

Revision Date 19-Apr-2012

Revision Number 6

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product Description:

Quinoline

Cat No.

132190000; 132190010; 132190025; 132195000

Synonyms

Benzo[b]pyridine

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use

Laboratory chemicals

Uses advised against

No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
Janssen Pharmaceuticaaan 3a
2440 Geel, Belgium

E-mail address

begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01

For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99

Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300

CHEMTREC Phone Number, Europe: 001-703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
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

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s)

T - Toxic

N - Dangerous for the environment

R-phrases(s)

R45 - May cause cancer

R68 - Possible risk of irreversible effects

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SECTION 2. HAZARDS IDENTIFICATION

Risk Combination Phrases

R21/22 - Harmful in contact with skin and if swallowed
R36/38 - Irritating to eyes and skin
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Label Elements



Signal Word

Danger

Hazard Statements

H350 - May cause cancer
H411 - Toxic to aquatic life with long lasting effects
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H341 - Suspected of causing genetic defects
H311 - Toxic in contact with skin
H301 - Toxic if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P201 - Obtain special instructions before use
P273 - Avoid release to the environment
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Quinoline 91-22-5	EEC No. 202-051-6	>95	91-22-5	Xn; R21/22 Xi; R36/38 Carc.Cat.2; R45 N; R51-53 Muta.Cat.3; R68	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Muta. 2 (H341) Carc. 1B (H350) Aquatic Chronic 2 (H411)	01-2119493942-26
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For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16
SECTION 4. FIRST AID MEASURES
Description of first aid measures
Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Obtain medical attention.

Ingestion

Call a physician immediately. Clean mouth with water.

Inhalation

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Obtain medical attention.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES
Extinguishing media
Suitable Extinguishing Media

 Water spray. Carbon dioxide (CO₂). Dry chemical. alcohol-resistant foam. Do not use a solid water stream as it may scatter and spread fire.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Vapors may form explosive mixtures with air.

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal..

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Remove and wash contaminated clothing before re-use. Do not ingest. Use only in area provided with appropriate exhaust ventilation. Wash thoroughly after handling. Use only under a chemical fume hood.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from direct sunlight.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Component

Quinoline

Latvia	Lithuania	Luxembourg	Malta	Romania
STEL: 0.5 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³ STEL: 0.5 mg/m ³			

Component

Quinoline

Russia - TWA	Slovak Republic	Slovenia	Sweden	Turkey
TWA: 0.1 mg/m ³ STEL: 0.5 mg/m ³ aerosol and vapor				

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)

No information available.

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Predicted No Effect Concentration (PNEC) No information available.

Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection	Goggles
Hand Protection	Protective gloves
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls No information available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Brown
odor	pungent
pH	7.3 5 g/L aq.solution
Vapor Pressure	<0.1 mbar @ 20 °C
Vapor Density	4.45
Boiling Point/Range	237°C / 458.6°F
Melting Point/Range	-15°C / 5°F
Flash Point	101°C / 213.8°F
Autoignition Temperature	480°C / 896°F
Explosion Limits	
Lower	1.2 vol%
Upper	7 vol%
Water Solubility	Slightly soluble
Specific Gravity	1.095
Molecular Formula	C9 H7 N
Molecular Weight	129.16

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under normal conditions. Hygroscopic. Light sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur.



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Hazardous Reactions . No information available.

Conditions to Avoid

Excess heat, Exposure to light, Incompatible products, Exposure to moist air or water.

Incompatible Materials

Strong oxidizing agents, Strong acids, nitrogen oxides (NOx), Peroxides.

Hazardous Decomposition Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO2).

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Quinoline	270 mg/kg (Rat) 331 mg/kg (Rat)	1370 mg/kg (Rat) 540 µL/kg (Rabbit)	

Chronic Toxicity

Carcinogenicity R45 - May cause cancer

Sensitization No information available.
 Mutagenic Effects Ames test: positive.
 Reproductive Effects No information available.
 Developmental Effects No information available.
 Target Organs No information available.
 Other Adverse Effects See actual entry in RTECS for complete information
 Endocrine Disruptor Information None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea

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Quinoline	51 mg/L EC50 = 4 h 90 mg/L EC50 = 96 h 84 mg/L EC50 = 72 h	40 mg/L LC50 96 h 77.8 mg/L LC50 96 h 46 mg/L LC50 96 h	EC50 34.34 - 130.29 mg/L 60 h	28.5 mg/L EC50 = 48 h 45.9 - 57.3 mg/L EC50 48 h
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Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Component	log Pow
Quinoline	2.06

Mobility in soil

Results of PBT and vPvB assessment

Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 2656
Hazard Class 6.1
Packing Group III
Proper Shipping Name QUINOLINE

ADR

UN-No 2656
Hazard Class 6.1
Packing Group III
Proper Shipping Name QUINOLINE

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SECTION 14. TRANSPORT INFORMATION
IATA

UN-No	2656
Hazard Class	6.1
Packing Group	III
Proper Shipping Name	QUINOLINE

SECTION 15. REGULATORY INFORMATION
Safety, health and environmental regulations/legislation specific for the substance or mixture
International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Quinoline	202-051-6	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

AICS - Inventory of Chemical Substances

KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment
SECTION 16. OTHER INFORMATION
Full text of R-phrases referred to under sections 2 and 3

R45 - May cause cancer

R68 - Possible risk of irreversible effects

R21/22 - Harmful in contact with skin and if swallowed

R36/38 - Irritating to eyes and skin

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SECTION 16. OTHER INFORMATION

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Revision Summary

Reason for revision (M)SDS sections updated, 2, 3, 11.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet