

## 10620 Natural Cinnabar

Chemical composition: HgS mineral mercuric sulfide

Mineral cinnabar is the principal ore of the metal mercury. The crushed ground ore served directly as a pigment for centuries. The historic sources for cinnabar were the famous Almaden mines in Spain which are still the world's most important source of mercury. Cinnabar is fairly widely distributed in nature and sources are known in England, Spain, Italy, China, Japan, California, Mexico and Peru.

Cinnabar is the common red crystalline form of mercuric sulfide. Vermilion is the standard name in England and the United States given to the red artists' pigment based on artificially made mercuric sulfide. Artificial cinnabar was manufactured very early on. Geber (Jabir), the eighth- to ninth-century Arabic alchemist mentions a red compound formed by the union of sulfur and mercury.

The pigment has been known in China since prehistoric times and it has long been held in high esteem there. The artificial dry-process vermilion does not differ from the natural mineral. Impurities in vermilion are no satisfactory criterion of origin, however, since very pure, natural cinnabar frequently occurs in nature. Artificial vermilion, produced by the wet-process, contains very finely divided and homogeneous particles. Cinnabar is coarsely crystalline and has a bluish, carmine red color. When it is finely ground, the color approaches a reddish orange.

For a detailed description on the different manufacturing processes see chapter on vermilion and cinnabar in *Artists' Pigments Vol. 2* by Rutherford J. Gettens, Robert L. Feller and W.T. Chase.

Cinnabar and vermilion are permanent pigments. Although it is a sulfide, it is not reactive with other pigments. In oil-medium, it was commonly used with lead white to produce flesh tints.

Our cinnabar from Monte Amiata was obtained from the long closed mine in Tuscany, Italy. This cinnabar corresponds in color to the historical dry manufactured European vermilion (sold out).

Our cinnabar from China is of exceptionally pure quality and is mined in the Hunan district.

Excerpts from:

*Artist's Pigments Vol.2* Ashok Roy (editor) and

*Painting Materials* Rutherford J. Gettens and George L. Stout