Potassium hexacyanoferrate(III)  
ACS Reagent

Product Number 24,402-3  
Store at Room Temperature

Exact replacement for Product Number P 3667

Product Description
Molecular Formula: $K_3Fe(CN)_6$
Molecular Weight: 329.2
CAS Number: 13746-66-2
Extinction Coefficient: $E_{\text{M}}^\text{M} = 1.04^3$ (420 nm, pH 8.0)$^1$
Synonyms: potassium ferricyanide, Red prussiate of potash$^2$

Potassium ferricyanide is an inorganic coordination compound that is used in such applications as photography, blueprints, the staining of wood, the dyeing of wool, the tempering of iron and steel, and electroplating.$^2$ In organic chemistry, potassium ferricyanide may be utilized in the $\alpha$-cyanation of nitro compounds, the addition of dihydroxy groups across double bonds, and the oxidation of N,N'-diarylhydrazines to azo compounds.$^3$ Potassium ferricyanide has been used to prepare peptide disulfides from a starting nonapeptide dithiol.$^4$

The stimulation of mitogenesis in PC12 cells by potassium ferricyanide has been investigated.$^5$ Potassium ferricyanide has been used as an electron acceptor in redox studies of enzymes such as methionine synthase reductase and $Xenopus$ laevis (6-4) photolyase.$^6,7$ Glycolate oxidation in plant and algal chloroplasts has been studied with potassium ferricyanide as an electron acceptor.$^8$ Potassium ferricyanide has been used as a paramagnetic shift reagent to probe the lysine microenvironments in the lipid-free and lipid-associated states of apolipoprotein E.$^9$

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in water (100 mg/ml), with heat as needed, yielding a clear to slightly hazy, yellow green solution.

Storage/Stability
Aqueous solutions protected from light will slowly decompose on standing.$^2$

References
2. The Merck Index, 12th ed., Entry# 7792.