Answer on Question #42795, Chemistry, Other

Question:

6pbo(s)+o2(g) 2pb3o4(s)

Answer:

Lead(II,IV) oxide (Pb₃O₄**)**, also called **minium**, **red lead** or **triplumbic tetroxide**, is a bright red or orange crystalline or amorphous pigment. Chemically, red lead is Pb₃O₄, or 2 PbO·PbO₂. Lead(II,IV) oxide is used in the manufacture of batteries, lead glass and rust-proof primer paints.

Lead(II,IV) oxide is prepared by calcination of lead(II) oxide (also called litharge) in air at about 450 to 480 °C:

 $6PbO(s) + O_2(g) \rightarrow 2Pb_3O_4(s)$

The resulting material is contaminated with lead(II) oxide (PbO). If a pure compound is desired, PbO can be removed by a potassium hydroxide solution:

PbO + KOH + $H_2O \rightarrow K[Pb(OH)_3]$ (aq)