

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<sup>-1</sup> (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

- Alarm and detection systems
- Fire extinguishment
- Fire-program management

Of interest to me was the discussion of explosions that included BLEVEs (Chapter 4). Their discussion included Crescent City, IL, where an LP gas tank car exploded. Having seen a video of this disaster, the discussion in the book caught my attention. This chapter also included a review of dust explosions, cylinder failure, and explosions in boilers and unfired pressure vessels.

The authors have used several devices to make it easy to use the book: (1) the inclusion of review questions at the end of each chapter with answers supplied in the Appendix, (2) a comprehensive Table of Contents including a list of figures used in the text, and (3) a 12-page Glossary of fire safety terminology.

In my opinion, the book will serve the needs of safety engineers very well as they plan for fire protection and response.

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