

MATERIAL SAFETY DATA SHEET

Chemical Product

Product Name: QUINOLINE

CAS#: 91-22-5

C.I. No.: Not available.

Synonym : Benzo[b]pyridine

Chemical Name : Not available.

Chemical Formula: C₉H₇N

Composition and Information on Ingredients

Name	S.K.U	% by Weight
QUINOLINE	GCS-6698	100%

Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (permeator), of eye contact (irritant), of ingestion. Hazardous in case of skin contact (irritant), of inhalation. Inflammation of the eye is characterized by redness, watering, and itching.

Potential Chronic Health Effects:

Very hazardous in case of skin contact (permeator), of eye contact (irritant). Hazardous in case of skin contact (irritant), of inhalation. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. 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. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

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 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.

Fire and Explosion Data

Flammability of the Product: Combustible.

Auto-Ignition Temperature: 420°C (788°F)

Flash Points: CLOSED CUP: 59°C (138.2°F).

Flammable Limits: LOWER: 1.2%

Products of Combustion: These products are carbon oxides (CO, CO₂).

Fire Hazards in Presence of Various Substances : Not applicable.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks 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.

Accidental Release Measures**Small Spill:**

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:

Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk.

Handling and Storage**Precautions:**

Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapour/spray. 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

Storage:

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place.
Ground all equipment containing material. Keep container dry. Keep in a cool place.

Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection :

Splash goggles. Lab coat. Vapor 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.

Physical and Chemical Properties

Physical state and appearance	: Liquid. (Hygroscopic liquid.)
Odor	: Strong.
Taste	: Not available.
Molecular Weight	: 129.16 g/mole
Color	: Colourless.
pH (1% soln/water)	: Not available.
Boiling Point	: 238°C (460.4°F)
Melting Point	: -16°C (3.2°F)
Critical Temperature	: Not available.
Specific Gravity	: 1.09 (Water = 1)
Vapor Pressure	: Not available.
Vapor Density	: 4.5 (Air = 1)
Volatility	: Not available.
Odor Threshold	: Not available.

Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: See solubility in water.
Solubility	: Partially soluble in cold water.

Stability and Reactivity Data

Stability: The product is stable.
Instability
Temperature:
Not available.
Conditions of
Instability:
Not available.
Incompatibility with various substances: Not available.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on
Reactivity: Not available.
Special Remarks on
Corrosivity: Not available.
Polymerization: No.

Toxicological Information

Routes of Entry: Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals: Acute oral toxicity (LD50): 331 mg/kg [Rat]. Acute dermal toxicity (LD50): 540 mg/kg [Rabbit].
Chronic Effects on Humans : Not available.
Other Toxic Effects on Humans : Very hazardous in case of skin contact (permeator), of ingestion. Hazardous in case of skin contact (irritant), of inhalation.
Special Remarks on Toxicity to Animals: Not available.
Special Remarks on Chronic Effects on Humans: Not available.
Special Remarks on other Toxic Effects on Humans: Not available.

Toxicological Data on Ingredients : Quinoline: ORAL (LD50): Acute: 331 mg/kg [Rat]. DERMAL (LD50): Acute: 540 mg/kg [Rabbit].

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.

Disposal Considerations

Waste Disposal:

Transformation Information

Land transport (ADR-RID)
General information : Not regulated.

Sea transport (IMDG) [English only]

General information : Not regulated.

Air transport (ICAO-IATA) [English only]
General information : Not regulated.

Other Regulatory Information

Federal and State Regulations: Pennsylvania RTK: Quinoline Massachusetts RTK: Quinoline TSCA 8(b) inventory: Quinoline SARA 313 toxic chemical notification and release reporting: Quinoline CERCLA: Hazardous substances.: Quinoline
Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada): CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F). CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).
DSCL (EEC): R21/22- Harmful in contact with skin and if swallowed. R38- Irritating to skin. R41- Risk of serious damage to eyes.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 2

Reactivity: 0

Personal Protection: H

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 2

Reactivity: 0

Specific hazard:

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

Additional Information

References: Not available.

Other Special Considerations: Not available.

Disclaimer:

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