information (EPCRA 313 regulation): Not applicable
U.S.A. management information (Rotterdam Convention on Substances): Not applicable
U.S.A. management information (Stockholm Convention on Substances): Not applicable
U.S.A. management information (Montreal Protocol on Substances): Not applicable
EU Classification (CLASSIFICATION): Not applicable
EU Classification (Risk Phrases): Not applicable
EU Classification (Safety Phrases): Not applicable

Other regulations:

EINECS inventory status: Malic Acid: 202-601-2
TSCA inventory status: Exempt
AICS inventory status: 97-67-6
Canadian (CEPA DSL) inventory status: Listed as Butanedioic acid, hydroxy-, (á) (DSL)

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Other regulations (Continued):

Japan (MITI list):	Malic Acid
Korea:	Malic Acid
China inventory status:	Malic Acid
Philippines inventory status:	Listed: Butanedioic acid, hydroxy-, (S)-

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the products described in this sheet. The user's attention is drawn to the possible existence of additional provision which complete these regulations. Please refer to all applicable international, national and local regulations and provisions

SECTION 16. OTHER INFORMATION

Prohibited uses: For specific uses, food industry, ask the manufacturer for more information.

Last Revision Date: 10/12/2023

Preparation Date: 09/11/24024

MSDS summary of changes

- Added Precautionary Statements - Section 2 (Hazards Identification)
- Added Heavy Metals & Arsenic – Section 9 (Physical & Chemical Properties) & Updated transport information – Section 14 (Transport Information)
- Updated Precautionary Statement - Section 2 (Hazards Identification), Added Lead & Cadmium & Updated Microbial Content – Section 9 (Physical & Chemical Properties) & Updated Korea & Abroad Regulations – Section 15 (Regulatory Information)
- Added Fumaric & Maleic Acid - Section 9 (Physical & Chemical Properties)
- Updated Classification, Pictograph, Signal Word & Hazard/Precautionary Statements – Section 2 (Hazards Identification), Updated Eye Contact, Ingestion & Added Most important symptoms and effects – Section 4 (First-Aid Measures), Updated Fire and explosion hazards, Suitable/Not suitable extinguishing media & Protection for fire-fighters – Section 5 (Fire-Fighting Measures), Updated Recovery Methods for Cleaning up – Section 6 (Accidental Release Measures), Updated Handling measures & Safe handling advice – Section 7 (Handling and Storage), Updated Respiratory Protection – Section 8 (Exposure Controls/Personal Protection), Updated Lead & Melting Point – Section 9 (Physical & Chemical Properties), Updated Conditions to avoid & Hazardous decomposition products – Section 10 (Stability and Reactivity), Updated Toxicological Data – Section 11 (Toxicological Data) & Added General notes – Section 12 (Ecological Information)
- Updated Stability – Section 10 (Stability and Reactivity)

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The information given is based on our knowledge of this product, at the time of publication in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than which it was intended. This is not in any way excuse the user from knowing and applying all the regulations governing their activity. It is sole responsibility of the user to take all precautions required in handling the product. The purpose of mandatory regulation mentioned is to help the user to fulfill his obligations regarding the use of products. This information is not exhaustive, this is not exonerate the user from ensuring that legal obligations other than those mentioned, relating to the use and storage.