



Bundesanstalt für Arbeitsschutz
und Arbeitsmedizin

From Generic REACH Information to Concrete Protective Measures at the Workplace

Melanie Berghaus

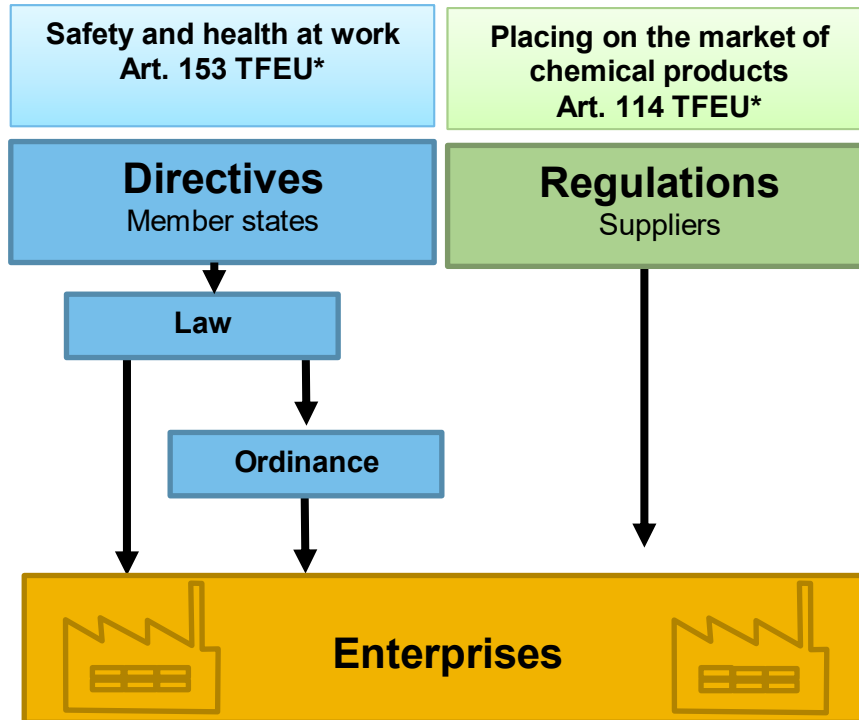
- Group 4.I.1, Federal Institute for Occupational Safety and Health (BAuA), Dortmund, Germany

ISES Europe 2024, 19.-21.3.2024, BfR, Berlin

Content

- **EU-Legislation**
 - Interface between regulations like REACH and directives on OSH
- **Using REACH Information for Workplace Risk assessment**
 - German EmpfGS 409
- **EMKG Workplace & Chemicals**
 - Ongoing projects

