


Section 1: Identification

Common Name/Trade Name	QUININE SULFATE DIHYDRATE USP	
Supplier Information	Letco Medical, LLC 1316 Commerce Drive NW Decatur, AL 35601 1 (800) 239-5288 +1 (734) 843-4693	IN CASE OF EMERGENCY: Chemtrec 1 (800) 424-9300 (24 hours)
Distributor Name	Bella Corp Trading Pty Ltd 6/34 Dominions Road, Ashmore QLD 4214, Australia Telephone: 07 5597 4169 Email: bellacorp@bellacorp.com.au	
Product Synonym(s)	Bis-(R)-[(2S,4S,5R)-5-ethenyl-1-azabicyclo[2.2.2]oct-2-yl] (6-methoxyquinolin-4-yl)methanol sulfate dihydrate	
Relevant Use(s) of Product	Manufacture or Compounding of Substances	

Section 2: Hazards Identification

Classification of Substance or Mixture	Acute toxicity, Oral (Category 4), Skin Sensitization (Category 1A)	
Signal Word	Warning	
Hazard Statement(s)	H302 H317	Harmful if swallowed May cause an allergic skin reaction
Pictogram(s)		
Precautionary Statement(s)	P280 P301+P312 P302+P352 P333+P313	Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN wash with soap and water. If skin irritation or a rash occurs get medical advice/attention.
Hazards Not Otherwise Classified	No data available	
Ingredient(s) with Unknown Toxicity	No data available	

Section 3: Composition/Information on Ingredients

Chemical Name	Quinine sulfate dihydrate
Common Name	Quinine Sulfate
CAS Number	207671-44-1
Impurities and/or Stabilizing Additives	No data available

Section 4: First Aid Measures

General Advice	Get medical advice/attention if you feel unwell. If possible show him this sheet. Failing this, show him the packaging or label. Never give anything by mouth to an unconscious person. Place the affected person in the recovery position.
If Inhaled	Remove victim to fresh air and keep at rest in a position comfortable for breathing.
In Case of Skin Contact	Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
In Case of Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If Swallowed	Rinse mouth. Drink plenty of water as a precaution. Get medical advice/attention.
Most Important Symptoms and Effects	Symptoms/injuries: The main risks of acute quinidine overdoses are cardiovascular disturbances (ventricular tachycardia, atrial flutter and cardiac arrest) and hypotension. Signs of cinchonism: Neurotoxic effects (e.g. headache, tinnitus, visual disturbances, confusion), gastrointestinal disorders (e.g. nausea, vomiting, diarrhoea), exanthema and haematological disorders. Symptoms/injuries after skin contact: May cause an allergic skin reaction. Symptoms/injuries after ingestion: Harmful if swallowed. Treat symptomatically.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Suitable extinguishing media: Making extinguishing agents environment-friendly. Water spray. Foam. Carbon dioxide. dry extinguishing powder. Unsuitable extinguishing media: Do not use a heavy water stream.
Special Hazards Arising From the Substance/Mixture	Carbon oxides (CO, CO ₂). Nitrogen oxides.
Special PPE and/or Precautions for Firefighters	Firefighting instructions: Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment. Protection during firefighting: Use a self-contained breathing apparatus and also a protective suit. EN 469.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures	General measures: Stop leak if safe to do so. Provide adequate ventilation. Avoid contact with skin and eyes. Do not breathe dust. For non-emergency personnel- Emergency procedures: Only qualified personnel equipped with suitable protective equipment may intervene. For emergency responders- Protective equipment: Use personal protective equipment as required. Wear suitable respiratory equipment in case of insufficient ventilation.
Methods and Materials Used for Containment	Prevent entry to sewers and public waters. Notify authorities if substance enters sewers or public waters.
Cleanup Procedures	Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Minimize generation of dust. Dispose of in accordance with relevant local regulations.

Section 7: Handling and Storage

Precautions for Safe Handling	Provide local exhaust or general room ventilation. Avoid dust formation. Avoid contact with skin and eyes. Keep container closed when not in use. Handle in accordance with good industrial hygiene and safety procedures. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Take off contaminated clothing and wash it before reuse.
Conditions for Safe Storage	Store in original container. Store tightly closed in a dry and cool place. Keep out of direct sunlight. Protect from moisture. Storage temperature: This substance does not require any special temperature storage conditions. Prohibitions on mixed storage: Keep away from food, drink and animal feeding stuffs.

