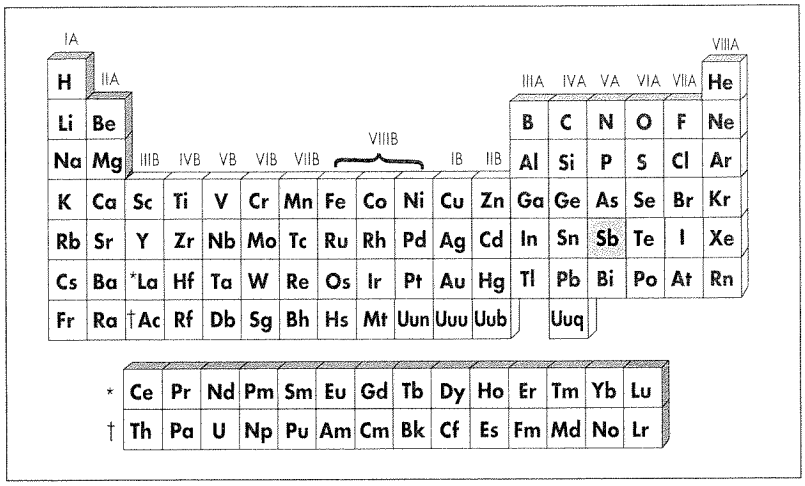


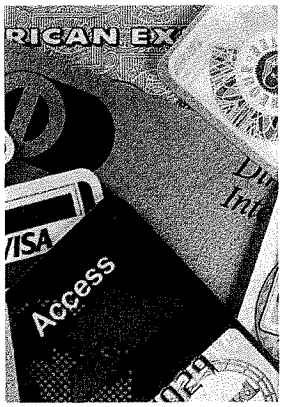
ANTIMONY

Sb

In its pure form, the metal antimony is a hard, brittle, grayish crystalline solid at room temperature. Although known as a metal, it is a poor conductor of electricity. The ore that serves as the primary source of antimony is the mineral stibnite (antimony sulfide), which has been known for thousands of years. A black compound, stibnite was used in ancient times to darken women's eyebrows. The alchemists often experimented with stibnite, mistaking for lead the metal that it produced upon heating.

The chemical symbol for antimony, Sb, was taken from its original name, stibium, apparently named after the mineral stibnite. The word *antimony* is thought to be of Greek origin.

A major use of antimony is for the common safety match. An item that is now taken for granted, the safety match was invented by the Swedish chemist Jerry Eugene Lundstrom in 1855. The head of this match consists of a mixture of antimony trisulfide and an oxidizing agent such as potassium chlorate. The tip of the match, above the head, contains red phosphorus that, when struck against a rough surface, ignites and generates enough heat to set fire to the head of the match, which bursts into flame.



Antimony oxide, a flame retardant, is often added to the plastic used to make credit cards.

Antimony has few other commercial uses. As an alloy, it can increase the hardness of many metals. Antimony oxide, a white salt, is often added to polyvinyl chloride, or PVC, in which it acts as a flame retardant. PVC is a plastic polymer that is used to make wastewater pipes, credit cards, and electrical insulation.

Atomic Number **51**

Chemical Symbol **Sb**

Group **VA—Metalloid**