

- (7) Choosing the right CFS system
- (8) Waste and waste sources
- (9) CFS process: general properties and comparative evaluation
- (10) Portland cement-based systems
- (11) Portland cement/soluble silicate process
- (12) Lime/fly ash and other lime-based processes
- (13) Portland cement/fly ash process
- (14) Kiln dust and fly ash process
- (15) Other CFS and non-chemical processes and systems
- (16) Delivery system
- (17) CFS rating and formulation
- (18) Information sources, computer applications and research development

I did perceive one or two minor problems with the publishing format (not the writer). They are:

- Some tables are continued on the next page and are very hard to follow. Some data (or headings) should be repeated for clarity.
- Some diagrams are hand drawn or reproduced (I believe) from the literature and are not equal to the professional quality of the rest of the book.

However, let not these minor criticisms reduce my strongly held feelings—this is one of the most needed and best books I have seen in some time.

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*Chemical Safety Data Sheets: Volume 2 – Main Group Metals and their Compounds*, by R. Allen (Ed.), Royal Society of Chemistry, Cambridge, U.K., 1990, ISBN 0-85186-913-0, 419 pp., £ 49.95.

In the preface, the editor expresses clearly why I, and many others are keenly interested in this type of book: "Throughout the world there is increasing concern and anxiety regarding the ever present hazards associated with the manufacture, use and disposal of chemical substances'. And that concern is magnified if data on the identification, environmental impact and health effects of chemicals involved in incidents (accidents) is not known. To this end, the Royal Society of Chemistry has set out to provide chemical data in a series of books.

The book contains data in 21 different compounds under the following headings:

- Risk and safety precaution, i.e., pyrophorics
- Safety precautions, i.e., using dry chemicals on fires
- Identifiers, i.e., synonyms, CAS No., IMCO No.
- Threshold limit value, i.e., U.S., U.K. and other European industrial hygiene limits

- Physical properties
- Packaging and transportation by road, sea and air
- Manufacture (processes)
- Uses
- Chemical hazards
- Biological hazards
- First aid
- Handling and storage
- Disposal
- Fire precautions
- Further reading
- References

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*Contamination of Groundwater: Prevention, Assessment, Restoration*, by M. Barcelona, J.F. Keely, A. Wehermann and W.A. Pettyjohn, Noyes Data Development Corp., Park Ridge, NJ, 1990, ISBN 0-8155-1243-0, 211 pp., \$ 45.00.

Groundwater provides the basic water supply for over half the US population. Yet its quality is increasingly threatened by chemical emissions. It's estimated that approximately 1% of the economically producible groundwaters in the United States are already contaminated—and the presence of 170 organics and 50 organic contaminants has been confirmed; many of these chemicals have been introduced by industrial activities. However, the full scope of the problem is not yet understood. For example, it has been estimated that it will take 4 to 5 years to complete one round of organic testing of the 3400 public water supplies in the State of Illinois alone, given the present sampling and analytical capabilities that exist. Not included in this time estimate is analysis of the estimated one half million private wells in the state.

The impact of natural groundwater recharge and discharge processes on distribution of chemical constituents is understood for only a few types of chemical species. Also these processes may be modified by both natural phenomena and Man's activities so as to further complicate apparent climatic, demographic and hydrogeologic factors which may vary from place to place, or even small areas within specific sites. There can be no single 'standard approach for assessing and protecting the quality of groundwater, that will be applicable in all cases'.

Despite these uncertainties, investigations are underway which will be used as a basis for making decisions about the need for and the usefulness of the