Neocuproine

Product Number  N1501
Store at Room Temperature

**Product Description**
Molecular Formula:  C_{14}H_{12}N_{2}
Molecular Weight:  208.3
CAS Number:  484-11-7
Melting Point:  159-160 °C
Synonym:  2,9-dimethyl-1,10-phenanthroline, 2,9-dimethyl-o-phenanthroline

Neocuproine is a aromatic heterocyclic compound and methylated phenanthroline derivative. It can be used for the spectrophotometric determination of copper and chelates cuprous ion in the presence of ferrous ion. The Cu-neocuproine complex consists of two molecules of neocuproine with one cuprous ion, with a maximum absorption at 454 nm (E_{mM} 7.95). A study of the extraction of the Cu-neocuproine complex from acetate buffered aqueous solutions by propylene carbonate has been published.

Treatment with neocuproine of the mouse corpus cavernosum precontracted with phenylephrine to probe nitrergic relaxations has been investigated. Neocuproine has been used to mitigate the oxidative effects of copper ions and cytochrome P450 on rat aorta. The effect of neocuproine on the nitrergic neurotransmitter in the mouse gastric fundus has been studied.

The cross-coupling reaction of aryl iodides and thiols using neocuproine and Cul has been described. Oligonucleotide ribozyme mimics that contain neocuproine conjugates have been prepared for use as RNA cleaving agents.

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**
The product is soluble in methanol (50 mg/ml), yielding a clear, pale yellow solution. It is soluble in ethanol, n-amyl alcohol, isoamyl alcohol, n-hexyl alcohol, chloroform and benzene, and slightly soluble in cold water.

**References**
1. The Merck Index, 12th ed., Entry# 6537.