The Kastle–Meyer test is a widely used presumptive test for detecting the presence of hemoglobin in blood stains, playing an important role in forensic investigations and crime scene analysis. The proper procedure involves first applying a few drops of ethanol to the suspected stain, followed by the reduced phenolphthalin solution, and finally a drop of hydrogen peroxide. When this colorless solution comes into contact with blood and hydrogen peroxide, the hemoglobin acts as a catalyst, causing the hydrogen peroxide to oxidize the reduced phenolphthalin back to phenolphthalein. The test capitalizes on the peroxidase–like activity of hemoglobin using phenolphthalin (reduced form of phenolphthalein) as an indicator. For instance, certain plant materials containing peroxidases, some metals, and chemical oxidants can potentially trigger a similar color change.