*** Name Origin:**

Greek: barys (heavy or dense).

*** Sources:**

Found in barytine ($BaSO_4$) and witherite ($BaCO_3$),never found in pure form due to its reactivity.

*** Uses:**

Used in sparkplugs, vacuum tubes, fireworks, fluorescent lamps.

*** Additional Notes:**

Baryta was distinguished from lime by Scheele in 1774. It is found only in combination with other elements, chiefly in barite or heavy spar (sulfate) and witherite (carbonate) and is prepared by electrolysis of the chloride. Barium is a metallic element, soft, and when pure is silvery white like lead; it belongs to the alkaline earth group, resembling calcium chemically. The metal oxidizes very easily and should be kept under petroleum or other suitable oxygen-free liquids to exclude air. It is decomposed by water or alcohol. The metal is used as a “getter” in vacuum tubes. The most important compounds are the peroxide (BaO_2), chloride, sulfate, carbonate, nitrate, and chlorate. Lithopone, a pigment containing barium sulfate and zinc sulfide, has good covering power, and does not darken in the presence of sulfides. The sulfate, as permanent white or blanc fixe, is also used in paint, in X-ray diagnostic work, and in glassmaking. Barite is extensively used as a weighting agent in oilwell drilling fluids, and also in making rubber. The carbonate has been used as a rat poison, while the nitrate and chlorate give colors in pyrotechny. The impure sulfide phosphoresces after exposure to the light. The compounds and the metal are not expensive. Barium metal (99.7 + % pure) costs about 40¢/gm. All barium compounds that are water or acid soluble are poisonous. Naturally occurring barium is a mixture of seven stable isotopes. Thirty nine other radioactive isotopes and isomers are known to exist. Must be stored under kerosene to remain pure.