*** Name Origin:**

Latin: arsenicum, Greek: arsenikon, yellow orpiment, identified with arsenikos, male, from the belief that metals were different sexes. Arabic: Az-zernikh, the orpiment from Persian zerni-zar, gold

*** Sources:**

Found in mispickel (arsenopyrite).

*** Uses:**

Used as a deadly poison, in shotgun pellets, metal for mirrors, glass, lasers, light-emitting diodes (LED) and in semiconductors. Many of its compounds are deadly poison and used as weed killer and rat poison. Some compounds, called arsenides, are used in the manufacture of paints, wallpapers and ceramics.

*** Additional Notes:**

Elemental arsenic occurs in two solid modifications: yellow, and gray or metallic, with specific gravities of 1.97, and 5.73, respectively. Gray arsenic, the ordinary stable form, has a m.p. of 817°C (28 atm) and sublimes at 614°C. Several other allotropic forms of arsenic are reported in the literature. In 1649 Schroeder published two methods of preparing the element. It is found native, in the sulfides realgar and orpiment, as arsenides and sulfarsenides of heavy metals, as the oxide, and as arsenates. Mispickel, arsenopyrite, (FeSAs) is the most common mineral, from which on heating the arsenic sublimes leaving ferrous sulfide. The element is a steel gray, very brittle, crystalline, semimetallic solid; it tarnishes in air, and when heated is rapidly oxidized to arsenous oxide (As2O3) with the odor of garlic. Arsenic and its compounds are poisonous. These values, however, are being studied, and may be lowered. Arsenic is also used in bronzing, pyrotechny, and for hardening and improving the sphericity of shot. The most important compounds are white arsenic (As_2O_3), the sulfide, Paris green $3Cu(AsO_2)_2 \cdot Cu(C_2H_3O_2)_2$, calcium arsenate, and lead arsenate; the last three have been used as agricultural insecticides and poisons. Marsh's test makes use of the formation and ready decomposition of arsine (AsH_3). Arsenic is available in high-purity form. It is finding increasing uses as a doping agent in solid-state devices such as transistors. Gallium arsenide is used as a laser material to convert electricity directly into coherent light. Natural arsenic is made of one isotope ^{75}As. Twenty-five other radioactive isotopes and isomers are known. Arsenic is a carcinogen, associated with lung cancer when inhaled. Contact with skin can result in skin cancer. Also damage to intestines and liver. Toxic when ingested. Found in pesticides and wood preservatives. It is naturally occurring in many household products. Resists water, acids and alkalis. Tarnishes in air, burns in oxygen.