

## Material Safety Data Sheet

Date Printed: 24/MAY/2005

Date Updated: 20/MAR/2004

Version 1.1

According to 91/155/EEC

## 1 - Product and Company Information

Product Name SUCCINYLCHOLINE CHLORIDE DIHYDRATE  
 Product Number 85980

Company Sigma-Aldrich Pty, Ltd  
 Unit 2, 14 Anella Avenue  
 Castle Hill NSW 1765  
 Australia

Technical Phone # +61 2 9841 0555

Fax +61 2 9841 0500

Emergency Phone # +61 2 9841 0566

## 2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
SUCCINYLCHOLINE CHLORIDE DIHYDRATE*	71-27-2	200-747-4	None

Formula C14H30N2O4.2Cl

Molecular Weight 397.3 AMU

Synonyms Anectine \* Anectine chloride \*  
 Bis(2-dimethylaminoethyl)succinate  
 bis(methochloride) \*  
 Bis(succinyldichlorocholine) \*  
 Chlorsuccinylcholin (German) \* Chlorure de  
 succinilcoline (French) \* Choline succinate  
 dichloride \* Choline, succinyl-, dichloride \*  
 Cloruro di succinilcolina (Italian) \*  
 Diacetylcholine chloride \* Diacetylcholine  
 dichloride \* 2-Dimethylaminoethyl succinate  
 dimethochloride \* Ethanaminium,  
 2,2'-((1,4-dioxo-1,4-butanediyl)bis(oxy))bis(N,N,  
 N-trimethyl-, dichloride \*  
 (2-Hydroxyethyl)trimethylammonium chloride  
 succinate \* Lysthenon \* Lysthenone \* Midarine \*  
 Myoplegine \* Pantolax \* Quelicin chloride \*  
 Scoline \* Scoline chloride \* Skolin \* Succicuran  
 \* Succinic acid, bis(beta-dimethylaminoethyl)  
 ester, dimethochloride \* Succinic acid, diester  
 with choline chloride \* Succinoylcholine  
 chloride \* Succinyl-asta \* Succinyl bischoline  
 chloride \* Succinylbischoline dichloride \*  
 Succinylcholine chloride \* Succinylcholine

## 3 - Hazards Identification

## 4 - First Aid Measures

#### AFTER INHALATION

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

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### 5 - Fire Fighting Measures

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#### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

#### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

#### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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### 6 - Accidental Release Measures

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#### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

#### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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### 7 - Handling and Storage

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#### HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing.

#### STORAGE

Conditions of Storage: Keep tightly closed. Store in a cool dry place.

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### 8 - Exposure Controls / Personal Protection

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#### ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

#### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

#### PERSONAL PROTECTIVE EQUIPMENT

Special Protective Measures: Wear appropriate government approved

respirator, chemical-resistant gloves, safety goggles, other protective clothing.

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## 9 - Physical and Chemical Properties

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Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.  
Conditions of Instability: Light.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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RTECS NUMBER: GA2360000

### ACUTE TOXICITY

LD50  
Intraperitoneal  
Mouse  
1250 UG/KG

LD50  
Intravenous  
Mouse  
430 UG/KG

Remarks: Peripheral Nerve and Sensation: Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral: Altered sleep time (including change in righting reflex). Lungs, Thorax, or Respiration: Cyanosis.

LD50

Intravenous

Rabbit

240 UG/KG

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Other. Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Rigidity (includes catalepsy).

LD50

Intravenous

Chicken

300 UG/KG

#### SIGNS AND SYMPTOMS OF EXPOSURE

Exposure may be implicated in the development of malignant hyperpyrexia in those with a genetic predisposition to the syndrome. Exposure can cause bradycardia, tachycardia, hypertension, hypotension, cardiac arrhythmias, cardiac arrest, and a profound and prolonged muscle relaxation resulting in respiratory depression.

#### ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract.

Multiple Routes: May be harmful by inhalation, ingestion, or skin absorption.

#### TARGET ORGAN INFORMATION

Skeletal muscle.

#### CHRONIC EXPOSURE - MUTAGEN

Human

300 UG/CULTURE

Cell Type: leukocyte

Sister chromatid exchange

Mouse

2500 UG/KG

Parenteral

Sister chromatid exchange

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#### 12 - Ecological Information

No data available.

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#### 13 - Disposal Considerations

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#### SUBSTANCE DISPOSAL

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

Non-hazardous for road transport.

### IMDG

Non-hazardous for sea transport.

### IATA

Non-hazardous for air transport.

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

S-PHRASES: 22 24/25

Do not breathe dust. Avoid contact with skin and eyes.

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## 16 - Other Information

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### 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. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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