Dear Editor,

David W. Drummond's article on "How *not* to be a large quantity generator ….." asserts that the ferrocyanide and ferricyanide complexes are not true cyanides under RCRA and he cites references from 1983 and 1956. Before this subject is closed, I suggest people read more recent determinations from EPA, specifically:

1. Final Administrative Determination (FAD) on ferric ferrocyanide, G. Tracy Mehan, III, Assistant Administrator for Water, U.S. EPA September 24, 2003 (Announced in the Federal Register, October 6, 2003).
2. "Preliminary Administrative Determination (PAD) that ferric ferrocyanide is a" cyanide "under 40 CFR 401.15, 302.4 & Table 302.4," J. Charles Fox, U.S. EPA, January 25, 2001.

EPA concludes that:

> *… FFC [ferric ferrocyanide] is one of the "cyanides" within the meaning of 40 C.F.R.§ 401.15. CERCLA section 101(14)(D) defines CERCLA hazardous substances to include an y toxic pollutant listed in section 307(a) of the CWA, which is codified at 40 C.F.R. §401.15. Therefore, FCC is also one of the "cyanides" within the meaning of 40 C.F.R. § 304.4 and Table 302.4.*

The 2001 and 2003 EPA documents assert that ferric ferrocyanide has been included among the "cyanides" since 1973 when EPA:

(1) defined cyanides as compounds containing the –CN ion;
(2) specified a total cyanide test procedure that would measure cyanide release from both simple cyanides and from all of the hexacyanoferrates including ferric ferrocyanide.

The fact that the test procedure will detect cyanide release from all of the hexacyanoferrates means all the hexacyanoferrates are considered "cyanides" under this definition.

So I wouldn't be too sure that hexacyanoferrates are not also considered cyanides under RCRA. And I sure wouldn't flush the stuff down the drains.

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The author responds

Regulations and interpretations written for different situations usually differ. My article deals with measuring quantities to manage RCRA generator status. Monona Rossol cites rules and interpretations related to environmental releases regulated under the Clean Water Act and CERCLA.[1] We are discussing different subjects.

Generic cyanides (P030) appear on the RCRA list of acute hazardous wastes only because of their toxicity.[2] The oral LD50 of both ferric and sodium ferrocyanide is more than two orders of magnitude greater than the listing criteria of 50 mg/kg, therefore they are not acute hazardous waste. The lack of oral toxicity is adequate proof that they are nonreactive under the RCRA definition[3] and, therefore, not regulated under RCRA. As I noted, ferrocyanides may release cyanide under conditions different from the RCRA specification.

An interesting aside is that in 2003 the Food and Drug Administration approved ferric ferrocyanide under the name Radiogardase as a treatment for radioactive cesium and thallium poisoning. The label recommends an oral adult dose of three grams, taken three times per day.[4]

As to the closing comment about flushing "the stuff" down the drain, I refer everyone to several statements in the paper, e.g. the conclusions, which include "… managing a chemical as hazardous waste may be the proper course of action regardless of its regulatory status." Or stated more generally, "Never let limited regulations prevent you from doing what's right."

Protecting the environment and minimizing regulatory burdens both deserve our effective and efficient effort.

REFERENCES

1. Comprehensive Environmental Response, Compensation and Liability Act.
2. Comment preceding table at 40 CFR 261.33(e).
3. 40 CFR 261.23(a)(5).
4. The label is available at http://www.fda.gov/cder/foi/label/2003/021626lbl.pdf.

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