

SEPIOLITE

Sepiolite is absorbing clay mineral composed of hydrated magnesium silicate. In stone conservation is used to remove ingrained dirt from stone. Poultice made by mixing Sepiolite with Ammonium Carbonate and de-ionized water is applied to the surface by hand to thickness 20 mm. After 24 hours, slight cracks will appear in partially dry poultice, that should then be removed a little at a time. Wash immediately freshly exposed surface with distilled water, sponge and brush

Chemical Formula	Mg ₄ Si ₆ O ₁₅ (OH) ₂ ·6(H ₂ O)
Molecular Weight	613.82 gm
Composition	Magnesium 15.84 % Mg, 26.26 % MgO Silicon 27.45 % Si, 58.73 % SiO ₂ Hydrogen 1.97 % H, 17.61 % H ₂ O Oxygen 54.74 % O
Empirical Formula	Mg ₄ Si ₆ O ₁₅ ·6(H ₂ O)
Environment	Precipitate from alkali saline water in arid area.
Locality	Eski Shehr, Asia Minor. Link to MinDat.org
Synonyms	Meerschaum, Sea Foam
Axial Ratios	a:b:c =0.4996:1:0.1964
Cell Dimensions	a=13.43, b=26.88, c=5.281, Z=4; V=1,906.43 Den(Calc)=2.14
Crystal System	Orthorhombic-Dipyramidal H-M
X Ray Diffraction	By Intensity(I/I ₀): 12.3(1) 2.58(0.6) 4.4(0.35)
Cleavage	Perfect
Color	white grayish, yellowish, bluish green, reddish and gray.
Density	2
Diaphaniety	Opaque
Habits	Earthy - Dull, clay-like with no visible crystals (e.g. howlite)., Fibrous - Crystals made up of fibers.
Hardness	2 - Gypsum
Luminescence	None.
Luster	Earthy (Dull)
Streak	white
Optical Data	Biaxial (-), a=1.52, b=1.5202, g=1.53, bire=0.0100, 2V(Calc)=18, 2V(Meas)=20-70. Dispersion none.