



### SAFETY DATA SHEET

#### 1. PRODUCT AND COMPANY IDENTIFICATION


1.1 Product identifiers	
i	Product Name : <b>Clioquinol</b>
ii	Chemical Formula : C <sub>9</sub> H <sub>5</sub> ClINO
iii	CAS No. : 130-26-7
iv	EC No. : 204-984-4
v	Hazardous : Yes
vi	Appearance : Brown powder
1.2 Relevant identified uses of the substance	
i	Identified uses : Antifungal, Laboratory chemical
1.3 Details of Manufacturer	
i	Company : <b>Samrat Pharmachem Limited</b>
ii	Address : Plot No. A2/3444-3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India.
iii	Phone : +91-7045456789 / 7046456789
iv	Email : <a href="mailto:contact@samratpharmachem.in">contact@samratpharmachem.in</a>
v	Webpage : <a href="http://www.samratpharmachem.com">www.samratpharmachem.com</a>
1.4 Emergency Number	
i	Emergency Phone : +91-7045456789 / 7046456789

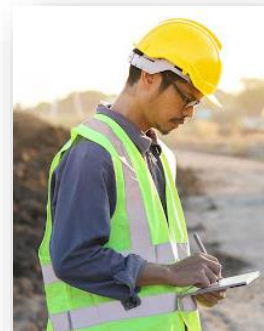


#### 2. HAZARD IDENTIFICATION

2.1 Classification of substance			
i	H301	Acute toxicity, oral	: (Category 3)
ii	H315	Skin irritation	: (Category 2)
iii	H317	Skin sensitization	: (Category 1)
iv	H319	Eye irritation	: (Category 2)
v	H335	Specific target organ toxicity-repeated exposure	: (Category 3)



2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Danger
iii	Hazard Statement(s)
	H301 : Toxic if swallowed
	H315 : Causes skin irritation
	H317 : May cause an allergic skin reaction
	H319 : Causes serious eye irritation.
iv	Precautionary Statement(s)
	P261 : Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
	P264 : Wash skin thoroughly after handling
	P271 : Use only outdoors or in a well-ventilated area.
	P280 : Wear protective gloves/ eye protection/ face protection.
	P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Supplemental Hazard statement : None



2.3 Hazards not otherwise classified (HNOC) or not covered by GHS	
	Physiologically highly active, therapeutically usable substance. The substance must be handled with the care required for hazardous materials.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
i	Molecular Weight : 305.50 g/mol
ii	Constituent Elements : C <sub>9</sub> H <sub>5</sub> ClINO

### 4. FIRST AID MEASURES

4.1 Symptoms	
i	<b>Most important symptoms and effects, both acute and delayed</b>
	Characterized by itching, burning, irritation or stinging, redness, swelling.
ii	<b>Indication of any immediate medical attention &amp; special treatment needed</b>
	If seeking medical attention, provide SDS document to physician.





4.2 Description of first aid measures	
i	Inhalation : If inhaled, move victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
ii	Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth out with water. If still feeling unwell, immediately make victim drink water (two glasses at least). Administer activated charcoal if necessary. Consult a doctor.
iii	Skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. Cover the irritated skin with an emollient. If skin irritation occurs: Get medical advice/attention.
iv	Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

### 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media	
i	Suitable extinguishing agents : Use water foam carbon dioxide dry powder.  Unsuitable extinguishing agents : For this substance/mixture no limitations of extinguishing agents are given.
ii	Special hazards arising from the substance or mixture : Carbon oxides Nitrogen oxides (NOx) Hydrogen chloride gas Hydrogen iodide Combustible.
iii	Special remarks on Explosion Hazard : No data available
iv	Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
v	Additional information : Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.



### 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment & emergency procedures	
	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert.





<b>6.2 Environmental precautions</b>	Do not let product enter drains. Use non-sparking tools and equipment. Pick up spill for recovery or disposal and place in a closed container.
<b>6.3 Methods and material for containment and cleaning up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

<b>7.1 Precautions for safe handling</b>	Avoid raising dust. Use earthed equipment. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep container tightly closed.  <b>Hygiene measures:</b> Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	<b>Storage conditions:</b> Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. <b>Storage class:</b> Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects.
<b>7.3 Specific end use(s)</b>	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated



## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>8.1 Control Parameters</b>	
i	<b>Ingredients with workplace control parameters</b>
	No data available
<b>8.2 Exposure Controls</b>	
i	Appropriate engineering controls
	Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.
ii	Personal protective equipment
(a)	Eye / face protection
	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU) safety glasses.



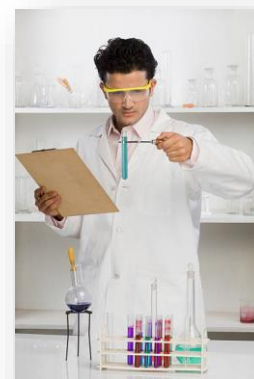


(b)	<b>Skin Protection</b>
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
(c)	<b>Body Protection</b>
	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
(d)	<b>Respiratory protection</b>
	Required when dusts are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type P2 The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
(e)	<b>Control of environmental exposure</b>
	Do not let product enter drains.



