

MATERIAL SAFETY DATA SHEET

Product Name: Succinylcholine Chloride Injection (Quelicin)

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Manufacturer Name And Address Hospira Inc.
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Lake Forest, Illinois USA
60045

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Hospira, Inc., Non-Emergency 224-212-2000

Product Name Succinylcholine Chloride Injection (Quelicin)

Synonyms Suxamethonium Chloride

2. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredient Name Succinylcholine Chloride

Chemical Formula $C_{14}H_{30}C_{12}N_2O_4$

Preparation Non-hazardous ingredients include Water for Injection. Hazardous ingredients present at less than 1% may include sodium chloride; methylparaben and 0.02% propylparaben may also be added as preservatives in multi-dose solutions; sodium hydroxide and/or hydrochloric acid may be used to adjust the pH.

Component	Approximate Percent by Weight	CAS Number	RTECS Number
Succinylcholine Chloride	≤10	71-27-2	GA2360000

3. HAZARD INFORMATION

Carcinogen List

Substance	IARC	NTP	OSHA
Succinylcholine Chloride	Not Listed	Not Listed	Not Listed

Emergency Overview Succinylcholine Chloride Injection (Quelicin) is a solution containing succinylcholine chloride, a depolarizing neuromuscular blocking agent used to relax muscles during anesthesia and other clinical procedures. In the workplace, this product should be considered potentially irritating to the eyes and respiratory tract. Based on clinical use, possible target organs include the muscular system, nervous system, cardiovascular system, and respiratory system.

Occupational Exposure Potential Information on the absorption of this product via inhalation or skin contact is not available. Avoid liquid aerosol generation and skin contact.

Signs and Symptoms None known following an occupational exposure. In clinical use, adverse reactions are primarily an extension of the pharmacological activity. Succinylcholine chloride can cause profound muscle relaxation, and may produce prolonged respiratory depression to the point of apnea. Infrequently, adverse reactions such as cardiac arrest, malignant hyperthermia,

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arrhythmias, bradycardia, tachycardia, hypertension, hypotension, hyperkalemia, prolonged respiratory depression or apnea, increased intraocular pressure, muscle fasciculation, jaw rigidity, postoperative muscle pain, rhabdomyolysis with possible myoglobinuric acute renal failure, excessive salivation, and rash have also been reported. Hypersensitivity reactions, including anaphylaxis, may also occur.

Medical Conditions Pre-existing hypersensitivity to this material; pre-existing muscle, cardiovascular, respiratory,
Aggravated by Exposure or nervous system ailments.

4. FIRST AID MEASURES

- Eye contact** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
- Skin contact** Remove from source of exposure. Flush with copious amounts of water. If irritation persists or signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
- Inhalation** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.
- Ingestion** Remove from source of exposure. If signs of toxicity occur, seek medical attention. Provide symptomatic/supportive care as necessary.

5. FIRE FIGHTING MEASURES

- Flammability** None anticipated for this aqueous product.
- Fire & Explosion Hazard** None anticipated for this aqueous product.
- Extinguishing media** As with any fire, use extinguishing media appropriate for primary cause of fire.
- Special Fire Fighting Procedures** No special provisions required beyond normal firefighting equipment such as flame and chemical resistant clothing and self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

- Spill Cleanup and Disposal** Isolate area around spill. Put on suitable protective clothing and equipment as specified by site spill procedures. Absorb the liquid with suitable material and clean affected area with soap and water. Dispose of spill materials according to the applicable federal, state, or local regulations.

7. HANDLING AND STORAGE

- Handling** No special handling required for hazard control under conditions of normal product use.
- Storage** No special storage required for hazard control. For product protection, follow storage recommendations noted on the product case label, the primary container label, or the product insert.

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Special Precautions No special precautions required for hazard control.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Component	Type	Exposure limits			
		mg/m3	ppm	µg/m3	Note
Succinylcholine Chloride	Not Applicable	N/A	N/A	N/A	None Established

Respiratory protection Respiratory protection is normally not needed during intended product use. However, if the generation of aerosols is likely, and engineering controls are not considered adequate to control potential airborne exposures, the use of an approved air-purifying respirator with a HEPA cartridge (N95 or equivalent) is recommended under conditions where airborne aerosol concentrations are not expected to be excessive. For uncontrolled release events, or if exposure levels are not known, provide respirators that offer a high protection factor such as a powered air purifying respirator or supplied air. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions require respirator use. Personnel who wear respirators should be fit tested and approved for respirator use as required.

Skin protection If skin contact with the product formulation is likely, the use of latex or nitrile gloves is recommended.

Eye protection Eye protection is normally not required during intended product use. However, if eye contact is likely to occur, the use of chemical safety goggles (as a minimum) is recommended.

Engineering Controls Engineering controls are normally not needed during the normal use of this product.

