



# Product Specification

## Product Name: 1,10-PHENANTHROLINE Monohydrate AR

Alternate Name(s) Phenanthroline hydrate; 4,5-phenanthroline; o-phenanthroline monohydrate;  
Description orthophenanthroline monohydrate; 4,5-diazaphenanthrene monohydrate.  
White crystalline powder.

### Properties

Chemical Formula:  $C_{12}H_8N_2 \cdot H_2O$   
Molecular Weight: 198.22

Product Code: PA180  
CAS No. 5144-89-8

### General Information:

Soluble in alcohol, benzene and acetone. Incompatible with strong oxidisers.

### Hazard and Safety Data

UN Group: None Allocated  
Class: None Allocated  
UN Number: None Allocated  
Hazchem code: None Allocated  
CS MSDS Code: 1CHJF  
Poison schedule: Not Scheduled  
Emergency  
Procedure Guide No.: N/A

### Quality Specification

Assay: 99.5 % min.

### Specific Properties and Impurities [Typical levels]:

Solubility in Water	Soluble in 300 parts water.
Sensitivity to iron	1:10,000,000
Melting Point	101-102 °C
Suitability as redox indicator	Passes test
Suitability for determining iron	Passes test
Solubility (1g in 10ml ethanol)	Clear & colourless

CONFORMS TO ACS

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