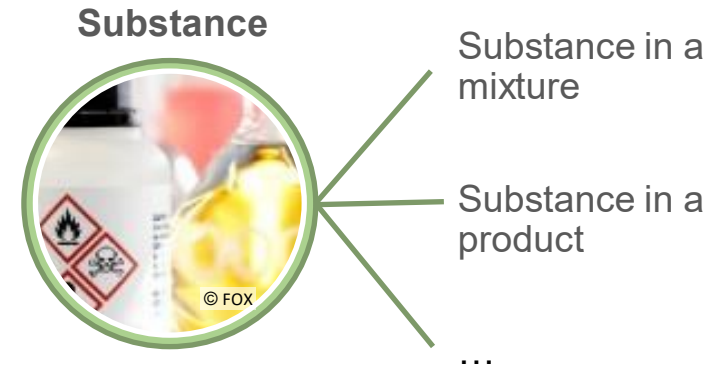
EU-Legislation



Focus

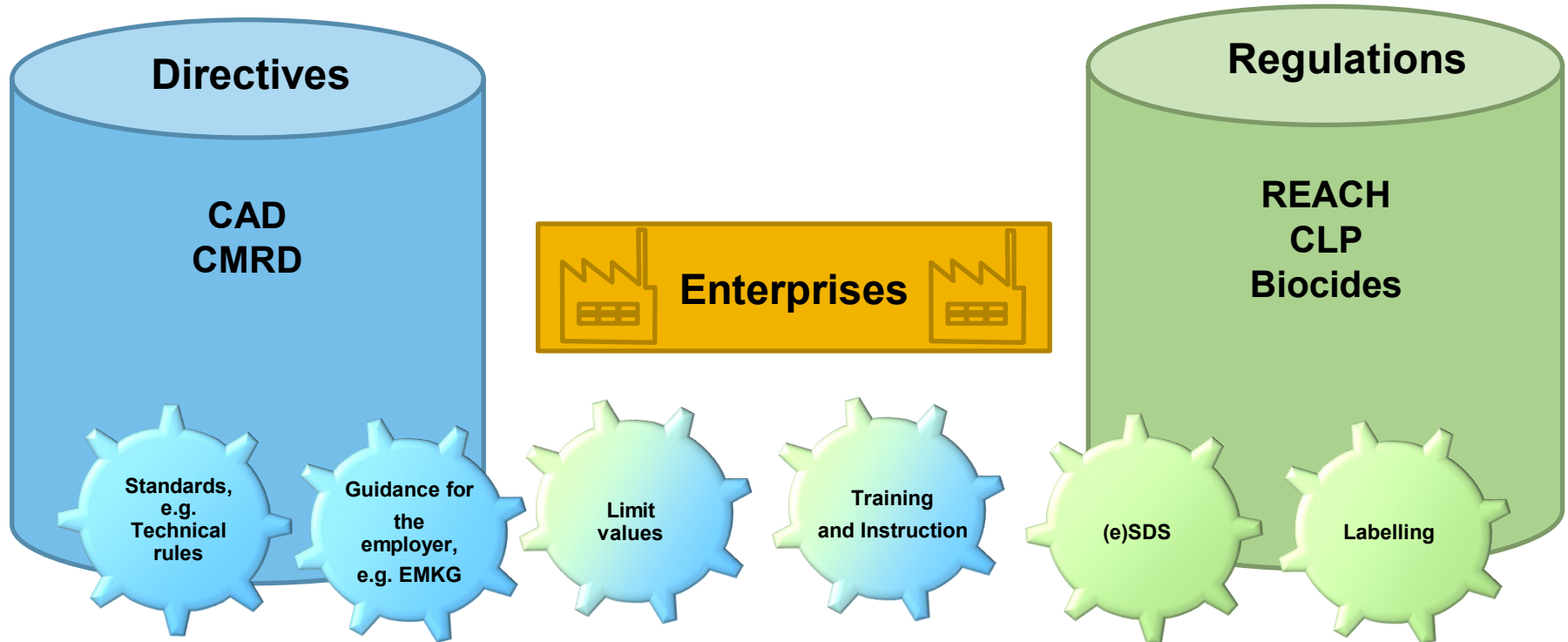
Hazardous substances

Chemicals



Images: © FOX / others www.pixabay.com

Interface



Directives



**“Framework Directive”
for occupational safety and health
89/391/EEC**

**Occupational Health
and Safety Act
(ArbSchG)**

**Chemical agents directive (CAD)
98/24/EC**

**Hazardous Substances
Ordinance (GefStoffV)**

**Carcinogens, mutagens or reprotoxic
substances directive (CMRD)
2004/37/EC**

TRGS



Images: © FOX, others
www.pixabay.com

Assessment of risks at the workplace

Hazard information



Images: © FOX /others www.pixabay.com

**Classification
Limit values**
(binding national OEL and non-binding, e.g. DNEL)



Risk



Measures
(specific)

Activity- and company-specific information



**Specific
for the
workplace**

EmpfGS 409 „Using REACH information for OSH “

- Determined and issued by the German **Committee for Hazardous Substances (AGS)**.
- Oriented on the Technical Rule for Hazardous substances (TRGS) 400 „Risk Assessment for Activities involving Hazardous Substances“ concretising GefStoffV

Empfehlung zu Gefahrstoffen EmpfGS 409 - Seite 1 von 28 (Fassung 2.2.2024)

Ausgabe Oktober 2023

GMBI 2023, S. 1028 [Nr. 47] v. 9.11.2023

berichtigt 2.2.2024, <https://www.baua.de/DE/Angebote/Regelwerk/TRGS/EmpfGS-409.html>

