



Mary Kay O'Connor Process Safety Center  
2005 International Symposium  
Beyond Regulatory Compliance, Making Safety Second Nature  
October 25-26, 2005

---

## **A Proposal for a National Reactive Chemicals Database**

Harold M. Johnstone  
Dow Chemical Company  
2301 N. Brazosport Blvd.  
Freeport, TX 77541, USA  
Phone: (979) 238-9758, e-mail: hmjohnstone@dow.com

### **Abstract**

The original concept of a National Reactive Chemicals database was first discussed by industry and the National Institute of Standards and Technology (NIST) several years ago, but progress was slowed by legal/liability issues. Momentum for this idea returned when the U.S. Chemical Safety and Hazard Investigation Board (CSB) published a report in 2002 making a formal recommendation to NIST and the industry groups (ACC and SOCMA) to work together to establish such a database. Many experts agree that there is a need for the development of a coherent strategy for this idea based on a collaborative effort between CSB, NIST and both SOCMA and ACC membership.

This paper outlines the critical issues for the establishment of a national database of reactivity and flammability information including a discussion of whether or not such a database is needed and would be used effectively by its intended audience, those companies without well established Reactive Chemicals/Process Safety programs. This paper includes a vision for the database's structure, proposals on how it could be managed, potential solutions to the liability concerns regarding data donation, the types of data which should be included, how to ensure data quality, how to ensure the data are used properly, and the need for economic incentives to encourage data donation. It is hoped that this paper will stimulate further interest in the topic and foster broad stakeholder involvement in the process.