

Workplace exposure — Strategy for the evaluation of dermal exposure

ICS 13.100

National foreword

This Published Document is the official English language version of CEN/TR 15278:2006.

Additional information

The responsible BSI committee, EH/2/2, “Air quality — Workplace atmospheres”, wishes to bring to the attention of users of this PD that the measurement principles and sampling strategies described (clauses 3.4.2 and 3.4.3) are not applicable to assess risk from dermal absorption of vapours. Typically, exposure due to dermal absorption of vapours can be assumed to equate to 10 % of inhalation exposure at any given concentration. However, it can reach levels equivalent to 40 % of inhalation exposure for workers operating in high humidity/high temperature (> 30 °C) environments with chemicals that are readily absorbed by the skin.

Risk from dermal exposure to vapours can be particularly significant for workers operating in confined spaces using respiratory apparatus. This risk can be further exacerbated by heavy protective clothing, such as overalls, which can increase the temperature and humidity near the skin.

Where the rate of chemical uptake into the skin is high, biological monitoring (if available) can be used as a check on all routes of exposure including dermal exposure to vapours. Its use should also be considered if the toxicity of the chemical is high, even if the rate of chemical uptake into the skin is expected to be low. Available biological monitoring methods include blood, urine and breath testing. Further information is available in HSE publication “Biological Monitoring in the Workplace”, HSE www.hse.gov.uk.

The UK participation in its preparation was entrusted by Technical Committee EH/2, Air quality, to Subcommittee EH/2/2, Workplace atmospheres, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Summary of pages

This document comprises a front cover, an inside front cover, page i, a blank page, the CEN/TR title page, pages 2 to 21 and a back cover.

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Amendments issued since publication

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