Dermal risk assessment – going Dutch

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Cosanta B.V.

- Private limited company
- Chemical management service provider
- Owner and developer of Stoffenmanager®

Meet Stoffenmanager
More than 35,000 users, 50 new users per week.
Background

- Legal obligation to perform a chemical risk assessment (Chemical Agents Directive or REACH Regulation).

- Inhalation exposure assessment is often the starting point, using (validated and accepted) quantitative exposure models or performing exposure measurements.
The dermal challenge

(SME)-Companies hardly perform (quantitative) dermal risk assessment

- There are exposure models available but not much used in practice
  - The level of details are often too extensive for a simple risk assessment
  - The output (e.g. risk score I, II, III) still needs to be translated to the workers in terms of necessary control measures

- Measurements are complicated and methods are not standardized

- There is a lack of dermal occupational exposure limit values
The dermal challenge

In practise:

- Companies perform a certain qualitative dermal risk assessment
- They prescribe personal protective equipment (PPE)
  - Gloves | Eye protection | Protective clothing
- This is sometimes described in a PPE-guide or matrix
- Often based on type of process and hazard characteristics, e.g. corrosive substances
The Dutch Labour Inspectorate regularly inspects companies that work with hazardous products.

https://hazardoussubstances.zelfinspectie.nl/
Step 2 is to ‘Assess Exposure’
- Dermal exposure assessment is also required and mentioned in letters addressing companies that do not comply.
- A stepwise approach is described
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1. Identify substances that are hazardous by skin contact or uptake

- Substances with a Skin notation
  - As published in Dutch list of occupational exposure limit values #

- Substances with certain H-statements
  - H310-H312, H314, H315, H317

# https://wetten.overheid.nl/BWBR0008587/2019-04-01#BijlageXIIIa
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2. Describe the exposure

- Describe whether exposure can occur
- Describe how exposure can take place
- Describe how it can be prevented
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3. Take Control Measures

- Take efficient actions

  ➔ "If contact with these substances takes place or is possible, then the control measures are not efficient."

http://www.hse.gov.uk/skin/posters/contact.pdf
Summary

1. Identify substances hazardous to skin
2. Describe exposure
3. Take control measures
Results

For (SME) companies

• An easy-to-use dermal risk assessment
• Descriptive method
• No in-depth quantitative exposure assessment required
• Includes advice on protective measures
Know-how of the assessor is required to record basic exposure parameters like duration of the task, main exposure route and exposed surface.

A familiarity with the actual working conditions is required ➔ should be done on site!

The company still needs to select the right protection based on the chemicals involved.
Reflections of an occupational hygienist

- Good practical starting point so that at least dermal exposure is not overlooked!
- Method can be applied by SME

- Do not forget substances with other H-statements or non-chemical hazards
- Can be used or extended with e.g. biological monitoring or visualization techniques.
Discussion

- Is this the future of dermal exposure assessment?
- Is there no need anymore for quantitative exposure assessment or a ‘weighing’ of the risk?
- Does it offer sufficient protection to workers? Or is it to protective → no exposure allowed!
- Is it not ‘to quick-and-dirty’?
- What do other Labour Inspectorates do?
Thank you

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Cosanta Solutions for chemical risks

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