Section 8: Exposure Controls/Personal Protection

Components with Workplace Control Parameters	No additional information available
Appropriate Engineering Controls	Use adequate ventilation. Avoid dust formation
PPE - Eye/Face Protection	Chemical goggles or safety glasses (EN 166).
PPE - Skin Protection	Wear suitable protective clothing (EN 344).
PPE - Body Protection	Wear suitable protective clothing (EN 344).
PPE - Respiratory Protection	Where exposure through inhalation may occur from use, respiratory protection is recommended. Dust production: dust mask with filter type P2

Section 9: Physical and Chemical Properties

Appearance	Physical State: Solid. Appearance: White
Upper/Lower Flammability or Explosive Limits	No data available
Odor	Odourless
Vapor Pressure	No data available
Odor Threshold	No data available
Vapor Density	No data available
pH	5.7- 6.6
Relative Density	Bulk density: 350 - 600 kg/m ³ 320 - 550 kg/m ³ 170 - 250 kg/m ³
Melting Point/Freezing Point	212 °C
Solubility	Water: 1.23 g/l
Initial Boiling Point and Boiling Range	No data available
Flash Point	No data available
Evaporation Rate	No data available
Flammability (Solid, Gas)	No data available
Partition Coefficient	Log Pow 5.4
Auto-Ignition Temperature	400 °C
Decomposition Temperature	No data available
Viscosity	Not applicable

Section 10: Stability and Reactivity

Reactivity	No dangerous reactions known under normal conditions of use.
Chemical Stability	Stable under use and storage conditions as recommended in section 7.
Possibility of Hazardous Reactions	None under normal use.
Conditions to Avoid	Direct sunlight. High temperature. The degradation product quinicine is formed.
Incompatible Materials	Oxidizing agent.
Hazardous Decomposition Products	In case of fire: Carbon monoxide. Carbon dioxide. Nitrogen oxides.

Section 11: Toxicological Information

Acute Toxicity - LD50 Oral	LD50 oral rat 455.8 mg/kg
Acute Toxicity - Inhalation	No data available
Acute Toxicity - Dermal	No data available
Acute Toxicity - Eye	No data available
Skin Corrosion/Irritation	Not classified pH: 5.7 - 6.6
Serious Eye Damage/Irritation	Not classified pH: 5.7 - 6.6
Respiratory or Skin Sensitization	May cause an allergic skin reaction.
Germ Cell Mutagenicity	Not classified Based on available data, the classification criteria are not met
Carcinogenicity IARC	Not classified Based on available data, the classification criteria are not met
Carcinogenicity ACGIH	Not classified Based on available data, the classification criteria are not met
Carcinogenicity NTP	Not classified Based on available data, the classification criteria are not met
Carcinogenicity OSHA	Not classified Based on available data, the classification criteria are not met
Reproductive Toxicity	Not classified Based on available data, the classification criteria are not met
Specific Target Organ Toxicity - Single Exposure	Not classified Based on available data, the classification criteria are not met
Specific Target Organ Toxicity - Repeated Exposure	Not classified Based on available data, the classification criteria are not met
Aspiration Hazard	Not classified Based on available data, the classification criteria are not met

Section 12: Ecological Information

Toxicity	LC50 fish 562.4 mg/l 96 h, Danio rerio LC50 fish 34 mg/l 96 h, Ictalurus punctatus EC50 daphnia 44.8 mg/l 24 h, Daphnia magna EC50 other aquatic organisms 13.8 mg/l 24 h, Penaeus setiferus ErC50 algae 14.5 mg/l 72 h, Dunaliella salina
Persistence and Degradability	Readily biodegradable. Biodegradation 86.3 % 28 d (OECD 301 B, Quinine)
Bio-accumulative Potential	Bioconcentration factor (BCF REACH) 10 Log Pow 5.4 Bio-accumulative potential Low bioaccumulation potential.
Mobility in Soil	Log Koc 3.23 - 7.37
Other Adverse Effects	No data available

Section 13: Disposal Considerations

Waste Treatment Methods Product	Dispose in a safe manner in accordance with local/national regulations.
Waste Treatment Methods Packaging	Empty the packaging completely prior to disposal. When totally empty, containers are recyclable like any other packing. European List of Waste (Lo W) code: 07 00 00 - WASTES FROM ORGANIC CHEMICAL PROCESSES 07 01 00 - wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals Waste code: The waste code number according to the Ordinance on the European Waste Catalogue (AVV) depends on the waste producer and can therefore vary for any given product. The waste code number is therefore to be gleaned separately from each waste producer.
Special Precautions Landfill or Incinerations	No data available
Other Information	No data available

Section 14: Transport Information

UN Number	Not dangerous goods.
UN Proper Shipping Name	N/A
Transport Hazard Class(es)	N/A
Packaging Group	N/A
Environmental Hazards	No data available

Section 15: Regulatory Information

No REACH Annex XVII restrictions Quinine sulphate is not on the REACH Candidate List Quinine sulphate is not on the REACH Annex XIV List

Section 16: Other Information

Additional Information	N/A
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