

MATERIAL SAFETY DATA SHEET

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SECTION 1-Product Identification

Product Name: Succinic Acid (Saturated solution)
Synonyms: 1700604, amber acid, Butanedioic acid, (Part B of kit 24146-00)
Part Number: 9210381

SECTION 2-Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent	Hazardous
Succinic Acid	110-15-6	11	No
DI Water		89	No

SECTION 3-Hazards Identification

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

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

Lab Protective Equip: Goggles, lab coat, gloves.

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 not possible when in solution form.

Explosion: N/A

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

Spills: Mop 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, vented area. Isolate from oxidizing materials.

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: Clear colorless solution. White particles may be visible if saturated.

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	
Succinic Acid (110-15-6)	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
Succinic Acid (110-15-6)	Y	Y	Y	Y

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

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

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

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

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

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

SECTION 16-Other Information

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

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