Empfehlungen zu
Gefahrstoffen

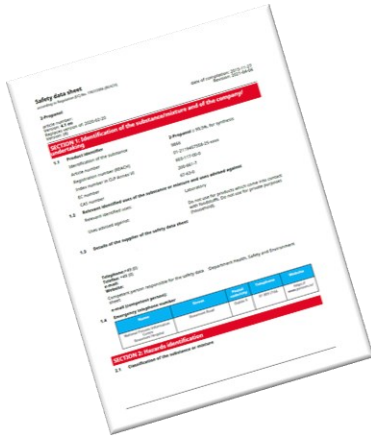
Nutzung von REACH-Informationen für den
Arbeitsschutz

EmpfGS 409

Safety Data Sheet (SDS)

EmpfGS 409 on SDS:

- Central instrument for communicating information under REACH
- It has to enable the employer to establish appropriate protective measures at the workplace
- Update of the SDS → Update of the risk assessment



Supplier delivers more information for **substances** classified as **dangerous according to CLP** or **PBT/vPvB** when he registered **more than 10t/a**:

**Extended Safety Data Sheets
(eSDS)**

Exposure scenario

Chemical



DNEL – Inhalation*
DNEL – Skin*



Risk



**Measures
(generalized)**

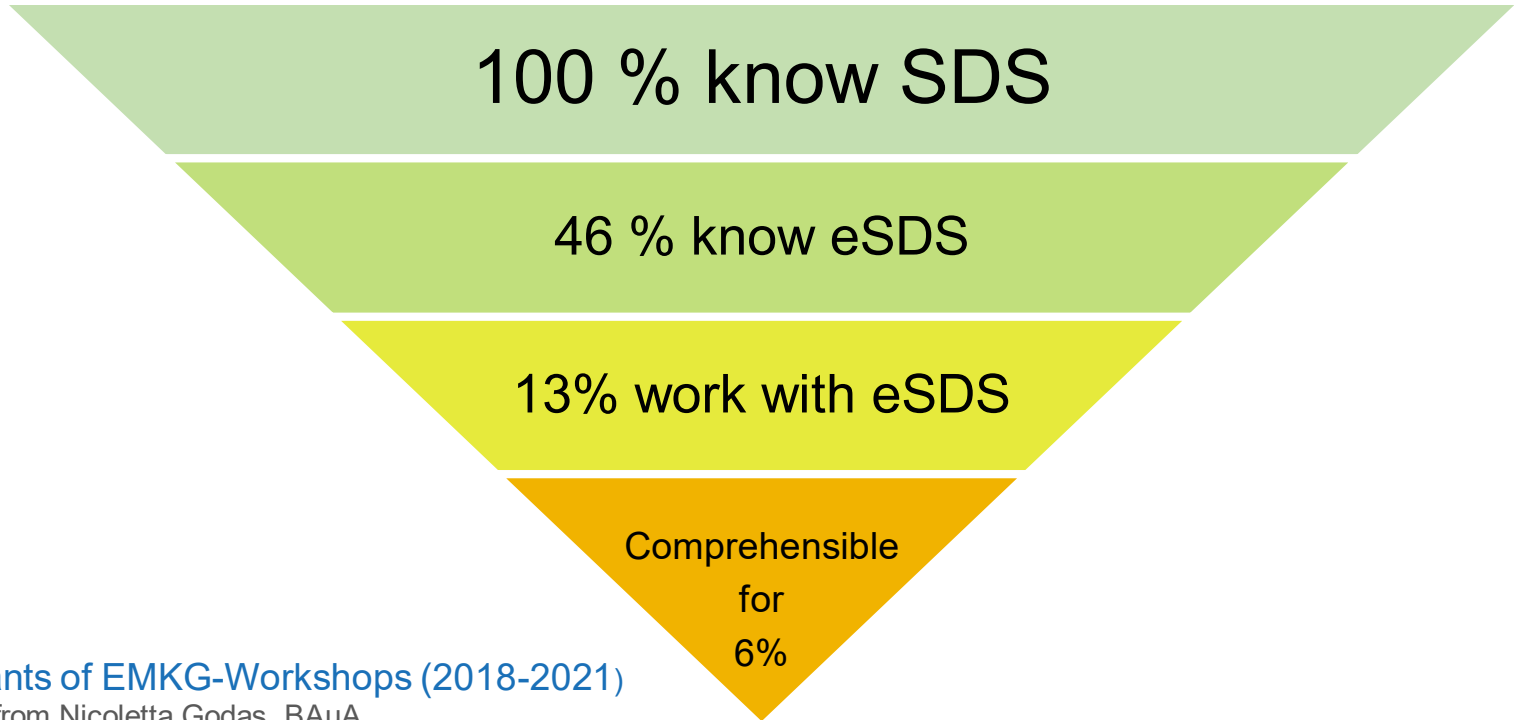
**Exposure level
during the activity**



**Exposure
assessment**

*Derived No Effect Level (DNEL), derived by the registrant

Excursion to reality



346 participants of EMKG-Workshops (2018-2021)

