

# Material Safety Data Sheet

## Quinine sulfate dihydrate, 99+%

ACC# 01369

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Quinine sulfate dihydrate, 99+%

**Catalog Numbers:** AC163710000, AC163710100, AC163710500, S71983, S71984, S71985, Q39-25

**Synonyms:** Quinine sulfate; Quinine bisulfate; Quinine hydrogen sulfate.

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
6119-70-6	Quinine sulfate dihydrate	> 99	unlisted

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: white to off-white powder.

**Warning!** May cause eye, skin, and respiratory tract irritation. May cause allergic skin reaction. May cause blood abnormalities. May cause central nervous system effects. May cause blindness. Light sensitive. May cause liver and kidney damage.

**Target Organs:** Kidneys, liver, cardiovascular system, ears.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May be harmful if absorbed through the skin. May cause an allergic reaction in certain individuals.

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause muscle tremor and impaired motor function. May cause systemic toxic effects on the heart, liver, and kidneys. Exposure may cause anemia and other blood abnormalities. May cause nausea and vomiting. May cause acute hepatitis. May cause allergic reaction. Ingestion can cause blurred vision, narrowing of the visual field, or blindness.

**Inhalation:** May cause respiratory tract irritation. May cause effects similar to those described for ingestion. Harmful if inhaled.

**Chronic:** Prolonged or repeated skin contact may cause sensitization dermatitis and possible destruction and/or ulceration. Adverse reproductive effects have been reported in animals.

### Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with skin and eyes. Keep container tightly closed. Do not ingest or inhale. Wash clothing before reuse.

**Storage:** Store in a tightly closed container. Store protected from light. Store in a cool, dry area away from incompatible substances.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Quinine sulfate dihydrate	none listed	none listed	none listed

**OSHA Vacated PELs:** Quinine sulfate dihydrate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** white to off-white

**Odor:** None reported.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** 233 - 235 deg C

**Decomposition Temperature:** > 235 deg C

**Solubility:** 1 g/810 mL water (20°C)

**Specific Gravity/Density:** Not available.

**Molecular Formula:** C<sub>40</sub>H<sub>48</sub>N<sub>4</sub>O<sub>4</sub>·H<sub>2</sub>SO<sub>4</sub>·2H<sub>2</sub>O

**Molecular Weight:** 782.96

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. May decompose when exposed to light. Light sensitive.

**Conditions to Avoid:** Light, dust generation.

**Incompatibilities with Other Materials:** Strong oxidizing agents, direct light, ammonia, bases.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, oxides of sulfur, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS#** 6119-70-6 unlisted.

**LD50/LC50:**

Not available.

Oral, woman: LDLo = 220 mg/kg. Oral, rat: LDLo = 800 mg/kg.

**Carcinogenicity:**

CAS# 6119-70-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No information available.

**Reproductive Effects:** Adverse reproductive effects have occurred in experimental animals.

**Mutagenicity:** No data available.

**Neurotoxicity:** No information available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No data available.

**Physical:** No data available.

**Other:** None.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	Not regulated.	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 6119-70-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### SARA Codes

CAS # 6119-70-6: immediate, delayed.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 6119-70-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

### European/International Regulations

#### European Labeling in Accordance with EC Directives

##### Hazard Symbols:

XN

##### Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

##### Safety Phrases:

S 22 Do not breathe dust.

S 36 Wear suitable protective clothing.

#### WGK (Water Danger/Protection)

CAS# 6119-70-6: 2

**Canada - DSL/NDSL**

None of the chemicals in this product are listed on the DSL or NDSL list.

**Canada - WHMIS**

This product has a WHMIS classification of D1B, D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

**Canadian Ingredient Disclosure List****Section 16 - Additional Information**

**MSDS Creation Date:** 6/28/1999

**Revision #5 Date:** 6/13/2006

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