

**MATERIAL SAFETY DATA SHEET**

MANUFACTURER: ROSEMOUNT ANALYTICAL INC.  
ADDRESS: 2400 BARRANCA PARKWAY  
IRVINE, CA 92606  
TELEPHONE: 949/757-8500  
(1-800-424-9300 24 Hr. CHEMTREC/ CODE: RANA)

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PREPARED BY: T. Phillips

**SECTION 1-Product Identification**

**Product Name: Succinic Acid (Solid-dry)**  
**Synonyms: 9210379, amber acid, Butanedioic acid**  
**Part Number: 1700604**

**SECTION 2-Composition/Information on Ingredients**

Ingredient(s)	CAS #	Percent	Hazardous
Succinic Acid	110-15-6	100	No

**SECTION 3-Hazards Identification**

Health Rating: 2  
Flammability Rating: 1  
Reactivity Rating: 0

**WARNING: Irritates mucous membranes. Eye, lung and skin irritant. Avoid contact/ prolonged exposure.**

Lab Protective Equip: Goggles, lab coat, gloves, painters mask (in dry powder form only)

**SECTION 4-First Aid Measures**

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**INGESTION:** Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**SKIN CONTACT:** Flush skin with water for at least 15 minutes. Wash contaminated clothing before reuse. Call a physician if burning symptoms persist.

**EYE CONTACT:** Immediately flush eyes with plenty of water for at least 15 minutes lifting upper and lower eyelids occasionally. Get medical attention.

**SECTION 5-Fire Fighting Measures**

**Fire:** Fire is possible at elevated temperatures or by contact with an ignition source.

**Explosion:** Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**Fire Extinguishing Media:** Water spray, dry chemical, alcohol foam, or carbon dioxide.

**Special Information:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure

demand or other positive pressure mode. Water spray may be used to keep fire exposed containers cool.

#### **SECTION 6-Accidental Release Measures**

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

#### **SECTION 7-Handling and Storage**

Store in a closed container. Protect container from physical damage. Store in a cool, dry, ventilated area away from sources of heat or ignition. Isolate from oxidizing materials. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

#### **SECTION 8-Exposure Controls/Personal Protection**

**Airborne Exposure Limits:** None

**Ventilation System:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition for details.

**Personal Respirators (NIOSH Approved):** Recommend NIOSH type N95 filters for dust, powders and particulates. If in solution, NIOSH type P filter for mists, sprays, oils.

**Skin Protection:** Wear protective gloves and clean body-covering

**Eye Protection:** Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

#### **SECTION 9-Physical and Chemical Properties**

**Appearance:** White crystals (powder)

**Odor:** Odorless

**Solubility:** 100g/100ml water @ 100C (212F).

**Specific Gravity:** 1.57 @25C

**pH:** 2.7 (0.1 molar solution)

**Boiling Point:** 235 C (455F)

**Melting Point:** 188C (370F)

**Vapor Density (Air=1):** No info

**Vapor Pressure (mm Hg):** No info

**Evaporation Rate (BuAc=1):** No info

#### **SECTION 10-Stability and Reactivity**

**Stability:** Stable under ordinary conditions of use and storage.

**Hazardous Decomposition Products:** May produce smoke and irritating fumes when heated to decomposition.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities:** Oxidizers and bases.

**Conditions to Avoid:** Incompatibles.

**SECTION 11-Toxicological Information**

*Succinic Acid*: oral rat LD50:

-----Cancer Lists-----

Ingredient	--NTP Carcinogen--		IARC Category
	Known	Anticipated	
<i>Succinic Acid (110-15-6)</i>	No	No	None

**SECTION 12-Ecological Information**

**Environmental Fate:** No information found

**Environmental Toxicity:** No information found

**SECTION 13-Disposal Considerations**

State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**SECTION 14-Transport Information**

Not regulated

**SECTION 15-Regulatory Information**

-----Chemical Inventory Status - Part 1-----

Ingredient	TSCA	EC	Japan	Australia
<i>Succinic Acid (110-15-6)</i>	Y	Y	Y	Y

-----Chemical Inventory Status - Part 2-----

Ingredient	Korea	DSL	NDSL	Phil.
<i>Succinic Acid (110-15-6)</i>	Y	Y	N	Y

-----Federal, State & International Regulations - Part 1-----

Ingredient	-SARA 302-		-SARA 313-	
	RQ	TPQ	List	Chemical Catg.
<i>Succinic Acid (110-15-6)</i>	N	N	N	N

-----Federal, State & International Regulations - Part 2-----

Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8(d)
<i>Succinic Acid (110-15-6)</i>	N	N	N

**SECTION 16-Other Information**

**NFPA Ratings:** Health: 2 Flammability: 1 Reactivity: 0

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**Prepared by: Rosemount Analytical Inc.**  
Phone Number: (949) 757-8500