

Safety Data Sheet

Succinic Acid

CAROLINA[®]
www.carolina.com

Section 1 Product Description

Product Name: Succinic Acid

Recommended Use: Science education applications

Synonyms: Butanedionic Acid; Amber Acid

Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150

Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)

Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER



Causes serious eye damage.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 1

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Succinic Acid	110-15-6	100

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact: After contact with skin, wash immediately with plenty of water.

Ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

Fire Fighting Methods and Protection: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Fire and/or Explosion Hazards: Avoid Dusting. May become explosive when dispersed in air. Fire or excessive heat may produce hazardous decomposition products. Explosive when mixed with oxidising substances.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

Section 6 Spill or Leak Procedures

Succinic Acid

Page 1 of 4

Safety Data Sheet

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Do not flush spill to drain. Refer to manufacturer/supplier for information on recovery/recycling.

Section 7 Handling and Storage

Handling: Wear protective gloves/protective clothing/eye protection/face protection. Keep container tightly closed in a cool, well-ventilated place.

Storage: Keep away from oxidizing materials and strong acids.

Storage Code: Green - general chemical storage

Section 8 Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>		
	(TWA)	(STEL)	(TWA)	(STEL)
No data available	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Eye Protection: Wear chemical splash goggles when handling this product. Have an eye wash station available. Wear safety glasses with side shields and a Face shield

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Nitrile

Section 9 Physical Data

Formula: (HOOC)CH ₂ CH ₂ (COOH)	Vapor Pressure: N/A
Molecular Weight: 118.09	Evaporation Rate (BuAc=1): N/A
Appearance: White Crystalline Solid	Vapor Density (Air=1): N/A
Odor: No data available	Specific Gravity: 1.57 at 25°C
Odor Threshold: No data available	Solubility in Water: Soluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: 188 C	Autoignition Temperature: No data available
Boiling Point: No data available 235 C	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available
Flammable Limits in Air: N/A	Percent Volatile by Volume: 0% (21°C)

Section 10 Reactivity Data

Reactivity: No data available

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: None known.

Incompatible Materials: Strong reducing agents, Strong oxidizing agents, Caustics (bases)

Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry: N/A

Symptoms (Acute): N/A

Delayed Effects: No data available

Safety Data Sheet

Acute Toxicity:
Chemical Name
Succinic Acid

CAS Number
110-15-6

Oral LD50
Oral LD50 Rat
2260 mg/kg

Dermal LD50
Not determined

Inhalation LC50
Inhalation LC50
(4h) Rat > 1.28
MG/L

Carcinogenicity:
Chemical Name
No data available

CAS Number
110-15-6

IARC
Not listed

NTP
Not listed

OSHA
Not listed

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: N/A

Section 12

Ecological Data

Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

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CAS Number
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Eco Toxicity
Aquatic EC50 (48h) Daphnia > 100 MG/L

Section 13

Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14

Transport Information

Ground - DOT Proper Shipping Name:
N/A

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15

Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
No data available	110-15-6	No	No	No	No	No

Section 16

Additional Information

Revised: 09/09/2015

Replaces: 09/03/2014

Printed: 10-29-2015

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

Safety Data Sheet

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health