### 9. PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Form: Powder Colour: Brown	<b>Explosiveness</b>	Non explosive
<b>Odour</b>	Odourless	<b>Vapour pressure</b>	No data available
<b>Odour threshold</b>	No data available	<b>Relative vapour density at 20°C</b>	No data available
<b>pH-value</b>	3.42 at 21°C	<b>Relative density</b>	No data available
<b>Melting/Freezing point</b>	171-174 °C	<b>Solubilities</b>	4.6 g/L at 21°C – Soluble in water
<b>Boiling point</b>	Not determined	<b>Partition coefficient (n-octanol/water)</b>	No data available
<b>Flash Point</b>	Not determined	<b>Auto/Self-ignition temperature</b>	No data available
<b>Evaporation rate</b>	No data available	<b>Decomposition temperature</b>	No data available
<b>Flammability</b>	No data available	<b>Viscosity</b>	No data available
<b>Density</b>	2.047 g/cm <sup>3</sup>	<b>Poison Class</b>	No data available



### 10. STABILITY & REACTIVITY

i	<b>Reactivity</b>	: Reactive to oxidizing agents
ii	<b>Chemical stability</b>	: The product is chemically stable under recommended storage conditions. It is sensitive to light.
iii	<b>Possible hazardous reactions</b>	: No data available





iv	Conditions to avoid	: Exposure to light. Heat. Avoid dust formation. Incompatible materials.
v	Incompatible material	: Strong oxidizing agents, Acids, Acid chlorides, Acid anhydrides.
vi	Hazardous decomposition products	: Carbon oxides, Hydrogen chloride gas, Nitrogen oxides (NOx), Hydrogen iodide.

### 11. TOXICOLOGICAL INFORMATION

<b>11.1 Information on toxicological effects</b>			
i	Oral	LD50 mouse	69 mg/Kg
ii	Dermal	No data available	No data available
<b>11.2 Corrosion Irritation</b>			
i	Serious eye damage / irritation		Causes serious eye irritation
ii	Respiratory or skin irritation		May cause allergic skin reaction
iii	Germ cell mutagenicity		No data available
iv	Carcinogenicity		No data available
v	Reproductive Toxicity		No data available
<b>11.3 Additional information</b>			
No data available			



### 12. ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>			
i	<b>Particulars</b>	<b>Type</b>	<b>Value</b>
	Fish LC50	No data available	No data available
	Algae LC 50	No data available	No data available
ii	Ecology – general	No data available	
iii	Ecology – air	No data available	
iv	Hazardous to aquatic environment – short term (acute)	No data available	
v	Hazardous to aquatic environment – long term (chronic)	No data available	
<b>12.2 Persistence and degradability</b>			
i	Persistence and degradability		No data available
ii	Biodegradation		No data available
<b>12.3 Bio accumulative potential</b>			
i	BCF – Other aquatic organisms		No data available
ii	Partition coefficient n-octanol/water (Log Kow)		No data available
iii	Bioaccumulative potential		No data available
<b>12.4 Mobility in Soil</b>			
No data available			





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Manufacturers & Exporters of Pharmaceutical Chemicals

<b>12.5 Results of PBT and vPvB assessment</b>	
	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
<b>12.6 Other adverse effects</b>	
	Not known

## 13. DISPOSAL CONSIDERATIONS

<b>13.1 Waste disposal recommendation's</b>	
i	General instructions
	Waste must be disposed of in accordance with Federal, State and Local regulation.
ii	Product / Packaging disposal recommendations
	Avoid release to the environment



## 14. TRANSPORT INFORMATION

<b>14.1 In accordance with ADR / IMDG / IATA / ADN / RID</b>					
	<b>ADR</b>	<b>IMDG</b>	<b>IATA</b>	<b>ADN</b>	<b>RID</b>
i	UN Number				
	UN 2811	UN 2811	UN 2811	UN 2811	UN 2811
ii	UN proper shipping name				
	TOXIC SOLID, ORGANIC, N.O.S. (Clioquinol)	TOXIC SOLID, ORGANIC, N.O.S. (Clioquinol)	TOXIC SOLID, ORGANIC, N.O.S. (Clioquinol)	TOXIC SOLID, ORGANIC, N.O.S. (Clioquinol)	TOXIC SOLID, ORGANIC, N.O.S. (Clioquinol)
iii	Transport hazard class				
	6.1	6.1	6.1	6.1	6.1
iv	Hazardous class symbols				
v	Packing group				
	III	III	III	III	III
vi	Environment hazards: Dangerous for the environment				
	No	No	No	No	No
vii	Marine Pollutant				
	NA	No	NA	NA	NA

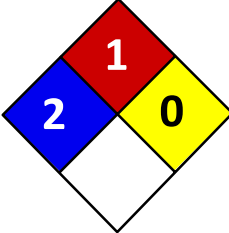




### 15. REGULATORY INFORMATION

15.1 Regulations	
i	This material safety data sheet complies with the requirements of Regulation (EC) No.1907/2006.
ii	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
ii	<b>National legislation</b> : Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

### 16. OTHER INFORMATION

16.1 NFPA Rating							
i	Health hazard	:	2 - Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.				
ii	Fire hazard	:	1 - Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur.				
iii	Reactivity	:	0 - Normally stable, even under fire exposure conditions, and is not reactive with water.				
16.2 HMIS Rating		<table border="1" style="width: 100%;"> <tr> <td style="background-color: blue; color: white; text-align: center;">Health</td> </tr> <tr> <td style="background-color: red; color: white; text-align: center;">Fire</td> </tr> <tr> <td style="background-color: yellow; text-align: center;">Reactivity</td> </tr> <tr> <td style="text-align: center;">Personal Protection</td> </tr> </table>		Health	Fire	Reactivity	Personal Protection
Health							
Fire							
Reactivity							
Personal Protection							
i	Health	:	No data available				
ii	Flammability	:	No data available				
iii	Physical	:	No data available				
iv	Personal Protection	:	No data available				
16.3 Further Information							
The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide.							





# Samrat Pharmachem Limited

**Manufacturers & Exporters of Pharmaceutical Chemicals**

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