



## 671-2104 Buckyball Allotrope

A Buckyball is a type of fullerene. What are fullerenes? A fullerene is any molecule composed entirely of carbon, in the form of a hollow sphere, ellipsoid, tube, and many other shapes. Spherical fullerenes are also called buckyballs. Cylindrical ones are called carbon nanotubes or buckytubes. Fullerenes are similar in structure to graphite, which is composed of stacked graphene sheets of linked hexagonal rings. Buckyballs are named after Buckminster Fuller, who designed geodesic domes that resemble a buckyball.

The chemical formula for caffeine is  $C_6H_8N_4O_2$ . The allotrope (an allotrope is a molecule composed all of one element but differs in structure. For example, graphite and diamond are both composed entirely of carbon, but they differ structurally). The 60 carbon atoms are composed in alternating hexagons and pentagons, exactly like a soccer ball.

This particular molecule is easy to assemble.

To assemble your molecule, notice the holes on each particular atom. Press a connector firmly into this hole until it is flush with the surface of the atom. The connection should be firm but still easy to disassemble. Your molecule can be put together and taken apart as many times as you wish.

### **Warranty and Parts:**

We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.