

**Laura Robinson, Ian Thorn (Eds.), Toxicology and Ecotoxicology in Chemical Safety and Assessment, Blackwell Publishing/CRC Press, Oxford, UK, 2005, 165 pp., £65.00, ISBN 1-4051-1559-9.**

The purpose of this book, according to the authors, is “. . . to provide the suppliers and recipients of chemicals with the means to interpret and apply toxicological and ecotoxicological information.” In my opinion, the authors do this very well in the six chapters noted below:

1. Toxicology
2. Ecotoxicology
3. Classification and labelling of chemicals according to their hazardous nature
4. Handling chemicals in the workplace
5. Chemical control
6. The Material Safety Data Sheet

The topic at hand is thoroughly discussed as illustrated by the subtitles in the first chapter: Toxicity; Chemical irritancy and corrosive effects; Chemical allergies; Genetic toxicity and carcinogenicity; Reproductive toxicology; The nervous system; Alternatives to animal testing.

Each of the foregoing sections is normally followed by reference citations. This list was comprised of books and sources for further reading and in deference to modern technology the authors included a list of useful internet website addresses.

The authors utilized (and discussed) information and regulations from both European and United States sources and even include material from Canada and New Zealand.

In my opinion, the book is thorough, well-written, and will be of significant to those dealing with potentially hazardous chemicals.

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**Roy E. Saunders, Chemical Process Safety: Learning from Case Histories, Third Edition, Elsevier Butterworth-Heinemann, Oxford, UK, 2005, £ 65.00, pp. 339, ISBN 0-7506-7749-X.**

This book is the third edition of Saunders' text. Given his extensive background in an industrial setting as a team leader at the PPG Chlor-Alkali Plant in Louisiana

and the safety course that he taught for AIChE with the well-known safety expert Trevor Kletz, the quantity of information of a practical nature contained in this book is not surprising.

Saunders writes clearly and includes copious case histories (I counted more than 100) and photographs and diagrams. Perhaps the coverage is best illustrated by quoting from Saunders' introduction:

The book will focus on a large number of near misses, damaging fires, explosions, leaks, physical injuries, and bruised egos. A flawed 'plant modification,' improper maintenance, poor operating practice, or failure to follow procedures was determined to be at least a contributory cause in many case histories cited in the chapters that follow. Strangers to the chemical industry might be tempted to think that it is one of the most hazardous of industries; the opposite is true. The U.S. Chemical Industries (and most European Chemical Industries) are among the safest of all industries. The facts show that it requires a high degree of discipline to handle large quantities of flammable, combustible, toxic, or otherwise hazardous materials.

The chemical industry generally handles business so well that it is difficult to find large numbers of recent incidents for examples. Many of the featured case histories in this book occurred over 20 years ago; however, the lessons that can be learned will be appropriate into the twenty-first century. Tanks can fail from the effects of over-pressure and under-pressure in 2010 just as well as they failed in the 1980s. Incompatible chemicals and incompatible in any decade and humans can be forgetful at any time.

As noted above, the author presents a plethora of case histories (in the first eight chapters). He then offers advice in the last five chapters on general topics as follows: "Imagine if" modifications and practical problem solving; the role of mechanical integrity in chemical process safety; effectively managing change within the chemical industry; investigating and sharing near misses and unfortunate incidents (this chapter includes interviewing tips); and sources of helpful information for chemical process safety. This last chapter contains references to process safety centers as well as containing a review of several other chemical process safety books.

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