

# Safety Data Sheet

## Succinic Acid

**CAROLINA**<sup>®</sup>  
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

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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>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
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

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

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## Acute Toxicity:

<b>Chemical Name</b> Succinic Acid	<b>CAS Number</b> 110-15-6	<b>Oral LD50</b> Oral LD50 Rat 2260 mg/kg	<b>Dermal LD50</b> Not determined	<b>Inhalation LC50</b> Inhalation LC50 (4h) Rat > 1.28 MG/L
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## Carcinogenicity:

<b>Chemical Name</b> No data available	<b>CAS Number</b> 110-15-6	<b>IARC</b> Not listed	<b>NTP</b> Not listed	<b>OSHA</b> Not listed
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## Chronic Effects:

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

## Section 12

### Ecological Data

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

<b>Chemical Name</b> Succinic Acid	<b>CAS Number</b> 110-15-6	<b>Eco Toxicity</b> Aquatic EC50 (48h) Daphnia > 100 MG/L
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## Section 13

### Disposal Information

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

## Section 14

### Transport Information

<b>Ground - DOT Proper Shipping Name:</b> N/A	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
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## Section 15

### Regulatory Information

<b>TSCA Status:</b>	All components in this product are on the TSCA Inventory.					
<b>Chemical Name</b>	<b>CAS Number</b>	<b>§ 313 Name</b>	<b>§ 304 RQ</b>	<b>CERCLA RQ</b>	<b>§ 302 TPQ</b>	<b>CAA 112(2) TQ</b>
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