

Material Safety Data Sheet

Customer P.O. No. 68298

Date Printed: 12/16/2008
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Section 1 - Product and Company Information

Catalog Number: 46940-U (Reorder Product by this No.)
Product Name: D-MALIC ACID, 100MG, NEAT
Data Sheet Number: R474180
Data Sheet Name: D-MALIC ACID
Street Address: 595 North Harrison Road
City, State, Zip, Country: Bellefonte, PA 16823-0048 USA
Fax (MSDS Dept.): 814-359-5930
Emergency Phone: 800-521-8956 EXT 2143
CHEMTREC: 800-424-9300

Section 2 - Composition/Information on Ingredient(s)

Substance Name: D-MALIC ACID
CAS#: 636-61-3
SARA 313: No
Ingredients:
Formula: C4H6O5
Chemical Name:
D-MALIC ACID
Synonym(s):

RTECS Number: ON7260000

MSDS Dictionary:

CAS=Chemical Abstract Service; %=Percentage of Composition; TLV=Threshold Limit Value; SARA=Superfund Amendments and Reauthorization Act of 1986; TSCA=Toxic Substances Control Act; N/A=Not Available.

Section 3 - Hazards Identification

Emergency Overview:

Stable.
Harmful if absorbed through skin.
Irritates respiratory tract.
Harmful if inhaled.
Harmful if swallowed.
Powdered material can create a dust explosion.
To the best of our knowledge, the chemical, physical, & toxicological properties have not been thoroughly investigated.
See Section 11 for toxicological data.

Section 4 - First Aid Measures

Oral Exposure:

Contact a physician.
Never give anything by mouth to an unconscious person.
Never try to make an unconscious person vomit.

Inhalation Exposure:

Section 4 - First Aid Measures

Immediately move to fresh air.
Give oxygen if breathing is labored.

Dermal Exposure:

Flush skin with large volumes of water.

Eye Exposure:

Flush eyes with water for 15 minutes.

Additional Information:

Contact a physician.

Section 5 - Fire Fighting Measures

Flammable Hazards:

Explosion Hazards:

Powdered material can create a dust explosion.

Thermal Decomposition Components:

N/A

Extinguishing Media:

Suitable:

Water.
CO2.
Foam.
Dry chemical.

Firefighting

Protective Equipment:

Wear self-contained breathing apparatus when fighting a chemical fire.

Specific Hazard(s):

Flash Point (F):	Value:	Method:
Autoignition Temperature:	N/A	
Explosion Limits:	Lower:	Upper:
Additional Information:	N/A	

Section 6 - Accidental Release Measures

Procedure to be followed in case of Leak or Spill:

Ventilate area.
Sweep up material.
Avoid generating dust.

Procedure(s) of Personal Precaution(s):

Avoid inhaling dust.
Avoid generating dust.
Avoid eye or skin contact.
Wear protective glasses.
Wear rubber gloves.

Methods for Cleaning Up:

Additional Information:

Section 7 - Handling and Storage

Handling

User Exposure:

Avoid inhaling dust.
Avoid generating dust.
Avoid eye or skin contact.

Storage

Suitable:

Keep away from heat.
Keep away from oxidizers.
Keep away from bases.
Store in sealed container in cool, dry location.

Additional Information:

Section 8 - Exposure Controls/PPE

Engineering Controls:

Use only in exhaust hood.

Personal Protective Equipment

Respiratory:

Hand:

Wear rubber gloves.

Eye:

Wear protective glasses.

Additional Equipment:

General Hygiene Measures:

Avoid inhaling dust.

Avoid eye or skin contact.

Additional Information:

Section 9 - Physical and Chemical Properties

Appearance:

White solid

Odor:

Molecular Weight: 134

pH:

Value:

Method:

Boiling Point Range:

N/A

Melting Point Range:

99° C

Vapor Pressure:

N/A

Vapor Density:

N/A

Volatile %:

N/A

Specific Gravity/Density:

N/A

Evaporation Rate:

N/A

Value:

Method:

Flash Point (F):

N/A

Lower:

Upper:

Explosion Limits:

N/A

Solubility in Water:

N/A

Refractive Index:

Autoignition Temperature:

Additional Information:

N/A = Not Available

Section 10 - Stability and Reactivity

Stability:

Stable:

Stable.

Materials to Avoid:

Strong bases.

Reducing agents.

Alkali metals.

Oxidizing agents.

Conditions to Avoid:

N/A

Hazardous Decomposition Products:

N/A

Hazardous Polymerization:

Additional Information:

Section 11 - Toxicological Information

Route of Exposure

Skin Contact:

Irritates skin.

Skin Absorption:

Harmful if absorbed through skin.

Section 11 - Toxicological Information

Eye Contact:

Irritates eyes.

Inhalation:

Irritates respiratory tract.
Harmful if inhaled.

Ingestion:

Harmful if swallowed.

Critical Effects:**Additional Possible Effects:****Target Organ(s) or System(s):**

Gastrointestinal disturbances.

Signs and Symptoms of Exposure:

Nausea.

Irritates respiratory tract.

Conditions Aggravated by Exposure:**Additional Information:****Toxicity Data (LD50):**

N/A

Limit

Range

TLV:

N/A

PEL:

N/A

Section 12 - Ecological Information

Ecotoxicity:

No Data Available.

Section 13 - Disposal Information

Appropriate Method of Disposal of Substance or Preparation:

Comply with all applicable federal, state, or local regulations.

Contact a licensed professional waste disposal service to dispose of this material.

Section 14 - Transport Information

DOT

Proper Shipping Name: N/A
UN#: N/A
Class: N/A
Packing Group: N/A
Hazard Label: N/A
PIH: N/A

IATA

Proper Shipping Name: N/A
IATA UN Number: N/A
Hazard Class: N/A
Packing Group: N/A
Hazard Label: N/A
PIH: N/A

Section 15 - Regulatory Information

EU Directives Classification

Symbol of Danger: XN

Indication of Danger:

Harmful

Risk Statements: R: 20 22

Harmful by inhalation and if swallowed.

Safety Statements: S: 26 36

In case of contact with eyes, rinse immediately with plenty of water and seek medical

Section 15 - Regulatory Information

advice.

Wear suitable protective clothing.

US Classification and Label Text

Indication of Danger:

Risk Statements:

Safety Statements:

US Statements:

United States Regulatory Information

SARA Listed: No

Deminimis:

Notes:

TSCA Inventory Item: No

United States - State Regulatory Information

California Prop-65:

Canada Regulatory Information

WHMIS Classification:

DSL:

NDSL:

Additional Information:

Section 16 - Other Information

Disclaimer:

For R&D use only. Not for drug, household or other uses.

Warranty:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Supelco, shall not be held liable for any damage resulting from handling or from contact with the above product. Copyright 2008 Supelco. License granted to make unlimited paper copies for internal use only.