

# Chemical Safety Data Sheet MSDS / SDS

## QUINACRINE DIHYDROCHLORIDE DIHYDRATE

Revision Date:2023-09-09 Revision Number:1

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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### Product identifier

Product name : QUINACRINE DIHYDROCHLORIDE DIHYDRATE  
CBnumber : CB7138654  
CAS : 83-89-6  
EINECS Number : 201-508-7  
Synonyms : Acrichine

#### Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

#### Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

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### SECTION 2: Hazards identification

#### Classification of the substance or mixture

no data available

#### Label elements

##### Pictogram(s)

Signal word : no data available

##### Hazard statement(s)

no data available

##### Precautionary statement(s)

##### Prevention

no data available

##### Response

no data available

##### Storage

no data available

##### Disposal

no data available

#### Other hazards

no data available

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## SECTION 3: Composition/information on ingredients

### Substance

Product name	: QUINACRINE DIHYDROCHLORIDE DIHYDRATE
Synonyms	: Acrichine
CAS	: 83-89-6
EC number	: 201-508-7
MF	: C <sub>23</sub> H <sub>30</sub> ClN <sub>3</sub> O
MW	: 399.96

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## SECTION 4: First aid measures

### Description of first aid measures

#### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately.

Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

#### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

#### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

#### Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

### Most important symptoms and effects, both acute and delayed

SYMPTOMS: Symptoms of exposure to this compound include discoloration of the skin, sclera and urine, exfoliative dermatitis, acute hepatic necrosis, agranulocytosis, aplastic anemia, corneal edema and psychosis. ACUTE/CHRONIC HAZARDS: When heated to decomposition this compound emits very toxic fumes. (NTP, 1992)

### Indication of any immediate medical attention and special treatment needed

For treatment of overdose: Recommended treatment consists of the following: Evacuating the stomach by gastric lavage ... Controlling seizures with benzodiazepines or ultrashort-acting barbiturates. Treating shock by administration of fluids and vasopressors ... Supporting respiration. Administer supportive measure such as maintaining an open airway, breathing and circulation. Closely observing for at least 6 hours those patients who have survived the acute phase and are asymptomatic.

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## SECTION 5: Firefighting measures

### **Extinguishing media**

Fires involving this compound should be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

### **Specific Hazards Arising from the Chemical**

Flash point data for this chemical are not available, but it is probably combustible. (NTP, 1992)

### **Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

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## **SECTION 6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### **Environmental precautions**

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

### **Methods and materials for containment and cleaning up**

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **Conditions for safe storage, including any incompatibilities**

Store below 40 deg C (104 deg F), preferably between 15 and 30 deg C (59 and 86 deg F) in a light-resistant container, unless otherwise specified by manufacturer. Store in a tight container.

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## **SECTION 8: Exposure controls/personal protection**

### **Control parameters**

#### **Occupational Exposure limit values**

no data available

#### **Biological limit values**

no data available

## Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

## Individual protection measures

### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

### Skin protection

Wear fire/flammable resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

Physical state	PHYSICAL DESCRIPTION: Bright yellowish needles or bright yellow powder. Odorless. pH of a 1% aqueous solution is about 4.5.(NTP, 1992). Used as an anti-malarial drug. Moderately toxic.
Colour	Bright yellow crystals
Odour	no data available
Melting point/freezing point	247-250°C
Boiling point or initial boiling point and boiling range	557.1°C at 760 mmHg
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	290.7°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	10 to 50 mg/mL at 64° F (NTP, 1992)
Partition coefficient n-octanol/water	no data available
Vapour pressure	1.8X10 <sup>-10</sup> mm Hg at 25 deg C (est)
Density and/or relative density	1.156 g/cm <sup>3</sup>
Relative vapour density	no data available
Particle characteristics	no data available

## SECTION 10: Stability and reactivity

### Reactivity

no data available

### Chemical stability

Sensitive to light. Quinacrine hydrochloride

### Possibility of hazardous reactions

QUINACRINE DIHYDROCHLORIDE is an acidic salt of an amine. React as a weak acid to neutralize bases.

### Conditions to avoid

no data available

### Incompatible materials

no data available

### Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### **STOT-single exposure**

no data available

### **STOT-repeated exposure**

no data available

### **Aspiration hazard**

no data available

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## SECTION 12: Ecological information

### **Toxicity**

Toxicity to fish: LC50 *Lepomis macrochirus* (Bluegill) 120 mg/L/24 hr (95% confidence limit: 73-198 mg/L); static

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### **Persistence and degradability**

no data available

### **Bioaccumulative potential**

An estimated BCF of 5400 was calculated for quinacrine(SRC), using an estimated log Kow of 5.75(1) and a regression-derived equation(2).

According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is very high(SRC), provided the compound is not metabolized by the organism(SRC).

### **Mobility in soil**

Using a structure estimation method based on molecular connectivity indices(1), the Koc of quinacrine can be estimated to be  $4.9 \times 10^6$ (SRC).

According to a classification scheme(2), this estimated Koc value suggests that quinacrine is expected to be immobile in soil. The estimated pKa values for quinacrine are 9.4 and 10.7(3), indicating that this compound will primarily exist in the cation form in the environment and cations generally adsorb more strongly to organic carbon and clay than their neutral counterparts(4).

### **Other adverse effects**

no data available

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## SECTION 13: Disposal considerations

### **Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to

make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## SECTION 14: Transport information

### UN Number

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### UN Proper Shipping Name

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### Transport hazard class(es)

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### Packing group, if applicable

ADR/RID: no data available

IMDG: no data available

IATA: no data available

### Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

### Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations specific for the product in question

#### European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

#### EC Inventory

Listed.

#### **United States Toxic Substances Control Act (TSCA) Inventory**

Not Listed.

#### **China Catalog of Hazardous chemicals 2015**

Not Listed.

#### **New Zealand Inventory of Chemicals (NZIoC)**

Not Listed.

#### **PICCS**

Not Listed.

#### **Vietnam National Chemical Inventory**

Not Listed.

#### **IECSC**

Not Listed.

#### **Korea Existing Chemicals List (KECL)**

Not Listed.

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## SECTION 16: Other information

### **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### **References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

#### **Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the

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