

derivatives, chlorinated dibenzofurans and quarterphenyls were also present. The perspectives of different authors are evident. One author writes "for an 8 year old boy, we figure it took about 500 mg exposure before the appearance of any disease." Another author writes "It is therefore doubtful whether any generalization can be made from this incident to lower level environmental or occupational exposure to PCB."

Other papers discuss average concentration of PCB in water, fish and air, and the resultant human intake. The health problems that could be caused by PCBs, including cancer, are discussed.

The only aspect of PCBs that is not covered are their control and disposal. To an engineer, concerned with waste disposal, this information would have been of additional value. But I am sure the editors would say that was not their concern -- which was "how much" PCBs are in the environment, how much is the population being exposed to, what is the danger of that exposure, and how should (legally, not physically) that exposure be controlled. That was their aim and one I feel they accomplished well.

The book was photo-reproduced -- cheaper, I'll admit, but not as pleasing as print. The papers were printed as delivered. Colloquialisms, the use of the chit-chat approach and the first person were not edited out. Personally, I feel the editor could have much improved the flow and quality of the writing by a thorough editing job.

GARY F BENNETT

Soot in Combustion Systems and Its Toxic Properties, by J. Lahaye and G. Prado (Eds.), Plenum Press/NATO, 1983, 433 pages, \$57.50

On the cover of his book the publisher writes

"this volume provides a comprehensive exploration of subjects integral to the understanding of the properties and dynamics of soot formation and burnout. This volume examines the reasons that make it necessary to control soot and polyaromatic hydrocarbons (PAH), their toxic properties and the possible genetic hazards in their components. Also considered are the mechanisms of PAH and soot formation and burnout."

The book was the result of a 1981 NATO workshop held in France. Twenty-one papers, divided into four major sections, have been printed: (1) introduction, (2) mechanism of soot formation and burnout, (3) aerodynamics of soot flames, and (4) optical diagnostics. Each of the papers is followed by a report of the discussion by the audience.

The four papers in the introduction section will be of most interest to readers of the journal.

- 1 Soot components as a genetic hazard -- W. G. Thilly, MIT, Cambridge, MA
- 2 The toxicology of soot -- E. Boyland, Centenary Institute of Occupational Health, London

3. A comparative study of soot and carbon black -- D Rivin and A I Medalia, Cabot Corp., Billerica, MA
4. Polycyclicaromatic hydrocarbons and soot from practical combustion systems - J.P Longwell, MIT, Cambridge, MA

GARY F BENNETT

Handbook of Industrial Solvents, 5th edn , Alliance American Insurers, Schaumburg, IL, 1983, 126 pages, \$3 92.

Handbook of Hazardous Materials, 2nd edn , Alliance American Insurers, Schaumburg, IL, 1983, 232 pages, \$9 40

These two handbooks were developed by the Industrial Hygiene Subcommittee of the Alliance of American Insurers and are full of extremely useful physical, chemical and health information on a wide variety of hazardous chemicals

The earlier of these two books is extremely topical (at this point in time) in the United States, as the Congress and the U S Environmental Protection Agency seriously consider the wisdom of allowing solvents to be disposed of in landfills

There are four chapters in this first book, the last of which I consider to be the most important because it contains a great deal of information on solvent properties, synonyms, boiling and flash points, NFPA hazard numbers, flammable and explosive limits, evaporation rate, specific gravity and threshold limit values (8 h and 15 min), all of the data are tabulated for easy access. Additionally, on the page facing the tabulated physical and chemical data of solvents, the authors have given health (toxicity) information, i e , "n-Pentane irritation at twice threshold limit with narcosis at higher concentration. Odor detectable at threshold limit. The threshold unit is based on limited human sensory response and at a level that prevents irritation and narcosis."

The three (short) chapters preceding the data include (1) solvents and their characteristics, (2) estimation of solvent exposure, and (3) control of solvent exposure

The second book is patterned after the first, and why not. If you're successful, don't change. However, it deals with a broader class of approximately 500 hazardous materials, from acetylene to welding fumes, with the same format used above - facing pages of physical data and reports on human toxic effects

The introductory paragraphs in this book are a little different, however (1) properties of hazardous materials, (2) toxicology and threshold limit values, (3) potential hazard recognition, (4) evaluation of exposure, and (5) control of exposure