

Phosphorus pentoxide (P₂O₅) HP

Phosphorus Specialties & Intermediates

Description

Phosphorus pentoxide HP is a white crystalline powder, extremely hygroscopic. It is formed by burning elemental phosphorus in the abundant presence of oxygen. Most practical applications and uses of phosphorus pentoxide HP are based around its extreme affinity to water, which makes it an excellent dehydrating agent. The dissolution in water is exothermic and demands due care.

Chemical Composition

Phosphoric anhydride, P₂O₅

CAS Registry Number

1314-56-3

Appearance

P₂O₅ HP is a white, free flowing powder.

Typical Properties*

Property	Nominal Value	Unit
Density	0.9 - 1.1	g/cm ³
Sublimation point starts at	360	°C
Molar mass	283.9	g/mol
P ₂ O ₅ content	min. 99.5	% m/m
P ₂ O ₃ content	max. 0.1	% m/m
Arsenic content	max. 100	ppm
Iron content	max. 5.0	ppm
Heavy metals content (as Pb)	max. 20	ppm

*The analytical data are guide values.



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Application

P₂O₅ HP is used in the production of organic phosphate and polyphosphoric acid. Another application areas are pharmaceuticals and vitamins, catalysts and drying agents

Packaging

25 kg drum, 50 kg drum, 50 kg drum inliner, 200 kg drum.
450 big bag, 850 big bag, 1000 kg IBC.

Storage conditions

P₂O₅ HP is a very corrosive material. Please refer to the safety data sheet before any use. The material needs to be stored in closed containers away from moisture. The shelf life, if properly stored, is 2 years.

Handling

Consult the safety data sheet for relevant safety data & references as well as possibly necessary warning labels.

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