

Book reviews

P. Hughes, E. Ferrett, Introduction to Health and Safety at Work, second ed., Elsevier/Butterworth-Heinemann, Oxford, UK, 2005 (419 pages, GBP 39.99, €57.95, US\$ 59.95, 21 × 28(1/2) mm soft cover format, ISBN 0-7506-6623-4).

This book was developed as a study manual for the professionals who are preparing for a National Examination Board in Occupational Safety and Health (NEBOSH). An ancillary goal of the book is to provide a text for use by persons having health and safety responsibilities.

The book has 10 chapters titled as follows:

- Health and safety foundations
- Policy
- Organizing for health and safety
- Promoting a positive health and safety culture
- Risk assessment
- Principles of control
- Movement of people and vehicles—hazards and control
- Manual and mechanical handling hazards and control
- Work equipment hazards and control
- Electrical hazards and control
- Fire hazards and control
- Chemical and biological health hazards and control
- Physical and psychological health hazards and control
- Construction activities—hazards and control
- Incident investigation, recording and reporting
- Monitoring, review and audit
- Summary of the main legal requirements
- International aspects of health and safety
- Study skills

Of the above-noted chapters, three include the following material not related to the examination but were added because of their general interest. These topics are: (1) managing occupational road safety, (2) fast track settlement of compensation claims and (3) the effects of alcohol and drugs on occupational health and safety.

One item I looked for but found very little information on was the danger that chemicals pose in the workplace. The topic is barely mentioned.

However, a review of the chapter headings reveals the book's broad coverage on safety. In addition to being well written, the format makes the book easy to utilize. Techniques used in this regard were copious headings, liberal use of colour and numer-

ous figures and illustrations designed to make the material easy to follow.

A very useful chapter for anyone preparing for the above-noted examination is a list of practice questions found at the end of each chapter.

Finally, I note the material contained in the final chapter of the book. In this chapter, the authors discussed the study skills that span the topic from “finding a place to study” to “the examiners’ report.”

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H. Greim (Ed.), The MAK-Collection for Occupational Health and Safety, Part 1: MAK Value Documentations, vol. 21, Wiley-VCH Verlag GmbH & Co. KGaA, Hoboken, NJ, 2005 (333 pages, US\$ 225, ISBN 3-527-27049-3).

The MAK-Collection for Occupational Health and Safety originates in Germany (originally published in German), provides information for health and safety professionals on both the toxicological factors involving threshold values of workplace chemicals as well as methods of monitoring chemicals of concern.

The cover of the volume best describes its coverage:

“Here, documentations for the established MAK values (maximum workplace concentrations) of selected occupational toxicants are provided. The documentations include an authoritative review of the available toxicological studies and data. For every substance, toxic effects, mechanisms and modes of action, toxicogenetics and metabolism, effects in man and animals are described. The carcinogenetic, germ-cell mutagenic, sensitizing or skin-resorptive effects as well as their toxicity to the reproductive system are evaluated. Basic physico-chemical data are provided as well. The doc-

umentations are thus not only essential for the application of MAK values but provide a concise toxicological overview for each substance.”

The book contains nine chapters dealing with one of the following chemicals: arsenic and its inorganic compounds, beryllium and its inorganic compounds, butanethiol, carbon disulfide, diisopropyl ether, ethanethiol, nitrogen dioxide, propargyl alcohol, and vinyl acetate.

Each chapter (dealing with one of the above-named chemicals) has the following sections:

- Toxic effects and mode of action.
- Mechanism of action.
- Toxicokinetics and metabolism.
- Effects in man.
- Animal experiments and in vitro studies.
- Manifesto (MAK value-classification).
- References.

In addition to the nine chemical-specific chapters discussed above, there is one more general chapter dealing with “Monocyclic aromatic amino and nitro compounds.”

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H. Perlar (Ed.), The MAK-Collection for Occupational Health and Safety, Part III: Air Monitoring Methods, vol. 9, Wiley-VCH Verlag GmbH & Co. KGaA, Hoboken, NJ, 2005 (216 pages, US\$ 134, ISBN 3-527-31138-6).

This book is the ninth volume in the series entitled “The MAK-Collection for Occupational Health and Safety”, which was published to make available “. . . all the comprehensive toxicological documentation as well as validated analytical methods issued by the Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area of the Deutsch Forschungsgemeinschaft (DFG)”.

The book contains detailed descriptions of 13 new analytical methods to determine the concentrations of hazardous substances in the workplace air. There is, additionally, a chapter discussing the sampling and measurement of aerosols.

This volume contains information on sampling analysis methods for the following chemicals: ammonia, 2-butanone oxime, 2-butenal, dicyclopentadiene, 2,4-dinitrotoluene, 2,6-

dinitrotoluene, 2,4,6-dinitrotoluene, hydrogen fluoride and fluorides, halogenated anaesthetic gases (halothane, enflurane and isoflurane), sulfuric acid, oleum, thiourea, trichloroethene, tetrachloroethene, triglycidyl isocyanurate and zirconium.

Although the book is written in English, having been translated from the original German, most of the references are to the German literature. The final section of the book contains a list of chemicals that were discussed in the nine volumes in Part III of the series.

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L.H. Ferguson, C.A. Janicak (Eds.), Fundamentals of Fire Protection for the Safety Professional, Government Institutes/Scarecrow Press, Lanham, MD, 2005 (338 pp., US\$ 79, soft cover, ISBN 0-86587-988-5).

The authors have produced a book that comprehensively examines the fire hazard potential in workplaces and discusses the steps that can be taken to prevent fires. Fires, they note, “. . . can strike any type of workplace at any time, resulting in property damage, injuries, and deaths.”

The United States and Canada have the worst records of all the industrialized countries as the number of fire deaths is approximately twice that of other industrialized countries. Fire deaths annually average 18 year⁻¹ (1994–1998) according to NFPA figures. This same data source reports 556 injuries occurred annually during this period, and property damage averaged US\$ 790 million.

In this book, the authors who are university professors and consultants, take “. . . an in-depth look at fire hazards in the workplace—from the substances required to do business to the building construction itself.” Following their establishment of the problem, they provide “. . . practical fire-safety principles that can be applied in any work environment.”

The book has the following chapters:

- Introduction to industrial fire protection
- Chemistry and physics of fire
- Common and special hazards
- Mechanical and chemical explosions
- Building construction
- Life safety and buildings
- Hazardous processes