

**\* Name Origin:**

From France.

**\* Sources:**

Formed by decay of actinium. Chemical properties similar to cesium. Decays to radium or astatine.

**\* Uses:**

None

**\* Additional Notes:**

Discovered in 1939 by Mlle. Marguerite Perey of the Curie Institute, Paris. Francium, the heaviest known member of the alkali metal series, occurs as a result of an alpha disintegration of actinium. It can also be made artificially by bombarding thorium with protons. While it occurs naturally in uranium minerals, there is probably less than an ounce of francium at any time in the total crust of the earth. It has the highest equivalent weight of any element, and is the most unstable of the first 101 elements of the periodic system. Thirty-five isotopes and isomers of francium are recognized. The longest lived  $^{223}\text{Fr}(\text{Ac}, \text{K})$ , a daughter of  $^{227}\text{Ac}$ , has a half-life of 21.8 min. This is the only isotope of francium occurring in nature. Because all known isotopes of francium are highly unstable, knowledge of the chemical properties of this element comes from radiochemical techniques. No weighable quantity of the element has been prepared or isolated. The chemical properties of francium most closely resemble cesium.