

## FOURTH OF JULY & MINERALS

The Fourth of July holiday is a time people gather with friends and family to celebrate at parades, BBQs, baseball games, lakes and with outdoor activities. Although not an official national holiday until 1870, patriotic activities, including firework displays, have been used to celebrate the anniversary of the Declaration of Independence since 1777. Today it wouldn't be July 4th without fireworks to commemorate the holiday. Last year, more than 213 million pounds of fireworks were purchased in the U.S. alone. Did you know that the beautiful colors that light up the sky from these fireworks are a result of minerals?



The components of fireworks, when heated to specific temperatures, give off a color when released. Each basic color in a firework is produced by a specific mineral or mineral compound. Below is a list of some of the common minerals used in fireworks:

- Blue comes from copper
- Lavender is made with a copper and strontium compound
- Red is a product of strontium
- Yellow comes from sodium
- Green is made with barium

The minerals enhancing firework displays is another example of the variety of applications and products that require minerals, including strategic metals like copper.

#### Sources:

*Minerals Make Life*, <http://mineralsmakelife.org/blog/details/metals-in-fireworks-light-up-the-sky>  
*Statistic Brain*, <http://www.statisticbrain.com/firework-statistics/>  
*History.com*, <http://www.history.com/topics/holidays/july-4th>  
*Rocksandminerals.com*, <http://www.rocksandminerals.com/fireworks.htm>