

a paucity of references in the first two sections. Additionally more data sources should have been referenced and general reading suggested (i.e. other books, review articles, etc.). However, my overall evaluation is that this is a reasonably good book.

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*Sources of Ignition: Flammability Characteristics of Chemicals and Products*, by John Bond, Butterworth-Heinemann, Oxford, UK, 1991, ISBN 0-7506-1180-4, 156 pp., £30.00.

In the introduction (to this book) the author states, "In the investigation of fires and explosions, the source of fuel and oxygen are often readily ascertainable. The investigator then turns and determines how the fuel was released or how the oxygen (or air) came into contact with the fuel. In only about 50% of the accident investigations involving fires or explosions is the source of ignition determined with any degree of certainty ... This book deals with flammability characteristics of substance areas and discusses various sources of ignition with case histories to illustrate them."

Subsequent chapters discuss:

- Flammable limits
- Ignition energy
- Autoignition temperatures
- Sources of energy for ignition (mechanical, electrical, thermal, chemical)

There are several appendices of tables and data that actually make up 60% of the book. The largest of the appendices gives the following data "Fire and Related Properties of Chemicals" entitled:

- Flush point
- Autoignition temperatures
- Boiling point
- Flammability limits (upper, lower)
- Minimizing ignition energy at 25 °C
- Liquid specific gravity
- Vapor density

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*Academic Laboratory Chemical Hazard Guidebook*, by W.J. Mahn, Van Nostrand Reinhold, New York, NY, 1991, ISBN 0-442-00165-7, 342 pp., \$79.95.

Van Nostrand Reinhold has out a most enviable series of books given chemical safety information. Books on hazardous chemicals by Sax and Lewis are

the key references in this area. And now two laboratory safety books by Mahn have been added to their prestigious collection. I have just completed a most favorable review of Mahn's book *Fundamentals of Laboratory Safety: Physical Hazards in the Academic Laboratory*. Needless to say I was impressed by the quantity and quality of information it contained. And I found the same in this book.

Over one half of the book is devoted to providing information on common laboratory chemicals and very useful information, I might note. Data given for numerous chemicals include:

- Formula and molecular weight
- CAS Number
- DOT (IMCO) number and classification
- Synonym
- OSHA, PEL, and IDLH and ACIGH TLV
- Toxic effect: routes, symptoms, target organs
- Hazardous reactions
- First aid
- Fire hazards
- Handling
- Spill cleanup

The chemical information data section is preceded by five introductory chapters dealing with:

- Reactive hazards, understanding and control
- Toxic hazards (including the basis of technology)
- Procedures for handling toxic materials
- Chemical labeling and storage (guidelines)
- Laboratory wastes (legal aspects, types, general considerations for disposal)

The book is completed by seven fairly lengthy appendices dealing with:

- Hazardous ratings and classifications
- NFPA labels
- Hazardous materials warning labels Standard chemical label statements
- Toxicology glossary
- Science inventory and storage hazards

In the preface, Mahn writes: "The [his] goal was to provide a volume that is more likely to contain the required information [on hazardous materials] than any other source." I believe the author has succeeded in doing that and doing it very well. I strongly recommend the book's use by faculty, students, laboratory technicians and researchers.

G.F. BENNETT