

Sirisak Kumpiranon 2009: The Program Development for Management of Chemical Substances and Hazardous Materials Based on the Globally Harmonized System of Classification and Labeling of Chemicals. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Nanthiya Hansupalak, Ph.D. 79 pages.

The objectives of this research were to design and develop software that enabled users to create a database of chemical safety data, to search for safety data of the desired chemical, and to issue a chemical safety data sheet and a label according to the GHS. In this regard, a software using manual was made, and the evaluation of satisfaction on using of the software was also carried out. Data of 10 chemicals, frequently used in the paint industry, had been collected and used as exemplars herein. The software was developed based on relational database principle using Microsoft Access 2003 and Visual basic 2005. The database was designed to have 16 different information according to the GHS, e.g. Product identifier, Hazard identification, and Composition/information on ingredients. The software could work successfully according to its designs. The software evaluation was done by handing out the questionnaires to 30 workers who were working in the paint industry and regularly used safety data sheet, only one of which was in charge of inputting the chemical safety data into the program. The survey revealed that all workers were highly satisfied with the software and the reports, both in the forms of a safety data sheet and a label.

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Thesis Advisor's signature

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