



## Phosphotungstic acid hydrate

The phosphotungstate family includes phosphotungstic acid hydrate. These complicated molecules have an oxygen atom and phosphate groups surrounding a central tungsten core. Its hydrate, which easily dissolves in methanol and water, demonstrates its preference for polar solvents. At room temperature, it is stable; at 100°C, it breaks down.

Phosphotungstic acid hydrate is interesting in that it functions as a strong acid. By giving water molecules, a proton (H<sup>+</sup>), it produces an extremely acidic environment (pH ≤ 2). The stability and structure of its hydroxyl groups are largely dependent on hydrogen bonds.

This unique combination of properties makes phosphotungstic acid hydrate a material of scientific interest.

Cat. Number	ASC-1027
CAS Number	12501-23-4
Additional CAS	12067-99-1
MDL Number	MFCD00011342
PubChem	310278953
Molecular Weight	2880.20 g/mol
Molecular Formula	H <sub>3</sub> PO <sub>4</sub> · 12WO <sub>3</sub> · xH <sub>2</sub> O
Storage Temperature	+20°C
Form and Color	Crystalline Powder or Crystals, White to Light Yellow
Assay	≥ 98.0%