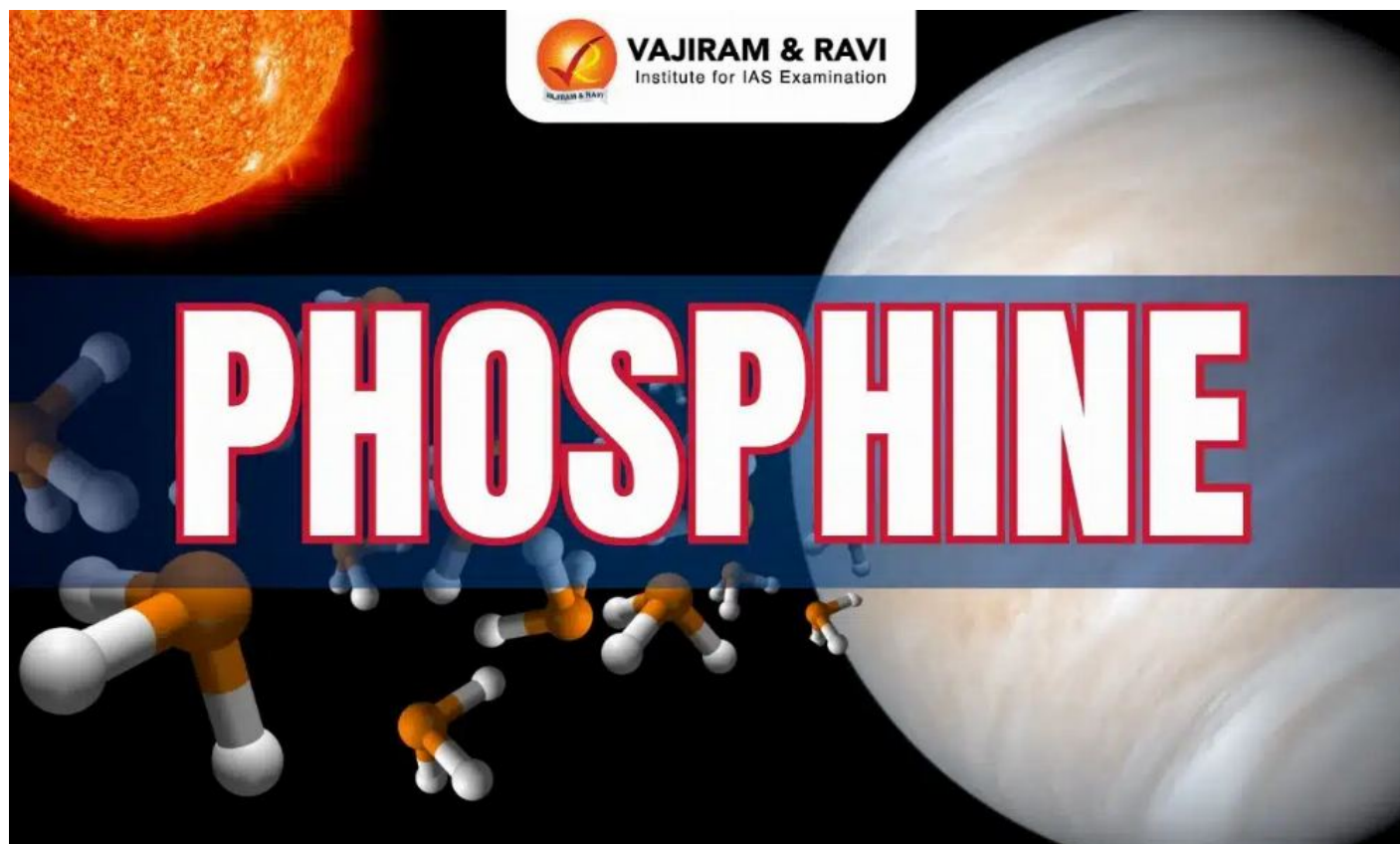


Phosphine

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Phosphine Latest News

Recently, astronomers using the James Webb Space Telescope have detected phosphine (PH₃) in the atmosphere of brown dwarf Wolf 1130C.

About Phosphine

- It is a chemical compound made of **one phosphorus** atom and **three hydrogen atoms**.
- **Formation:** Phosphine on Earth is **developed naturally by bacteria** that live in very low-oxygen environments.
- To produce phosphine, Earth bacteria take up phosphate from minerals or biological material and add hydrogen.
- It is also found in the atmospheres of Jupiter and Saturn.
- It is also **called hydrogen phosphide**.
- **Uses of Phosphine:** It is used in **semiconductor and plastics industries**, in the production of a **flame retardant**, and as a pesticide in stored grain.

Properties of Phosphine

- It is a **colourless, flammable, extremely toxic gas** with a disagreeable garlic like odour.
- It is slightly **soluble in water**.
- It is formed by the action of a strong base or hot water on white phosphorus or by the reaction of water with **calcium phosphide** (Ca_3P_2).
- It is **structurally similar to ammonia** (NH_3), but phosphine is a much poorer solvent than ammonia and is much less soluble in water.

Source: SN

Source: <https://vajiramandravi.com/current-affairs/what-is-phosphine/>

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