Minerals

Cinnabar

HgS

Crystallography:

Hexagonal-R; $\bar{3}2$ (low temperature form). Crystals usually rhombohedral, often in penetration twins. Commonly fine granular, massive; also earthy.

Physical Properties:

Cleavage: {1010} perfect. Fracture subconchoidal, uneven; rather sectile.
Hardness: 2.5
Specific Gravity: 8.1
Luster: Adamantine when pure; dull to earthy when impure.
Color: Vermillion-red when pure; brownish-red when impure.
Transparent to opaque.
Streak: Scarlet.

Composition/Features:

A mercury sulfide, HG (86.2%), S (13.8%) with small variations. Unlike any other sulfide, the structure of cinnabar is based on infinite spiral Hg-S-Hg chains that extend along the c-axis. Characterized by its red color, scarlet streak, specific gravity & cleavage.

Occurrence/Use:

Most important ore of mercury, occurring as impregnations and vein fillings near volcanic rocks and hot springs; likely deposited near surface from what were probably alkaline solutions. The only important source of mercury used in electrical apparatus, industrial control equipment, scientific instruments, and chemical processes.