

## 2,2'-BIPYRIDYL

**SYNONYMS:** 2,2'-Bipyridine  
2,2'-Dipyridyl

**DESCRIPTION:** Yellow to fawn-brown crystalline granular solid.

**EMPIRICAL FORMULA:** C<sub>10</sub>H<sub>8</sub>N<sub>2</sub>

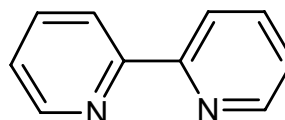
**CAS REGISTRY NUMBER:** 366-18-7

**HS TARIFF NUMBER:** 2933.39

**PHYSICAL PROPERTIES:**

Melting Point:	156.2°F/70°C
Boiling Point:	521.6°F/272°C
Flash Point:	250°F/121°C
Viscosity:	151 cs at 194°F/90°C
Specific Gravity:	1.0135 at 158°F/70°C
Solubility:	Soluble in alcohol, ether, xylene and ethylene glycol. Practically insoluble in water.

**STRUCTURE:**



**MOLECULAR WEIGHT:** 156

**CHEMICAL PROPERTIES:**

Reduces to dipiperidyl under mild conditions. Forms strong transition metal complexes (e.g., forms ruthenium complexes) which can produce hydrogen and oxygen from water photochemically. Quaternization with ethylene bromide yields Diquat. Can be oxidized to a-picolinic acid, 2,2'-bipyridyl-1,1'-dioxide. Forms 1-methyl-(2,2)-bipyridilium with methyl iodide. Reacts with xylene bromide, dihaloalkanes, silane derivatives, boranes, and Grignard reagents.

**SPECIFICATIONS:**

Color at manufacture:	13 maximum
(Gardner scale)	May darken on storage.
Crystallizing Point:	69.2°C minimum
Water:	0.1% maximum
2,2'-bipyridyl content:	
(by difference)	97% minimum

**AVAILABILITY:** Commercial Quantities

**FOR ADDITIONAL INFORMATION AND HANDLING INSTRUCTIONS READ CYTEC'S MATERIAL SAFETY DATA SHEET.**

**FOR YOUR PROTECTION**

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