Material Safety Data Sheet
Quinine sulfate dihydrate, 99+%

MSDS# 01369

Section 1 - Chemical Product and Company Identification
MSDS Name: Quinine sulfate dihydrate, 99+%
Catalog Numbers: AC163710000, AC163710100, AC163710500, EK1169556, Q39-25
Synonyms: Quinine sulfate; Quinine bisulfate; Quinine hydrogen sulfate.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaalaa 3a
2440 Geel, Belgium

Company Identification: (USA)
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

For information in the US, call: 800-ACROS-01
For information in Europe, call: +32 14 57 52 11
Emergency Number, Europe: +32 14 57 52 99
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300
CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

Risk Phrases:
CAS#: 6119-70-6
Chemical Name: Quinine sulfate dihydrate
%: > 99
EINECS#: unlisted

Text for R-phrases: see Section 16

Hazard Symbols: XN

Risk Phrases: 20/21/22

Section 3 - Hazards Identification

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

**Autoignition Temperature:**
Not applicable.

**Flash Point:**
Not applicable.

**Explosion Limits:**
Lower:
Not available

**Explosion Limits:**
Upper:
Not available

**NFPA Rating:**
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA - Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quinine sulfate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Quinine sulfate dihydrate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Quinine sulfate: None listed Quinine sulfate dihydrate: None listed

**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

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
Color: 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:
Solubility in water: 1 g/810 mL water (20°C)
Specific Gravity/Density: Not available.

Molecular Formula: C40H48N4O4.H2SO4.2H2O
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, bases, ammonia, direct light.

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

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 804-63-7: VA8440000
CAS# 6119-70-6: None listed

LD50/LC50: RTECS: Not available. RTECS: Not available. Other: Oral, woman: LDLo = 220 mg/kg. Oral, rat: LDLo = 800 mg/kg.

Carcinogenicity: Quinine sulfate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Quinine sulfate dihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: ALKALOID SALTS, SOLID, N.O.S.
Section 15 - Regulatory Information

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# 804-63-7: 1
CAS# 6119-70-6: 2

Canada

CAS# 804-63-7 is listed on Canada's DSL List
Canadian WHMIS Classifications: 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.
CAS# 804-63-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 6119-70-6 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 804-63-7 is listed on the TSCA Inventory.
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 in on the Inventory (40CFR720.3(u)(2)).

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.