

Read the article and fill the gaps with appropriate words.

POTASSIUM – CHEMICAL PROPERTIES

Adapted from <http://en.wikipedia.org/wiki/Potassium>

prevent	solubility	ignites	carbonate
prior	lithium	traces	acid
alkali	hydration	nonvolatile	
desiccant	exothermic	liquid	
reacts	precipitation	colorless	

Potassium must be protected from air for storage to 1. disintegration of the metal from oxide and hydroxide corrosion. Often samples are maintained under a hydrocarbon medium which does not react with 2. metals, such as mineral oil or kerosene.

Like the other alkali metals, potassium 3. violently with water, producing hydrogen. The reaction is notably more violent than that of 4. or sodium with water, and is sufficiently 5. that the evolved hydrogen gas 6.

Because potassium reacts quickly with even 7. of water, and its reaction products are 8. , it is sometimes used alone, or as NaK (an alloy with sodium which is 9. at room temperature) to dry solvents 10. to distillation. In this role, it serves as a potent 11.

Potassium hydroxide reacts strongly with carbon dioxide to produce potassium 12. , and is used to remove traces of CO₂ from air. Potassium compounds generally have excellent water 13. , due to the high 14. energy of the K⁺ ion. The potassium ion is 15. in water.

Methods of separating potassium by 16. , sometimes used for gravimetric analysis, include the use of sodium tetraphenylborate, hexachloroplatinic 17., and sodium cobaltinitrite.