

FOCUS ON

Hazardous substances causing dermatitis

Delivery Guide

Focus On Learning Key



Read

Read through the following information



Exercise

Analyse the information in your work group



Discuss

Go through questions in your workgroup

A

Participants have been asked to list chemicals (hazardous substances) that they regularly use at work. This information can be used to compare with the hazardous substances register. If there are chemicals on the participants list that are not on the register, these chemicals should be removed from the workplace or a risk assessment conducted and incorporated into the hazardous substances register. There must be procedures for the correct use of all hazardous substances used in the workplace and workers need to be trained in their proper use. Participants have been asked to identify a chemical that they regularly use. This is the chemical that will be risk assessed in the activities to follow¹.

B

Once participants understand the possible effects of exposure to hazardous substances, they are ready to assess the possible consequence of exposure to a chemical that they regularly use. An example has been provided to guide participants through the activity. Work through the example before working with participants on their chemical exposure.

¹ Australian Institute of Occupational Hygienists (2007) *Principles of occupational health and hygiene*, C.Tillman, Allen & Unwin, Australia

If the consequence assessment is “red”, alternative or substitutes that will reduce the consequence (negative health effect) should be explored.²

C

The concentration of a chemical that an individual is exposed to determines the intensity of the exposure. High intensity exposures increase the likelihood of a negative health effect. Material Safety Data Sheets (MSDS) provide information to determine the intensity of a chemical exposure. To complete this activity, participants will need access to the MSDS for their identified chemical exposure. An example has been provided to guide participants through the activity. Work through the example before working with participants on their identified example. If the intensity has been assessed as “red”, measures to reduce intensity should be explored³.

D

Assessing time weighted average (TWA) establishes the basic knowledge and skill in assessing if the chemical exposure is under the time weighted average standards and assists participants in identifying when they may be approaching an exposure threshold .

The more time or duration of the exposure to a chemical the more likely a negative health effect will occur. .

² Australian Safety and Compensation Council (2006) *Occupational dermatitis in Australia*.

³ International Council of Mining and Metals (2009) *Good practice guidance on occupational health risk assessment*. London UK

Focus On Dermatitis

Delivery Guide

Where the length of exposure has been assessed as “red”, measures to reduce the amount of time exposed should be explored. The number of times or frequency of the exposure can also increase the likelihood of a negative health effect. Where the frequency has been assessed as “red”, efforts to reduce the number of times of exposure should be explored.

An example has been provided to guide participants through the activity. Work through the example before working with participants on their identified chemical.⁴

E

With some chemicals, higher intensity exposures can be tolerated in short periods. Only chemicals with a Short Term Exposure Limit (STEL) value can be assessed for short term exposure limits. In the absence of a STEL value, the limit is assessed against a Time Weight Average (TWA).

The more time (length or duration) we are exposed to a chemical, the greater the likelihood of a negative health effect. Where the length of exposure has been assessed as “red”, measures to reduce the exposure should be applied. An example has been provided to guide participants through the STEL ‘length’ assessment. Work through the example before working with participants on their identified chemical exposure⁵.

F

Likelihood also increases with each time we are exposed to a chemical and so frequency of exposure is assessed. An example has been provided to guide participants through the STEL ‘frequency’ assessment. Where the frequency of exposure has been assessed as “red”, options to reduce the frequency should be identified and implemented.

^{4, 7 & 8} International Council of Mining and Metals (2009) *Good practice guidance on occupational health risk assessment*. London UK

^{5 & 6} Australian Institute of Occupational Hygienists (2007) *Principles of occupational health and hygiene*, C.Tillman, Allen & Unwin, Australia

An example has been provided to guide participants through the activity. Work through the example before working with participants on their identified chemical exposure⁶.

G

Breaks between successive exposures allow the body to process and prevent build-up of chemical referred to as cumulative exposure. The larger the break between successive exposures the more opportunity the body has to eliminate the chemical.

Where the break between exposures has been assessed as “red” opportunities to increase the length of time between exposures should be explored. An example has been provided to guide participants through the activity. Work through the example before working with participants on their identified chemical⁷.

H

The aim of this exercise is to identify the contributing factors that increase the risk of a negative health effect so that a more strategic approach in implementing and assessing controls can occur. An example has been provided to guide participants through the activity. Work through the example before working with participants on their identified chemical⁸.

Acknowledgement

This Focus On has been developed in consultation with various industry stakeholders from the NSW mining industry and endorsed by the NSW Mining and Extractives Industry Health Management Advisory Committee (HMAC). HMAC reports to the NSW Mine Safety Advisory Council and has membership from the NSW Minerals Council, Cement Concrete and Aggregates Australia; CFMEU, AWU, Coal Services, WorkCover NSW, NSW Trade & Investment and an independent health expert.

Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Trade & Investment or the user's independent adviser.