

Helium is element number 2. Helium is the second most common element in the universe, representing about 10% of the total matter. (The other 90% is hydrogen, all other elements represent an insignificantly small fraction of the total.) While helium is very common in the universe, most of it is in the stars: on earth it is actually quite rare. It is created deep in the earth from the radioactive decay of uranium and thorium (which also gives the earth its internal heat), and is "mined" from natural gas and oil wells (it comes up with the natural gas and is separated and stored). Helium is a noble gas, which means it doesn't react with anything for all practical intents and purposes. It's used as an inert shield gas to protect things from oxidation. (For example, "heli-arc" welding, which uses a stream of inert gas to prevent oxidation of metal as it is being welded, is named after helium even though most heli-arc welding is done with argon because it's cheaper.) The world's supply of helium is running out. It is used in complex medical research and scientific experiments, but it is also used for party balloons. Because so many people use it for lighter than air balloons, it is becoming more and more scarce. If we run out, we cannot make more.