Figure adapted from Nicoletta Godas, BAuA

Exposure Szenarios (ES):

- Good starting point, but needs to be adapted to the actual workplace
- Cannot fully replace task and workplace specific measures
- Other factors, e.g. noise, have to be included

Adaptation necessary: Some Examples

(e)SDS

Real workplace

Main part

Gloves:
Specific product

- Others could be used as well
- Might not be suitable for the task

ES

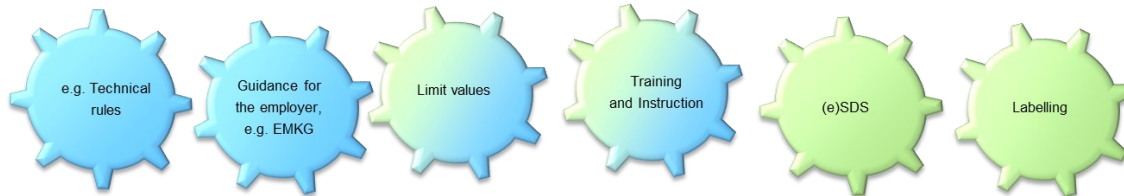
...LEV with 90%
efficiency...



<https://www.baua.de/EN/Topics/Work-design/Hazardous-substances/Working-with-hazardous-substances/Bulk-materials.html?pos=1>

Excursion to reality

- More than 96 % of all enterprises in Germany are micro and small enterprises with less than 50 employees*

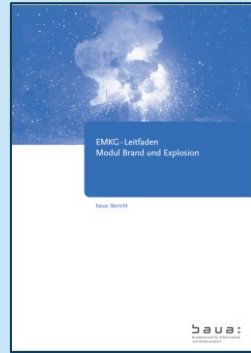


- Tools are required that build up on the training and experience of those responsible

[*https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/Kleine-Unternehmen-Mittlere-Unternehmen/Tabellen/wirtschaftsabschnitte-insgesamt.html?nn=208440#fussnote-1-130538](https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Unternehmen/Kleine-Unternehmen-Mittlere-Unternehmen/Tabellen/wirtschaftsabschnitte-insgesamt.html?nn=208440#fussnote-1-130538)

EMKG Workplace & Chemicals

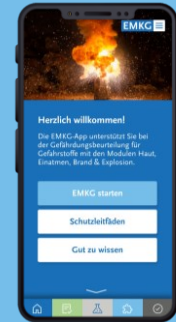
Analog



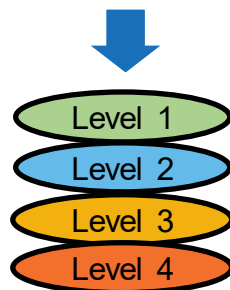
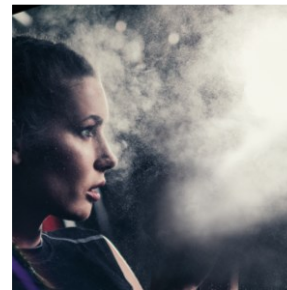
Digital



Bild: www.pixabay.de



Steps of the EMKG Workplace & Chemicals*

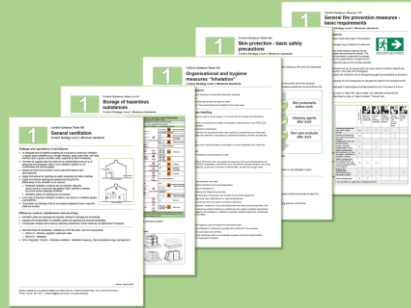


**Every Level concretised
by Control Guidance
Sheets (CGS)!**

*Based on the tiered approach of the [“Practical guidelines of a non-binding nature on the protection of the health and safety of workers from the risks related to chemical agents at work”](#) by the European Commission as well as the German GefStoffV and its Technical Rules on hazardous substances

EMKG-CGS – minimum standards

Level 1



...have to be implemented at all times!



