Toxicological Information- und Data Network -
A European Challenge?
Workshop, Berlin 9th - 10th September, 2002

ISI: Information System for Safety Data Sheets of the *Berufsgenossenschaftliches Institut für Arbeitsicherheit* - BIA

Roger Stamm, BG-Institute for occupational Safety, St. Augustin, Germany

The *Berufsgenossenschaften* (BGs) are by definition the providers of statutory accident insurance in Germany. One of their foremost statutory tasks is to use any suitable means for the prevention of accidents on the job, occupational diseases, and occupation-related health risks and to ensure effective first aid in the case of workplace accidents. The BGs fulfil these duties by monitoring and advising the firms in their charge, by offering appropriate training, but also by preparing and providing information, such as on the safe handling of hazardous substances at work.

In front of this backdrop, BIA – the institute for occupational safety and health for the BGs' umbrella organisation – has been active in providing information on hazardous substances for many years now. BIA has been compiling and co-ordinating the GESTIS hazardous substances database for the BGs ever since the end of the 1980s. The GESTIS system includes the GESTIS substance database, which can be freely accessed at the BIA web site (http://www.hvbg.de/BIA/Stoffdatenbank). The GESTIS substance database contains relevant information on the health and safety of some 7000 pure substances based on governmental regulation and the scientific literature. Yet in practice, businesses rarely work with pure substances, but with mixtures instead.

The main source of information firms can rely on for handling chemical products safely are the safety data sheets, which the law requires the manufacturer or seller to provide to the commercial user. The BGs also require the safety data sheets in order to carry out their duties, as in

- providing advice and consultation to firms,

- investigating cases of suspected occupational diseases. In such situations, it is necessary to ascertain which hazardous substances and products were handled by staff members suffering from an occupational disease, and how these substances were handled at the workplace – even if the period in question was long ago.

This is why the BGs have developed activities in conjunction with GESTIS to make data on products available in the form of safety data sheets in databases. Yet the selective manual recording of safety data sheets in databases proved to be ineffective.

At the beginning of the 1990s, the chemicals industry association approached BIA with the suggestion that BIA consider the feasibility of a safety data sheet database operated jointly with the chemicals industry. Thanks to the EU Directive and technical regulations on safety data sheets, better and more detailed safety data sheets are available today than was the case just a few years ago.

BIA responded to the suggestion of the chemicals industry association and set up the Information System for Safety Data Sheets – ISI – after the successful conclusion of a pilot project in 1996. ISI is a voluntary initiative of the chemicals industry and the BGs; some 200 firms are currently participating in ISI by providing their safety data sheets and keeping them up-to-date (http://www.hvbg.de/d/bia/fac/isi/isi.htm).

ISI currently contains in 2002 approximately 400,000 safety data sheets. Up-dated safety data sheets are neither replaced nor deleted; instead they are kept accessible in the database as a “historical” record. This is done so that they can remain available as a source of information in the case of future adjudication processes in connection with occupational diseases.

Aside from the BGs, the users of ISI include civil government offices – not only for occupational safety, but also for environmental protection, for protection against hazards, and for the protection of human health. In this respect, the poison control centres both in Germany and in Austria have access to ISI. In making ISI widely accessible, BIA contributes to the effective provision of first aid in poisoning accidents that occur in companies, which

account for a substantial proportion of the cases of poisoning in the Federal Republic of Germany.

ISI is operated in an efficient manner since the safety data sheets are provided as electronic documents in a uniform format, partly on digital media, partly online. The majority of the safety data sheets is kept in a database in ASCII format and can be searched using a full-text search function. Since small and medium-sized companies cannot operate the needed interface, the documents have been made available for download in multiple formats (PDF, HTML, DOC, etc). An ISI server was set up for this purpose, and according to current planning, firms will be able to upload their own documents online by themselves. In addition, the recently opened “ISI Portal” also makes it possible to use links to access safety data sheets that are kept on company internal servers. Several firms have made their safety data sheets publicly accessible via ISI. The ISI Portal is on the way to becoming a hub for safety data sheets on the Internet.