

Semi-quantitative chemical expert tool for occupational safety and health (use and standards of exposure of chemicals hazardous to health) regulations 2000

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ABSTRACT

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000 (USECHH 2000) is a regulation under the Occupational Safety and Health Act (OSHA) 1994 that has been established to provide a legal framework for controlling the exposure of chemicals hazardous to health (CHTH) at the workplace. The increasing number of occupational diseases and poisonings reported is worrying as it reflects improper chemical safety management and non-compliance with relevant legislations. The lack of systematic techniques that could be easily adopted for self-assessment has hindered many organizations from complying with this regulation. To help curb this issue, a semi-quantitative self-assessment tool, called chemical expert tool (CET), was developed based on USECHH 2000 and Guidelines on Control of Chemicals Hazardous to Health, 2001 (GCCHTH 2001). The CET was developed using Microsoft Excel and validated via feedback from four expert panels and three case studies. The case studies were carried out involving three end-users to experience the usability, comprehensiveness, and efficiency of the CET. At the end of the self-assessment, the users were provided with the value of the percentage of compliance with USECHH 2000 and GCCHTH 2001, together with the ability to identify the area for improvement, which in the end could lead to better compliance and a safe and healthy workplace. Based on the responses to all questions in the system usability scale, most of the respondents were satisfied with the CET. Utilizing the CET will help the users promote and provide safe management of CHTH at the workplace.

KEYWORDS

Chemical expert; Chemical hazardous to health; Safe chemical management; Self-assessment; USECHH 2000

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