

**Sue Morse, Phoenix, AZ**  
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**Bracker's Good Earth Clays, Inc.**  
**Aluminum Foil Sagger Firing**

This is a simple technique that utilizes ferric chloride ( $\text{FeCl}_3$ ) to create rusts, pinks, browns, creams, and burgundies. Additional materials may be added to influence the colors and surface textures such as salt, fertilizer, seaweed, horse hair, copper and steel wires, organic materials, etc.

Pots should be prepared with clay that can withstand temperature shock. I use stoneware. The pieces can either be well burnished and/or coated with terra sigillata, or left rough. The lower the bisque temperature, the better the burnished shine remains. I bisque to cone 010, which is roughly 1650°F (900°C). Smooth surfaces are enhanced with a final application of wax.

Ferric chloride is a corrosive chemical and should be handled with respect. It is also called Iron Chloride. It is soluble in water and alcohol and is non-combustable. It can be obtained either as a solid (not recommended as it can give off highly toxic hydrogen chloride fumes when mixed with water) or in liquid form.

Precautions necessary when applying it to your surfaces are to use goggles and gloves, keep the solution in a plastic or glass container, and wash off any liquid on the skin with water. It also stains clothing. However, during the firing process (fuming) toxic gases are present and a respirator is highly recommended for removing the pots from the kiln and for removing the aluminum foil.

The mixture used in this workshop is 143 grams of water by weight to 100 grams of solid ferric chloride. In the United States, lump reagent grade ferric chloride can be purchased from The Lab Depot, Inc. ([www.labdepotinc.com](http://www.labdepotinc.com)), but it must ship to a business address.

Ferric Chloride is known as a flocculant or coagulant. These are chemicals that help make tiny particles clump together. It is most commonly used in drinking water purification, sewage treatment, and as an etchant for copper-based metals in printed circuit boards, but it is also a food additive among other things. A benefit in using ferric chloride is its ability to be recycled.

As with all raku firings, natural fabrics should be worn along with long pants, long sleeves and sturdy shoes.