

Book reviews

Deutsche Forschungsgemeinschaft, List of MAK and BAT Values 2005: Maximum Concentrations and Biological Tolerance Values at the Workplace, Report #41 of the Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, 2005 (257 pages, US\$ 75.00, soft cover, CD-ROM included, ISBN 3-527-31357-5).

“The MAK value is defined as the maximum concentration of a chemical substance (as gas, vapour or particulate matter) in the workplace air which generally does not have known adverse effects on the health of the employee nor cause unreasonable annoyance (e.g., by a nauseous odour) even when the person is repeatedly exposed during long periods, usually for 8 h daily but assuming on average a 40-h working week. As a rule, the MAK value is given as an average concentration for a period of up to one working day or shift.”

MAK values promote the protection of health in the workplace by providing a basis for judgment of the toxic potential or safety of the concentrations of substances in the workplace air. Data for approximately 800 chemicals are contained in this book.

Following the tabulated numerical data for the aforementioned chemicals, there are chapters discussing:

- Carcinogenic substances;
- Sensitizing substances;
- Aerosols;
- Limitation of exposure peaks;
- Percutaneous absorption;
- MAK values and pregnancy;
- Germ cell mutagens;
- Substances requiring special considerations;
- Biological tolerance values
 - Significance and use of BAT values,
 - List of substances,
 - Carcinogenic substances;
- CAS number index.

Accompanying the book is a CD-ROM disk entitled “List of MAK and BAT Values 2005”.

Gary F. Bennett*

*The University of Toledo, Department of Chemical and
Environmental Engineering, Mail Stop 305, Toledo,
OH 43606-3390, USA*

* Tel.: +1 419 531 1322; fax: +1 419 530 8086.

E-mail address: gbennett@eng.utoledo.edu

25 November 2005

Available online 7 February 2006

doi: 10.1016/j.jhazmat.2005.11.097

T.K. Das (Ed.), Toward Zero Discharge: Innovative Methodology and Technology for Process Pollution Prevention, Wiley Interscience, Hoboken, NJ, 2005 (744 pp., US\$ 110.00, ISBN 0-471-46967-X).

Pollution prevention, sustainability, and life-cycle analysis are three interrelated but currently very popular topics in the environmental field. This book addresses all of them.

The back cover of the book describes its coverage as follows:

“In this contributed volume, recognized experts in the field present methodology and strategy for, and evaluation and quantification of, zero discharge and process pollution prevention. This reference explores technologies and applications, and provides case studies and real-world examples. Coverage includes:

- Sustainability and sustainable development in the chemical and allied industries
- Life cycle assessment
- Industrial ecology, eco-industrial parks, and green engineering
- Case studies of the pulp and paper and other industries”

The editor amplifies the foregoing further on the first page of the book. “In this book, we will focus on the best available industrial processes, techniques, and technologies that treat waste streams, as well as innovative and emerging processes that have better potential for achieving the highest standards in pollution prevention at the plant level, leading to zero discharge.”

And, indeed, they have discussed this topic well in 13 diverse and wide-ranging chapters contributed by a significant number of writers:

- Introduction
- Zero discharge industries
- Fundamentals of life cycle assessment