

The TRACE database and databank

TRACE includes information from peer-reviewed toxicology and nutrition journals as well as secondary sources and websites. In addition to primary literature on the health effects of chemicals, TRACE covers official publications and evaluations issued by authoritative groups including:

- WHO/IPCS reports and evaluations (including CICADs and EHCs, and IARC, JECFA and JMPR monographs), and the WHO Air Quality and Drinking-Water Quality Guidelines
- OECD SIDS dossiers/SIARS
- IUCLID data sets
- EU Risk Assessment Reports
- EU expert committee opinions (including EU scientific committees, and EFSA scientific panels) and other reports from EU agencies and institutes etc (including ECHA, ECVAM, EMEA and CPS&Q)
- ECETOC, HERA, Council of Europe and other pan-European programmes
- UK government agency (including Defra, EA, FSA, DoH, HSE, HPA, PSD and VMD) and advisory committee (e.g. COT, COM, COC, ACNFP, SACN, ACP, ACAF, VPC, VRC and ACRE) reports and evaluations
- Opinions from other UK organisations such as the Royal Society
- US agency reports and evaluations (EPA, ATSDR, FDA, NTP, OSHA, NCEA, CFSAN, CERHR, NIEHS, CDC, OEHHA and ACGIH)
- Health Canada evaluations
- BUA, DFG, BG Chemie and BfR reports and monographs
- Gezondheidsraad opinions, including those from its various committees such as DECOS
- RIVM reports
- Danish EPA reviews
- Reports and other information provided by Swedish governmental organisations, including the National Food Administration and the Swedish Chemicals Agency
- Nordic Expert Group for Criteria Documentation of Health Risks from Chemicals
- Australian agency reviews including NICNAS Priority Existing Chemical Assessments, APMVA reports and (jointly with New Zealand) FSANZ assessments
- Japanese Chemical Industry Ecology-Toxicology & Information Center reports
- CIR, RIFM and other specialist industry groups
- bibra Toxicity Profiles (monographs on over 500 substances or groups of substances)



TRACE – Our unique Chemical Toxicology Database

Over the last 50 years we have built an unrivalled databank of more than 600,000 key documents on the health effects of chemicals. This databank (and TRACE, its associated database) provides comprehensive coverage of chemicals likely to be present in the workplace, consumer products (including cosmetics), pharmaceutical impurities/leachables, food and the environment, as well as information on related international regulatory guidelines.

We believe that the TRACE database is the most effective tool available for identifying documents critical to the toxicological risk assessor. Documents selected for inclusion are identified by our specially trained toxicologists who regularly and systematically screen the official publications and websites of government departments and expert groups, as well as a large number of peer-reviewed toxicology and nutrition journals and secondary sources. Unlike any comparable on-line database, TRACE is therefore uniquely equipped to identify key toxicity reviews and opinions issued by expert organisations from around the world, thus enabling a rapid and robust insight into a chemical's toxic potential. In recognition of TRACE's important coverage of the toxicological literature, it has been listed as a valuable data source in the official European Chemicals Agency (ECHA) Guidance on the identification of toxicity data for REACH purposes.

However, what is truly special is the speed with which we can access, on site, the original documents referenced so effectively in TRACE. With such a fast and accurate information retrieval system, our consulting team can offer unrivalled efficiency and level of toxicological advice and support to our clients, in a very cost-effective way.

Supported access to TRACE means we can provide timely and accurate information in the field of chemical toxicology and risk and hazard assessment for clients.

- Using TRACE, we are able to expertly locate and summarise data according to client requirements, provide accurate information on the health effects of selected chemicals, identify specific documents speedily and efficiently, and prepare comprehensive bibliographic reference lists on defined issues.
- We can assist in the interpretation of new guidelines and requirements for regulatory approvals on any aspects of health or safety legislation.
- A range of bespoke current awareness services can be provided, including regular updates of company-specific safety profiles on defined chemicals, and customised searches at agreed intervals for data on specified products

Comparative Assessments of TRACE in the peer-reviewed literature

Abstract: "The retrieval precision and recall of a specialist bibliographic toxicity database (TRACE) and a range of widely available bibliographic databases used to identify toxicity papers were compared. The analysis indicated that the larger size and resources of the major bibliographic databases did not, for a series of test queries, assure superior retrieval of relevant papers. The specialist database, TRACE, in which document selection and indexing is undertaken by the same expert toxicologists who use the database in their day-to-day work, achieved markedly better retrieval, using simpler search strategies, than the other databases. Specialist databases may offer a valuable alternative to the existing major bibliographic databases" (Anderson et al. 2000)¹.

Abstract: "An evaluation of toxicology information resources is reported, comparing commercial online databases and a specialised in-house database [TRACE]. A mixed qualitative/quantitative approach, using 10 test queries and detailed failure analysis was used. The main conclusions are: the in-house database is superior to any 'general' database in recall and precision; commercial databases are a useful complement, usually providing unique material; a range of databases should be used for good recall; for the commercial databases, complex search strategies are necessary, using the specific access points of each database; retrieval failures are due primarily to coverage, secondly to poor indexing of specific toxic effect" (Robinson et al. 2000)².

Anderson CA, Copestake PT and Robinson L (2000). A specialist database (TRACE) is more effective than its larger, commercially available counterparts. *Toxicology* 151, 37-43. (doi: 10.1016/S0300-483X(00)00264-X)

Robinson L, McIlwaine I, Copestake P and Anderson C (2000). Comparative evaluation of the performance of online databases in answering toxicology queries. *International Journal of Information Management* 20, 79-88. (doi: 10.1016/S0268-4012(99)00056-0)