

*Handbook of Reactive Chemical Hazards*, by L. Bretherick, Butterworth, London, 1975, 976 pages, £ 20.00

Most chemists at some time in their career have probably needed to search through a multitude of literature for documented information in order to assess the potential hazard or risk associated with a particular chemical reaction. This work will surely help to minimise the difficulties which have so frequently been encountered in the past. Publication of this handbook represents the culmination of ten years' effort of gathering and compilation of hazard data for single substances together with interactions between two or more other compounds.

The Foreword by Lord Robens of Woldingham, Chairman of the Enquiry Committee on Safety and Health of people at their place of work, recognises the importance of this volume as "absolutely essential reading" for those responsible for safety in industrial laboratories.

"Bretherick" (the name under which this book must surely become known) contains information in two main sections. The first, occupying 146 pages, lists entries alphabetically according to class, group or topic, *e.g.* metal hydrides, peroxidisable compounds, flammability. A brief description of the significant properties associated with each group is given, followed by a list of individual compounds for which more detailed information may be found in the second section, dealing with specific chemicals. This extends to 810 pages and lists individual entries alphabetically on the basis of molecular formula expressed in the Chemical Abstracts Hill system (*i.e.* C and H first, then other elements alphabetically). Each entry includes a summary of known hazards with the original reference for further reading. A cross-referencing system assists in providing satisfactory access to the wealth of heterogeneous information contained in the handbook.

Whilst this book is essentially unique in content and presentation, it is unfortunate that it is designed primarily for chemists. Problems associated with un-toward reactions resulting from unintentional mixing of chemicals are frequently the cause of much concern to the public emergency authorities when involved with chemical transportation accidents, etc.. Whilst the material contained in this book is superior to the *NFPA Manual of Hazardous Chemical Reactions*, I suggest that its scope could be widened significantly by extending the alphabetical index of Section 1 to include Section 2 also.

It is most encouraging that the author is seeking additional material of new reactive hazards with a view to producing later editions of this excellent and essential work of reference. I thoroughly recommend this handbook to all concerned with chemical safety.

R.F. CUMBERLAND