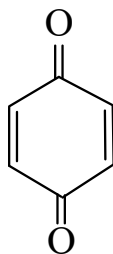




>>Entry Name: 1,4-Benzoquinone, 8Cl

Synonym(s): 2,5-Cyclohexadiene-1,4-dione, 9Cl. Quinone. *p*-Benzoquinone



CAS Registry Number: 106-51-4

Related CAS Registry Numbers(s): 3225-29-4

Molecular Formula: C₆H₄O₂

Molecular Weight: 108.096

Accurate Mass: 108.02113

Percentage Composition: C 66.67%; H 3.73%; O 29.60%

Biological Source: Component of arthropod defensive secretions; isol. from the grasshopper *Romalea microptera*. Metab. of *Streptothrix chromogena*

Use/Importance: Dienophile, H acceptor for Oppenauer oxidns., mild dehydrogenating agent. Reagent for the spectrophotometric detn. of amines and amino acids. Used as a 0.34mM soln. in DMSO for fluorimetric detn. of CN⁽⁻⁾

Physical Description: Yellow cryst. with penetrating irritating (chlorine-like) odour (petrol or H₂O)

Melting Point: Mp 117°

Solubility: Sol. EtOH, Et₂O; v. spar. sol. H₂O

Other Data: Sublimes. Steam-volatile. Undergoes radical, cationic or anionic homopolym. to give low mol. wt. polyquinones containing some hydroquinone units. Copolym. with diamines gives oligomeric polyimines

Hazard & Toxicity: Flammable, fl. p. 38-93°, autoignition temp. 560°. Irritant to all tissues. Acute or chronic exposure can damage eyes, and cause skin discolouration, erythema, and formation of papules and vesicles. LD₅₀ (rat, orl) 130 mg/kg. OES: long-term 0.1 ppm; short-term 0.3 ppm

Aldrich: B1035-8

Fluka: 12315

Sigma: B1266

>>Derivative: Monoxime

see 4-Nitrosophenol, [HMH22-T](#)

>>Derivative: Dioxime

CAS Registry Number: 105-11-3

Molecular Formula: C₆H₆N₂O₂

Molecular Weight: 138.126

Accurate Mass: 138.042928

Percentage Composition: C 52.17%; H 4.38%; N 20.28%; O 23.17%

Physical Description: Pale yellow cryst.

Melting Point: Mp 240 dec.°

Hazard & Toxicity: LD₅₀ (rat, orl) 464 mg/kg

Aldrich: B1040-4

Fluka: 12320

>>Derivative: Monosemicarbazone

Physical Description: Yellow cryst.

Melting Point: Mp 178 dec.°

>>Derivative: Disemicarbazone

Physical Description: Red cryst.

Melting Point: Mp 241-243 dec.°