

Improved Communication of Risk Management Measures along the Supply Chain of Chemical Substances

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Exposure Scenarios
Unit 4.1

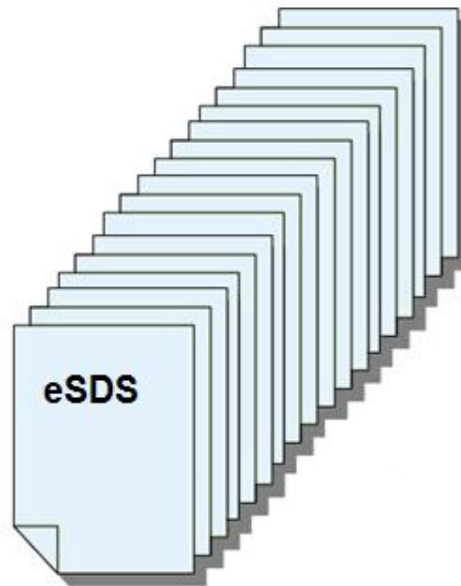
Improvement of Communication

REACH aims to provide a better and more reliable information exchange for safe use of chemical substances along the supply chain

- communication of risk management measures (RMM) for worker exposure is based on the information in the CSR
- the information is very generic
- often not directly applicable to the work place situation in question
- passed via (extended) safety data sheet (eSDS)

Supply chain communication

- huge amount of information challenges supply chain members
- difficult to identify the relevant information in the eSDS



→ Work to improve the communication is ongoing

Supply chain communication

Strengthening the communication along the supply chain of chemicals is important

- focal point for chemical safety in the BAuA R&D program 2014–2017
- BAuA contributes to activities of the European Chemicals Agency (ECHA) on a Roadmap for better chemical safety information:
 - improving Chemical Safety Reports (CSR)
 - improving Exposure Scenarios (ES)



→ **project “How to build a link between existing risk management advice and REACH exposure scenarios?”**

Supply chain communication

REACH

Exposure Scenarios



INTERFACE

Safe Use



OSH

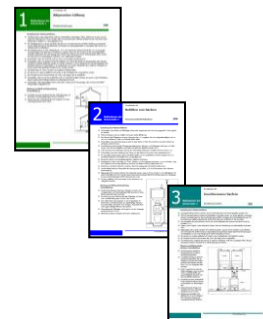
Risk Management Measures

Control Guidance Sheets (CGS)

Risk management advice like CGS

- developed by COSHH/HSE
 - designed to support employers to implement the required measures for safe work places
 - also offer the opportunity to describe RMM and forward this information down the supply chain
- Easy-to-use workplace control scheme for hazardous substances → **EMKG** developed by BAuA in 2005

- 3 parameters:
 - hazard
 - release
 - quantity group } control strategy



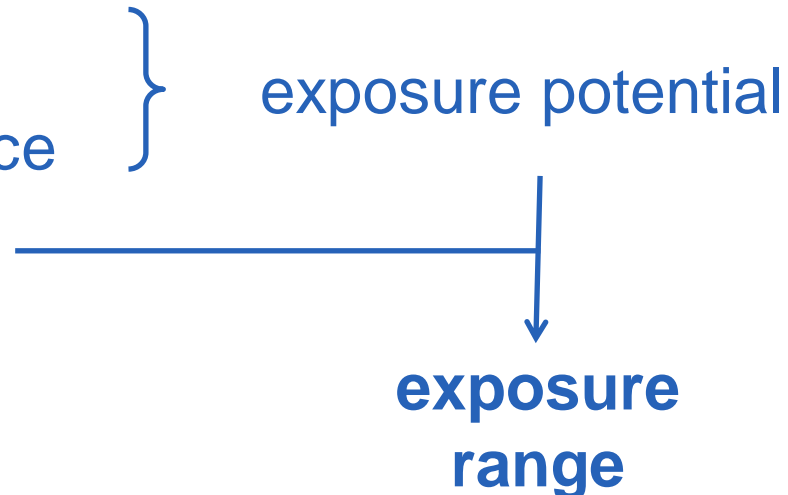
EMKG
CGS

EMKG-Expo-Tool

- Developed within the context of REACH
- Tier 1 assessment for inhalation exposure
- Part of the EMKG

– 3 parameters:

