Schlax, Silas
Chemistry 1:00 pm
Stacy Lung, Instructor
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History of Gunpowder

Nowadays everyone has some idea of gunpowder, but what exactly is it? Is it just a destructive substance used to make bullets, fireworks, and other explosions? Or is there more to it? Gunpowder is made up of potassium nitrate, charcoal, and sulfur, with the following ratios in percent; 75%:15%:10%. Or this Equation $10KNO_3 + 8C + 3S \rightarrow 2K_2C0_3 + 3K_2SO_4 + 6CO_2 + 5N_2$. One may be wondering why does gunpowder explode? The reason is a chemical reaction between the nitrate, charcoal, and sulfer, which produce carbon dioxide gas, heat energy, and potassium sulfide, which in return expands rapidly resulting in an explosive force. Today this chemical reaction is used in tight spaces such as a gun barrel to move the projectile forward out of the barrel at such a high velocity that the projectile continues to travel until it hits its target, or the ground where it is slowed down and stopped. Gunpowder is also used for the spectacular fireworks one can buy or see at events like 4th of July!

Other military uses include, explosives like grenades, land mines, bombs, and more. Gunpowder is not a new invention at all, it dates back to the Chinese Song dynasty. Gunpowder was accidentally discovered by some alchemist trying to make “potions” that would allow their emperor to live forever. But instead they made the sometimes deadly explosive compound known as gunpowder. It was quickly used to make weapons such as explosive shells, explosive arrows, fireworks, and eventually guns, and grenades. It quickly spread all around China, and over to Mogol, India, and eventually Europe. The fact that the Chinese found this out is just amazing, the Chinese had a lot of knowledge on different minerals for their time. And the fact that they combined the right ones to make gunpowder is crazy. Even though gunpowder can be

used for spectacular displays, it can also be used for great destruction. Like in WWI and WWII tear gas was a prominent bio-weapon used, and was distributed by an explosion in the shell it was dropped from to spread the gas in the enemy trenches.

Sources:

National Park Service

Compound Interest

The Chemistry Book