

Nitrogen Atoms



Nitrogen, Nitrile Triple Bond

Covalent radius 0.60Å along triple bond; this face marked 'C≡' for triple bonding with Carbon, Acetylenic Triple Bond to form nitriles or 'cyano' compounds; second socket notched to accept restricted rotation connectors. Covalent radius 0.70Å along single bond. Blue.

Catalog No.	Product
CGS 8050.79	Nitrogen, Nitrile Triple Bond



Nitrogen, Aromatic-5

For use in five-membered rings such as in Imidazole or in positions 7 and 9 in Purine. Covalent radius 0.68Å to atoms within ring and covalent radius 0.73Å to atoms outside ring; bond angle 108° between atoms within ring and 126° between single-bonded atom outside ring and double-bonded ring atoms; symbol '5' stamped on one inner face. Partial double-bond sockets notched. Amine Cap converts Nitrogen, Aromatic-5 to azo nitrogen.

Catalog No.	Product
CGS 8051.79	Nitrogen, Aromatic-5



Nitrogen, Amide

Covalent radii stamped on each face of this atom as follows: 0.60Å to amine carbon, 0.70Å to hydrogen bond hydrogen; 0.70Å to chain carbon. Bond angle 123° between amine carbon and H-bond hydrogen; 114° between chain carbon and H-bond hydrogen. One face has an 'H' stamped to facilitate construction of transpeptide linkages. Also used for general planar trigonal nitrogen as in NO₂ and with the Amine Cap as azo nitrogen.

Catalog No.	Product
CGS 8052.79	Nitrogen, Amide



Nitrogen, Aromatic-6

For use in six-membered rings such as Pyridine and Pyrimidine. Covalent radius 0.69Å within ring and covalent radius 0.73Å to single atoms outside ring; symbol '6' stamped on one inner face. Partial double-bond sockets notched to accept restricted rotation connectors.

Catalog No.	Product
CGS 8053.79	Nitrogen, Aromatic-6



Nitrogen, Tetrahedral

Connector sockets notched for simulation of restricted rotational potential. Covalent radius 0.70Å; bond angle 109°30'.

Catalog No.	Product
CGS 8054.79	Nitrogen, Tetrahedral



Nitrogen, Tetrahedral-4

For constructing four-membered rings. Identical to Carbon, Tetrahedral-4, except for color. With Amine Cap it is converted to a trivalent nitrogen for use in certain structures such as b-lactam ring in penicillin. Blue.

Catalog No.	Product
CGS 8055.79	Nitrogen, Tetrahedral-4



Nitrogen, Trigonal-4

For constructing four-membered rings. Identical to Carbon, Trigonal-4, except for color. For constructing models such as free b-lactam and the four-membered ring in Δ²-cephalosporins. Blue.

Catalog No.	Product
CGS 8056.79	Nitrogen, Trigonal-4