Safety Data Sheet

Quinoline-d_7

Section 1. Chemical product and company identifications

Product code: D-1450
Chemical formula: C_9D_7N
CAS: 34071-94-8
CAS (unlabelled): 91-22-5
Synonyms: 1-Benzazine, Benzo[*b*]pyridine, 1-Azanaphthalene

Supplier / Manufacturer:

C/D/N Isotopes Inc.
88 Leacock Street
Pointe-Claire (Québec) H9R 1H1
Phone: 514-697-6254
Toll-Free (Canada & USA): 1-800-565-4696
Fax: 514-697-6148
Website: www.cdnisotopes.com

In case of emergency:

TOXYSCAN HOTLINE: 1-855-780-0599

Section 2. Hazards identifications

GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

GHS Classification:
- Acute toxicity, Oral (Category 4)
- Acute toxicity, Dermal (Category 3)
- Skin irritation (Category 2)
- Eye irritation (Category 2A)
- Germ cell mutagenicity (Category 2)
- Carcinogenicity (Category 1B)

GHS Label elements:
- Pictograms: 
- Signal word: Danger

Hazards statement:
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H341 Suspected of causing genetic defects.
- H350 May cause cancer.

Precautionary statement:
- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P264 Wash skin thouroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P281 Use personal protective equipment as required.
- P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332 + P313 IF SKIN irritation occurs: Get medical advice/attention.
- P337 + P313 IF eye irritation persists: Get medical advice/attention.
- P361 Remove/Take off immediately all contaminated clothing.
- P362 Take off contaminated clothing and wash before reuse.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition and information on ingredients

Name	CAS	Concentration %
Quinoline-d_7	34071-94-8	98-100%

Section 4. First aid measures

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact: Wash off with soap and plenty of water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Indication of immediate medical attention and special treatment needed, if necessary: No data available
Most important symptoms and effects, both acute and delayed: May cause redness and tearing of the eyes. Burning sensation.

Section 5. Firefighting measures

Flammability of the product: Flammable in the presence of a source of ignition when the temperature is above the flash point.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides
Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.
Environmental precautions: Do not let product enter drains. Discharge into the environment must be avoided.
Methods for cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation.
Storage: Store at room temperature. Adequate ventilation. Protect from moisture.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.
Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).
Respiratory: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).
Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 129.16 g/mol
Physical status: Liquid
Color: Colorless to light yellow
Odour: Pungent
Density: 1.093 g/cm^3
Melting point: -15 °C (5 °F)
Boiling point: 237 °C (459 °F)
Vapour pressure: 0.09 hPa (0.07 mmHg) at 20 °C (68 °F)
Vapour density: 4.45 (Air = 1)
Partition coefficient (octanol/water): log Pow: 2.03
Water solubility: 6.1 g/L
Lower explosion limit: 1.2 Vol %
Upper explosion limit: 7 Vol %
Auto-ignition temperature: 480°C (896°F)
Flash point: 101 °C (214 °F)

Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.
Incompatibility: Strong oxidizing agents.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Reactivity conditions: No data available.

Section 11. Toxicological information (unlabelled)

Toxicological data: Quinoline

Information on ingredients:

Name	CAS	LD_{50}	LC_{50}
Quinoline	91-22-5	Oral - Rat - 331 mg/kg Dermal - Rat - 590 mg/kg	No data available

Potential acute effects

- **Eyes:** Causes serious eye irritation.
- **Skin:** Toxic if absorbed through skin. Causes skin irritation.
- **Inhalation:** No data available.
- **Ingestion:** Harmful if swallowed.

Potential chronic effects

- **Carcinogenic effects:** Possible human carcinogen. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH..
- **Mutagenic effects:** In vitro tests showed mutagenic effects. Genotoxicity in vitro - Mouse - lymphocyte. Mutation in mammalian somatic cells. Genotoxicity in vitro - Rat - Liver. Unscheduled DNA synthesis. Genotoxicity in vivo - Mouse - Intraperitoneal. Micronucleus test. Genotoxicity in vivo - Mouse - Intraperitoneal. Mutation in mammalian somatic cells.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** No data available

Section 12. Ecological information

Ecological data:

Name	Results	Species	Period
Quinoline	67 mg/l LC50	Oriyas latipes	96 h
	25 mg/l EC50	Daphnia magna	48 h
	29 mg/l EC50	Selenastrum capricornutum	72 h

Effects on environment: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Mobility: No data available.
Environmental precautions: No data available
Persistence and degradability: Aerobic. Result: 100 % - Readily biodegradable.
Bioaccumulative potential: Cyprinus carpio - 6 w - 0.8 mg/l. Bioconcentration factor (BCF): 8.

Section 13. Disposal considerations

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Quinoline
UN number: UN2656
Class: 6.1
Packaging group: III

Additional information: None

Section 15. Regulatory information

UNITED STATES:
NFPA classification

Health: 3
Flammable: 1
Reactivity: 0
Special conditions: None

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

California proposition 65 requirements : Not Listed
SARA section 313 (specific toxic chemical listings) : Listed
CERCLA reportable quantity : Listed
Sections 302-304 reportable quantity : Listed
Community Right-to-Know (Sections 311 and 312) : Not Listed

Section 16. Additional information

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Elaborated by: **Toxyscan Inc., 1-866-780-0599**
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This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.