9. PHYSICAL/CHEMICAL PROPERTIES

Appearance/Physical State	Liquid
Color	Clear, Colorless
Odor	NA
Odor Threshold:	NA
pH:	3.6 (3.0 to 4.5)
Melting point/Freezing point:	NA
Initial Boiling Point/Boiling Point Range:	NA
Evaporation Rate:	NA
Flammability (solid, gas):	NA
Upper/Lower Flammability or Explosive Limits:	NA
Vapor Pressure:	NA
Vapor Density:	NA
Specific Gravity:	NA
Solubility:	NA
Partition coefficient: n-octanol/water:	NA
Auto-ignition temperature:	NA
Decomposition temperature:	NA

10. STABILITY AND REACTIVITY

Reactivity	Not determined
Chemical Stability	Stable under standard use and storage conditions.
Hazardous Reactions	Not determined
Conditions to avoid	Not determined
Incompatibilities	Not determined
Hazardous decomposition products	Not determined. During thermal decomposition, it may be possible to generate irritating vapors and/or toxic fumes of carbon oxides (COx), nitrogen oxides (NOx), and hydrogen chloride.
Hazardous Polymerization	Not anticipated to occur with this product.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
 Not determined for the product formulation. Information for the ingredients is as follows:

Ingredient(s)	Percent	Test Type	Route of Administration	Value	Units	Species
Succinylcholine	100%	LD50	Oral	125	mg/kg	Mouse
Succinylcholine Chloride	100%	LD50	Intravenous	0.43 0.24	mg/kg mg/kg	Mouse Rabbit

Aspiration Hazard	None anticipated from normal handling of this product.
Dermal Irritation/Corrosion	None anticipated from normal handling of this product.
Ocular Irritation/Corrosion	None anticipated from normal handling of this product. Inadvertent contact of this product with eyes may produce irritation with redness and tearing.
Dermal or Respiratory Sensitization	None anticipated from normal handling of this product.
Reproductive Effects	Animal reproduction studies have not been conducted with succinylcholine chloride.
Mutagenicity	No information found.
Carcinogenicity	The carcinogenic potential of succinylcholine chloride has not been evaluated.
Target Organ Effects	Based on clinical use, possible target organs include the muscular system, nervous system, cardiovascular system, and respiratory system.



12. ECOLOGICAL INFORMATION

Aquatic Toxicity Not determined for product
 Persistence/Biodegradability Not determined for product
 Bioaccumulation Not determined for product
 Mobility in Soil Not determined for product

13. DISPOSAL CONSIDERATIONS

Waste Disposal All waste materials must be properly characterized. Further, disposal should be performed in accordance with the federal, state or local regulatory requirements.
 Container Handling and Disposal Dispose of container and unused contents in accordance with federal, state and local regulations.

14. TRANSPORTATION INFORMATION

ADR/ADG/ DOT STATUS: Not regulated
 IMDG STATUS: Not regulated
 ICAO/IATA STATUS: Not regulated
 Transport Comments: None

15. REGULATORY INFORMATION

USA Regulations

Substance	TSCA Status	CERCLA Status	SARA 302 Status	SARA 313 Status	PROP 65 Status
Succinylcholine Chloride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

RCRA Status Not Listed

U.S. OSHA Classification Target Organ Toxin
 Possible Irritant

GHS Classification *In the EU, classification under GHS/CLP does not apply to certain substances and mixtures, such as medicinal products as defined in Directive 2001/83/EC, which are in the finished state, intended for the final user:

Hazard Class Not Applicable



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Hazard Category Not Applicable

Signal Word Not Applicable

Symbol Not Applicable

Prevention P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

Hazard Statement Not Applicable

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention. Wash hands after handling.

Get medical attention if you feel unwell.

EU Classification*

*Medicinal products are exempt from the requirements of the EU Dangerous Preparations Directive. Information provided below is for the pure drug substance Succinylcholine Chloride

Classification(s): Not Applicable

Symbol: Not Applicable

Indication of Danger: Not Applicable

Risk Phrases: Not Applicable

Safety Phrases: S23 - Do not breathe vapor.
S24 - Avoid contact with skin.
S25 - Avoid contact with eyes.
S37/39 - Wear suitable gloves and eye/face protection.

16. OTHER INFORMATION:

- Notes:
- ACGIH TLV American Conference of Governmental Industrial Hygienists – Threshold Limit Value
 - CAS Chemical Abstracts Service Number
 - CERCLA US EPA law, Comprehensive Environmental Response, Compensation, and Liability Act
 - DOT US Department of Transportation Regulations
 - EEL Employee Exposure Limit
 - IATA International Air Transport Association
 - LD50 Dosage producing 50% mortality
 - NA Not applicable/Not available
 - NE Not established
 - NIOSH National Institute for Occupational Safety and Health
 - OSHA PEL US Occupational Safety and Health Administration – Permissible Exposure Limit
 - Prop 65 California Proposition 65
 - RCRA US EPA, Resource Conservation and Recovery Act
 - RTECS Registry of Toxic Effects of Chemical Substances
 - SARA Superfund Amendments and Reauthorization Act
 - STEL 15-minute Short Term Exposure Limit
 - TSCA Toxic Substance Control Act
 - TWA 8-hour Time Weighted Average

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