MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION
CommonName : CLIOQUINOL - (IODO CHLORO HYDROXY QUINOLINE)

Name of Manufacturer / Supplier : ESKAY IODINE PVT. LTD.
Plot no: 907/2, GIDC Industrial Estate,
Jhagadia, Dist: Bharuch
Gujarat-393110, INDIA
Contact no: +91 - 7567039300
Email: sunilgsharda@sk1932.com
Chemical Name : 5-Chloro-8-hydroxy-7-iodoquinoline
Formula : C9H5CINOI
Molecular Weight : 305.5 g /mole

2. COMPOSITION

Name : Clioquinol
CAS No. : 130-26-7
% by Weight : 100%

3. HAZARDS IDENTIFICATION

Potential Acute Health Effect: Very hazardous in case of skin contact (irritant), of eye contact(irritant), of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening or occasionally, blistering.

Potential chronic health effect : Very hazardous in case of skin contact (irritant), of eye contact(irritant), of ingestion,of inhalation.

Hazardous in case of skin contact (permeator).

Carcinogenic Effects : Not available.
Mutagenic Effects : Not available.
Teratogenic Effects : Not available.
Developmental Toxicity : Not available.

The substance is toxic to kidneys, lungs, the nervous system, liver, mucous membranes. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to an highly toxic material may produce general deterioration of health by accumulation in one or many human organs. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

4. FIRST AID MEASURES
Eye contact : Check for and remove any contact lenses. Do not use an eye ointment. Seek medical attention.
Skin Contact: After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention.

Serious skin contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Allow the victim to rest in a well ventilated area. Seek immediate medical attention.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth to mouth resuscitation. Seek medical attention.

Ingestion: Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested, the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

Serious Ingestion: Not available.

5. FIRE & EXPLOSION DATA

Flammability of the product: May be combustible at high temperature.
Auto ignition temperature: Not applicable
Flash Points: Not applicable
Flammable Limits: Not applicable
Products of Combustion: These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2…), halogenated compounds.

Fire hazards in presence of various substances: Not Available.
Explosion hazards in presence of various substances: Not Available
Risk of explosion of the product in presence of Mechanical Impact: Not Available.
Risk of explosion of the product in presence of Static Discharge: Not Available.

Fire Fighting Media and Instructions: Small Fire: Use Dry chemical Powder.
Large Fire: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available
Special Remarks on Explosion Hazards: Not available

6. ACCIDENTAL RELEASEMEASURES

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Use a shovel to put the material into a convenient waste disposal container.
7. HANDLING AND STORAGE

Precautions:
Keep locked up; keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

Storage:
Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If users operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved / certified respirator or equivalent. Gloves

Personal Protection in case of a large spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient, consult a specialist before handling this product.

Exposure Limits:
Not available.

9. PHYSICAL & CHEMICAL PROPERTIES

Physical state and appearance:
Solid. (Powdered Solid)

Molecular weight:
305.5 g / mole

pH (1% Solution / Water):
Not available

Boiling point:
Decomposes

Melting Point:
171 °C (339.8 °F)

Critical Temperature:
Not available

Specific Gravity:
Not available

Vapor Density:
Not available

Volatile:
Not available

Odor Threshold:
Not available

Water / oil Dist. Coeff:
Not available

Ionicity (In Water):
Not available

Dispersion Properties:
Not available

Solubility:
Not available

10. STABILITY AND REACTIVITY
11. TOXICOLOGICAL INFORMATION

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to animals: Acute oral toxicity (LD50) : 69 mg/kg (Mouse).

Chronic effects on humans: The substance is toxic to kidneys, lungs, the nervous system, Liver, mucous membranes.

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Hazardous in case of skin contact (permeator).

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available
BOD5 and COD: Not available
Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the products of Biodegradation: The products of degradation are more toxic.
Special remarks on the products of Biodegradation: Not available

13. DISPOSAL CONSIDERATIONS

Waste disposal: Recycle to process, if possible. Consult your local or regional authorities.

14. TRANSPORT INFORMATION

DOT Classification: Class 6.1: Poisonous material

Identification: Toxic Solids n.o.s.: UN2811 PG: Not available

Special Provision for transport: Not applicable

15. REGULATORY INFORMATION

Federal and state regulation: TSCA 8(b) inventory: Clioquinol
Other Regulations:

Protective Equipment:
Gloves
Lab Coat
Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Splash goggles.

16. OTHER INFORMATION

All chemicals may pose unknown hazards and should be used with caution. This material safety data sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the users responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Eskay Iodine Pvt. Ltd. assumes no responsibility for the completeness or accuracy of the information contained herein.

For ESKAY IODINE PVT. LTD.

[Signature]

AUTHORISED SIGNATORY