EMKG-CGS: Additional Measures

Skin



Inhalation



Fire and Explosion



Level 2

Technical and organisational measures
CGS 250



Technical measures
CGS 2XX

Technical measures
CGS 2XX
Advanced fire protection measures
Preventive explosion protection
Activity-specific avoidance of ignition sources

Level 3

Closed System
CGS 3XX



Closed System
CGS 3XX

Closed system
CGS 3XX
High fire protection measures
System-specific/activity-specific avoidance of ignition sources
Constructive explosion protection



F2440 Measures for Control Guidance Sheets (MapS)



Figure by Ewa Kaczmarczyk-Schmitz, systemkonzept GmbH

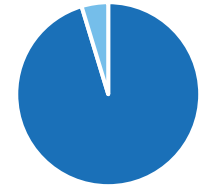
Checkboxes

Room for notes

The screenshot shows a document titled 'EMKG-Schutzleitfaden 200' under 'Maßnahmenstufe 2' and 'Grundlegende Anforderungen: Organisation'. It includes a section 'Gestaltung der Arbeitsbedingungen' with a checklist item: '1. Der Arbeitsbereich ist nur den Beschäftigten zugänglich, die sie zur Ausübung ihrer Arbeit oder zur Durchführung bestimmter Aufgaben betreten müssen'. A checkbox is checked, and a text field labeled 'Anmerkungen' is visible.

Would you prefer an adaptable template [for CGS] with checkboxes and text fields for documentation?

(n=69)



■ yes ■ no

ROADMAP
ON CARCINOGENS

Challenge 2.2

Dissemination pathways of the multipliers of the EMKG

Investigations

- Who distributes the EMKG? How does it reach SME?

Multipliers are:

- **Inspectors**
- **Lecturers, tutors, teachers**
in training and further education programmes
- **Consultants and speakers**
- **Creators of teaching material**
- **Developers of software solutions**
- **Authors**
Guidance for the employer, brochures and magazines
- **Chambers of industry, commerce and trade**
- **Auditors**

Aim

Foster distribution of the EMKG by multipliers

➤ **Concept for multipliers**

Summary

- **The SDS is the most important source of information for the risk assessment!**
- **However, adaptation to the actual workplace is always necessary**
- **EMKG is designed to help especially SME with their risk assessment**
 - CGS are a useful instrument for communicating concrete measures, but also need to be adaptable to the actual workplace
 - When developing tools, keep the multipliers in mind

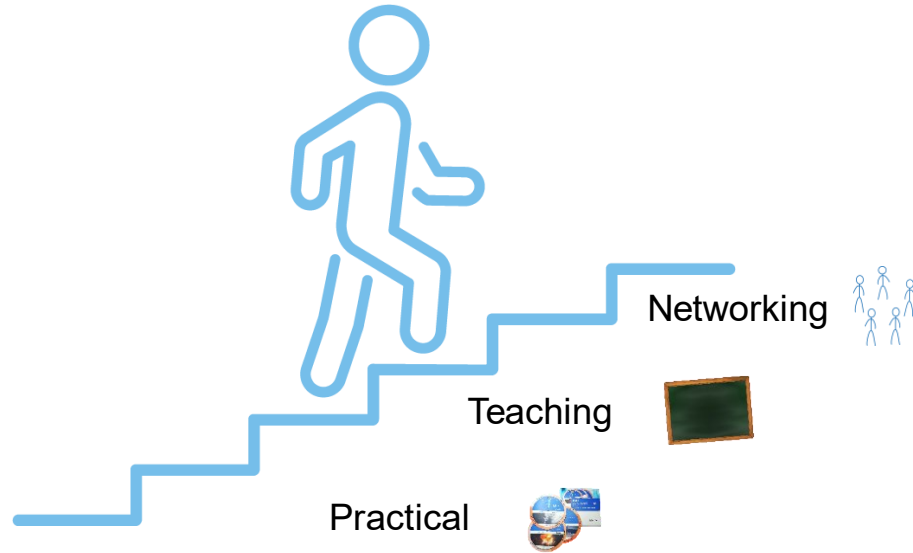


Thank you for your attention!



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All Icons by Marie Binning