Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

ESTD.1976 MULTI CHEM YOUR CHEMICAL PARTNER

SAFETY DATA SHEET

QUINOLINE

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

1.1 Product identifier:	
CAS Number:	91-22-5
EC number:	202-078-1
1.2 SYNONYMS:	• 1-Azabenzene • Benzopyridine • 1-Benzopyridine • 1,2-Benzopyridine

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Acute toxicity, oral (Category 3) Acute toxicity, dermal (Category 4) Skin Corrosion/irritation (Category 2) Serious Eye Damage/Eye Irritation (Category 2) Germ Cell Mutagenicity (Category 2) Carcinogenicity (Category 1B) Chronic aquatic toxicity Category 2
Hazard Pictograms:	
Signal Word:	Danger
Hazard statements:	**H301:** Toxic if swallowed **H312:** Harmful in contact with skin **H315:** Causes skin irritation **H319:** Causes serious eye irritation **H341:** Suspected of causing genetic defects **H350:** May cause cancer

	H411: Toxic to aquatic life with long lasting effects
Precautionary Statements:	**P301 + P310:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician **P280:** Wear protective gloves/ protective clothing/ eye protection/ face protection **P302 + P352:** IF ON SKIN: Wash with plenty of soap and water **P312:** Call a POISON CENTER or doctor/ physician if you feel unwell **P362:** Take off contaminated clothing and wash before reuse **P305 + P351 + P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing **P405:** Store locked up. **P501:** Dispose of contents/ container to an approved waste disposal plant.
2.3 Other hazards:	
Inhalation:	may cause respiratory irritation, dizziness, nausea, and headaches, and prolonged exposure can lead to more severe health effects.
Ingestion:	may cause nausea, vomiting, abdominal pain, dizziness, and in severe cases, it can lead to central nervous system depression and organ damage.
Skin Contact:	may cause irritation, redness, and dermatitis, and prolonged exposure could lead to more severe skin damage.
Eye contact:	may cause irritation, redness, pain, and possible damage to the eye tissue.

Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

Chronic Exposure:	Chronic exposure may lead to neurological effects such as headaches, dizziness, and fatigue, as well as potential liver and kidney damage, and increased risk of cancer due to its carcinogenic properties.
Aggravation of pre-existing conditions:	may aggravate pre-existing conditions such as respiratory disorders, liver or kidney diseases, and neurological disorders, potentially worsening symptoms or causing complications.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 91-22-5 QUINOLINE
Identification number(s):	EC number: 202-078-1

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact:	Remove contaminated clothing. Wash with soap and water. Consult a physician.
After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician.

After swallowing:	Rinse mouth with water. Immediately after ingestion. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Acute exposure may cause respiratory irritation, dizziness, nausea, and headache, while delayed effects can include liver and kidney damage, neurological issues, and potential carcinogenic effects with prolonged exposure.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam.
5.2 Special hazards arising from the substance or mixture:	Carbon dioxide, carbon monoxide, nitrogen oxides.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device. Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations.

	Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Do not enter this chemical into drains.
6.3 Methods and material for containment and cleaning up:	Take up spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	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. Wash and dry hands.
	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	Liquid
Colour:	Pale yellow
Odour:	Pungent
pH-value:	7.3
Melting point/Melting range:	-15°C
Boiling point/Boiling range:	237°C
Flammability (solid, gaseous):	Non- Flammable
Ignition temperature:	480°C
Decomposition temperature:	Not determined
Self-igniting:	None
Flash point:	101°C
Danger of explosion:	None
Explosion limits: Lower:	1.2%
Explosion limits: Upper:	7.3%
Vapour pressure:	0.01 kPa at 25°C.
Density at 20 °C:	1.09 g/cm^3.
Relative density:	1.09
Vapour density:	4.9
Evaporation rate:	Not determined
Solubility in / Miscibility with-·water at 20 °C:	Slightly soluble
Partition coefficient:(n-octanol/water)	2.56
Viscosity:	1.43 mPa·s at 20°C

SECTION 10: Stability and reactivity

10.1 Reactivity	May react with strong oxidizers.
10.2 Chemical stability	This chemical is stable under storage conditions.
10.3 Possibility of hazardous reactions	may react with strong oxidizing agents, which could lead to fire or explosive hazards.
10.4 Conditions to avoid	Incompatible products. Excess heat.

10.5 Incompatible materials	Strong oxidizing agents. Strong acids. nitrogen oxides. Peroxides.
10.6 Hazardous decomposition products	carbon monoxide, carbon dioxide. Nitrogen oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	**LD50** (Oral, Rat): 270 mg/kg **LD50** (Dermal, Rabbit): no data available **LC50** (Inhalation Rat): no data available
Skin corrosion/Irritation:	Can cause serious irritation.
Serious eye damage/irritation:	Can cause serious irritation.
Respiratory damage/irritation:	No data available
Ingestion:	No data available
Germ cell mutagenicity:	May cause mutations.
Carcinogenicity:	May cause cancer.
Reproductive toxicity:	No data available
Specific target organ toxicity - single exposure:	No data available
Specific target organ toxicity - repeated exposure:	No data available
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Moderate Biodegradable

SECTION 12: Ecological information

12.1 Toxicity **Aquatic toxicity:**	LC50(fish): 40 mg/l (24hr) EC50(daphnia): 57.3 mg/l (24hr) EC50(algae): 90 mg/l (72hr)
12.2 Persistence and degradability:	Moderately Biodegradable
12.3 Bioaccumulative potential:	moderate bioaccumulative

Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

12.4 Mobility in soil:	moderate mobility
12.5 Other adverse effects:	No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Soap and water, solvents, absorbents, neutral detergents.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	2656
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	QUINOLINE
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	6.1
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	Yes, harmful for aquatic life.
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is classified in listed substance flammable and toxic substance.
Named dangerous substances:	This substance is listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has not been carried out.

Multichem Specialities Pvt. Ltd.
1215, Dalamal Tower,
Nariman Point, Mumbai 400021, India
T: +91 2243432121
E: multichem@multichemindia.com
www.multichemindia.com

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.