

What Are Some Real-Life Uses of Mixtures?

Some elements can't be put to good use in their pure form. Pure gold is too soft for jewelry. Pure aluminum is too light and weak for pots and pans. Pure iron is too brittle and rusts too easily for use in cars. How then do people make gold jewelry, aluminum pans, and cars made of iron?

The answer is in *alloys* (AL-oyz). An alloy is a mixture of two or more elements, at least one of which is a

metal. A mixture of gold and a little copper is stronger than pure gold. A mixture of aluminum and carbon is stronger than pure aluminum. A mixture of iron, chromium, nickel, and carbon is called steel.

Making alloys is a little like cooking. Different recipes give alloys different properties. For example, low-carbon steel is strong but flexible. High-carbon steel is strong but brittle. Medium-carbon steel is somewhat strong and somewhat flexible.

► **What common items do you use that are made of alloys?**



Many common items are made of alloys.