- release
- amount of substance
- control strategy



EU Control Guidance Sheets

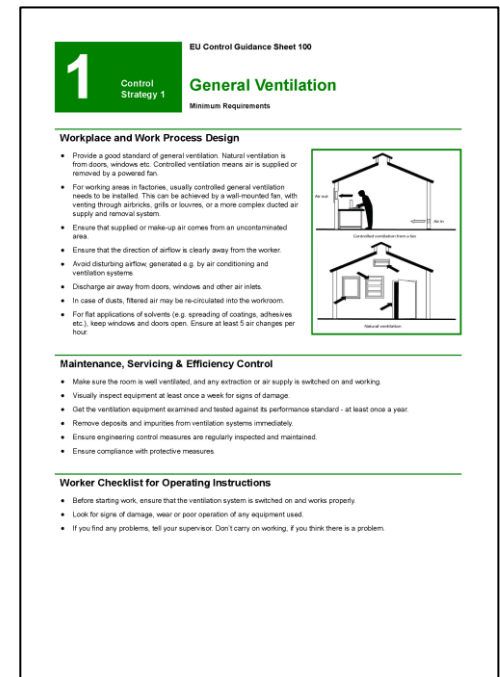
EMKG CGS were developed for the German industry

- CGS include national characteristics and consider national legislation
- The EMKG-Expo-Tool is not smoothly usable throughout the EU (REACH-area)

→ BAuA develops EU-CGS:

- Without national characteristics
- Available in English and German
- Based on standard phrases (EuPhraC, ESCom)

→ simplified translation in other languages

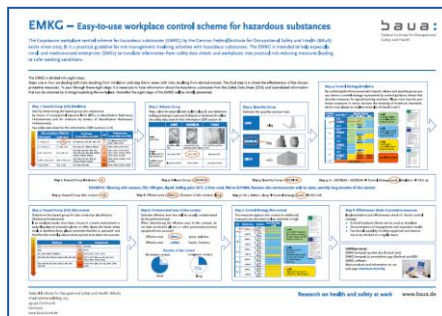


Summary

Control banding tools

- are an opportunity to fulfil the requirements of REACH, and
- help downstream users to make risk management at their workplaces simple and fast
 - the link between REACH exposure scenarios and legal demands from occupational safety and health is improved
 - **a high level of safety and health at workplaces in the EU can be REACHed**

Thank you!



EMKG - Exposure assessment part for solids

Definition of dustiness bands

Band	Description
1	Very low dustiness. Like exposure of very dust-covered surfaces. For example: PVC panels, waxes.
2	Low dustiness. Granular solids, when used, dust in air, but not on the surface after use. For example: loose powder, sugar, flour, and cereals, other loose, dust clouds, when used, dust in air and on the surface after use.
3	Medium dustiness. When used, dust clouds, when used, dust in air and on the surface after use.
4	High dustiness. When used, dust clouds, when used, dust in air and on the surface after use.

Scale of use bands

Band	Description
1	Very low use. No program for solids.
2	Low use. Program for solids.
3	Medium use. Program for solids.
4	High use. Program for solids.

Control strategies

Control Strategy	Type	Description
1	General ventilation	Good general ventilation and good work practice.
2	Engineering controls	Good engineering controls, e.g. storage and work enclosure, not complete containment and good work practice.
3	Containment	Containment, but some measures may be inadequate. Good work practice.

Exposure potential bands (EP)

Scale of use band	Dustiness band	Description
1	Small	Scale of use / medium dustiness
2	Medium	Scale of use / high dustiness
3	High	Scale of use / very high dustiness
4	Very high	Scale of use / extremely high dustiness

Predicted exposure ranges: Solids

Control Strategy	Solids EP Band 1	Solids EP Band 2	Solids EP Band 3	Solids EP Band 4
1	0.01 - 0.1	0.1 - 1	1 - 10	> 10
2	0.001 - 0.01	0.01 - 0.1	0.1 - 1	1 - 10
3	< 0.001	0.001 - 0.01	0.01 - 0.1	0.1 - 1

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1 Control Strategy 1 **General Ventilation**
 Minimum Requirements

Workplace and Work Process Design

- Provide good standard of general ventilation. Natural ventilation is limited by 4 minimums.
- For working areas in factories, usually controlled general ventilation needs to be installed. This can be achieved in a number of ways, with varying degrees of complexity, such as:
 - a more complex ducted or ductless system
 - Ensure that supplied or recirculated air comes from an uncontaminated area.
 - Avoid disturbing airflow generated e.g. by air conditioning and ventilation systems.
 - Discharge air away from doors, windows and other air inlets.
 - In case of ducts, these can be recirculated into the workspace.
 - For flat applications of solvents (e.g. spreading of coatings, adhesives etc.), best windows and doors open. Ensure at least 3 air changes per hour.

Maintenance, Servicing & Efficiency Control

- Make sure the room is well ventilated, and any exhaust air is well filtered on exit.
- Visually inspect equipment at least once a week for signs of damage.
- Test the ventilation equipment annually and labeled against its performance standard, at least once a year.
- Replace ducts and ductwork from ventilation systems immediately.
- Ensure engineering control measures are regularly inspected and maintained.
- Ensure compliance with procedure measures.

Worker Checklist for Operating Instructions

- Before starting work, ensure that the ventilation system is switched on and works properly.
- Look for signs of damage, wear or poor operation of any equipment used.
- If you find any problems, tell your supervisor. Cease any work if you think there is a problem.