

This new seven-volume series gives a plethora of information on the environmental fate and monitoring data that are necessary for both qualitative and quantitative exposure assessment. Chemicals are listed alphabetically in the book and are indexed by chemical name, synonym, chemical abstract number, Wiswesser notation and chemical formula.

Data given for each chemical include:

1. Substance identification by: CAS registry number, molecular formula, and Wiswesser line notation.
2. Chemical and physical properties, such as boiling point, melting point, molecular weight, dissociation constant, log (octanol/water) partition coefficient, water solubility, vapor pressure and Henry's Law constant.
3. Environmental exposure potential: following a summary, compound-specific data are given on natural and artificial sources; terrestrial, aquatic and atmospheric fate; biodegradation and abiotic degradation; bioconcentration; soil absorption/mobility; volatilization from water/soil; water, effluent, sediment/soil and atmospheric concentrations; food survey values; plant, fish/seafood, animal and milk concentrations; other environmental concentrations; probable routes of human exposure; average daily intake; acceptance exposure; and body burdens.
4. References.

The first volume contains data on 74 chemicals. Further volumes are to follow on solvents, pesticides and carcinogens.

The amount of data accumulated by the author and his associate editors (W.F. Jarvis, G.W. Sage, D.K. Dasu, D.A. Gray, W. Meylan and E.K. Grosbie) is staggering, but organized and categorized as it is, the seven volumes of this series of books will be, in my opinion, a well used, often-cited reference series for many years to come. This Handbook series will be, I believe, the premier work of its kind in its field, as risk analysis takes on increasing importance in the chemical field.

GARY F. BENNETT

Handbook of Environmental Fate and Exposure Data for Organic Chemicals: Vol. 2. Solvents, by P.H. Howard, Lewis Publishers, Chelsea, MI, 1990, ISBN 0-87371-204-8, 546 pp., \$72.00.

When I reviewed the first book in the series, I said the series would become one of the most used and referred set of books in most libraries. The second volume has confirmed that positive statement.

As in the first volume, a plethora of physical chemical data and data on the environmental fate and monitoring data are given. As noted above (in more

detail) in the review of Volume 1, numerous data are given under the major heading of:

- Substance identification
- Chemicals and physical properties
- Environmental fate and exposure potential

Data are included on approximately 80 chemicals, they are listed in strict alphabetical order by the name considered to be the most easily recognized, starting with acetic acid and ending with xylene.

GARY F. BENNETT

In Situ Immobilization of Heavy-Metal-Contaminated Soils, by R.P. Czupyrna, R.D. Levy, A.I. MacLean and H. Gold, Noyes Data Corp., Park Ridge, NJ, 1989, ISBN 0-8155-1219-8, 155 pp., \$39.00.

This book is not really a book in the conventional sense. In fact it is a consultant's report based on a project whose "overall aim... was to evaluate the effect of cost-effective innovative *in situ* immobilization technologies on the leaching behavior of five heavy metals common to many contaminated soils and groundwater, namely chromium (hexavalent), cadmium, nickel, copper and zinc."

And with good effect:

"The results of this study indicated that *in situ* treatment is a viable solution for the immobilization of heavy metals, Cr, Cd, Ni, Cu and Zn from contaminated soil. The use of a Valfor 200-ferrous sulfate combination treatment for the immobilization of hexavalent chromium, cadmium and nickel proved very effective in the hazardous waste site simulation."

In addition to the above additives, 24 other chemical additives were evaluated for their ability to react with and immobilize the cited heavy metals.

GARY F. BENNETT

Hazardous Waste Reduction in the Metal Finishing Industry, by PRC Environmental Management, Published by Noyes Data Corp., Park Ridge, NJ, 1990, ISBN 0-8155-1233-6, 205 pp., \$42.00.

The topic of great interest on the US hazardous waste scene presently is "waste minimization." Indeed Congress appears on the verge of passing a law legislating industrial hazardous waste reduction goals. Hence the appearance of the book is very timely.

Hazardous Waste Reduction in the Metal Finishing Industry presents the