



Book review

Sittig's Handbook of Toxic and Hazardous Chemicals and Carcinogens, 4th Edition
Richard P. Pohanish (Ed.); William Andrew Publishing, Norwich, NY, 2001, 2300 pages,
8½ × 11 in. format, ISBN 0-8155-1459-X, US\$ 395.00

Over the years, I have reviewed and still have on my bookshelf numerous books containing chemical information written by Sittig who was the former Director of Government Relations for Princeton University. Sittig, who authored the first three editions of this monumental work, was succeeded by Richard P. Pohanish as editor.

With more than 60,000 different chemicals currently in use daily in the United States, each with its own unique hazards and regulatory controls, a book like this is an invaluable resource for anyone who generates, stores, ships, uses, or comes in contact (i.e., spill response) with chemicals. The book contains information on the most commonly encountered chemicals.

Published 20 years ago, the first edition of this book contained data on 600 chemicals. Each succeeding edition contained data on more chemicals than its predecessor. This, the fourth edition, contains chemical, health and safety information on almost 1500 toxic and hazardous chemicals “so that responsible decisions can be made by all who may have contact or interest in these chemicals.”

Data are found on the following topics:

- Chemical Description
- Code Numbers
- Synonyms
- Potential Exposure
- Incompatibilities
- Permissible Exposure Limits in Air
- Determination in Air
- Permissible Concentration in Water
- Determination in Water
- Routes of Entry
- Short Term Exposure
- Long Term Exposure
- Points of Attack
- Medical Surveillance
- First Aid
- Personal Protective Methods
- Respirator Selection

Storage
Spill Handling
Fire Extinguishing
Disposal Method Suggested
References

The book's editor notes that new and additional information has been included in the fourth edition in most of the sections listed above. He also says that "Specifically, additions include more regulatory information, identifiers, chemical and physical properties including flash points, explosive limits, water solubility, odor thresholds, hazard ratings, DOT (Department of Transportation) isolation and protective distances, and full text of NIOSH (National Institute of Safety and Health) respirator recommendations."

Features I found interesting (in addition to the tremendous amount of information supplied) include the following:

1. Chemical names and synonyms often reported in languages other than English.
2. Identification numbers: CAS (Chemical Abstract Services), RTECS (Registry of Toxic Effects of Chemical Substances), DOT US (Department of Transportation), EEC (European Economic Community), and EINECS (European Inventory of Existing Commercial Substances).
3. Regulatory authority: The book contains a listing of major regulatory and advisory lists containing the chemical of concern. Among the regulatory groups and laws cited are NIOSH, FIFRA, OSHA, CAA, RCRA, SWA, CERCLA, EPCRA, and state regulations; all of the foregoing are US laws or citation sources. Also cited is Canada's Advisory List, WHMIS.

There are eight appendices with the following titles:

1. Oxidizing Materials by Name-CAS
2. Carcinogens, Confirmed and Suspected
3. Glossary
4. RTECS Number Cross Index
5. DOT ID Cross Index
6. Synonym and Trade Name Cross Index
7. Molecular Formula Cross Index
8. CAS Number Cross Index

The editor is to be commended for continuing and markedly expanding upon the work of Sittig. He has produced, in my opinion, the most comprehensive chemical information book I have seen. I agree with the comment on the back cover "The new edition continues to keep pace with the explosion of hazardous chemical data and fulfills the needs of health, safety, and environmental personnel in every industry where chemicals are used, federal, state, and local government regulators, public safety personnel including emergency responders and transporters of hazardous chemicals." It should be on the shelves of all who come in contact with/use chemicals.

Gary F. Bennett