

Metals and metal compounds - Introduction

- **On the PRO:** Metals and metal compounds are part of daily life (solar panels, smartphones, automotive) and they can be recycled (benefits for circular economy, sustainability, resource efficiency)
- **On the CON:** Many metal compounds are Carc. Cat. 1A/1B and usually risks occur in occupational settings during production and processing (welding, cutting, etc.)
- That was our start where we asked three key questions

Metals and metal compounds - Key questions

- Why is it important to regulate metals strictly? Is substitution really not possible?
- Where are the practical difficulties associated with the very low assessment values for metals and metal compounds?
- In one preamble of REACH is stated that the internal market should be free of substances of high concern - can this fully apply to metals?

Why is it important to regulate metals strictly? Is substitution really not possible?

Substitution:

- Metals are elements and sometimes even essential for human bodies, elimination is not possible
- Need for strict regulation of carcinogenic metals is obvious
- In some cases substitution is possible, in some cases not. A balanced assessment is needed.
- Difficult assessment in light of functional aspects; product level/specification often is hampering substitution
- Regrettable substitution is an issue, often risk information on alternatives is not available
- Surface treatment: CrVI alternatives are also classified nowadays (Ni compounds, Co compounds)
- OSH focus on substitution is part of CAD and CMD but often not used stringent for a push to substitution
- Regulatory pressure (like authorization) is a driver for substitution but invest in research is more important
- Hierarchy of control need to be respected

Why is it important to regulate metals strictly? Is substitution really not possible?

Scientific aspects:

- Metals classification and OELs: Discrimination/evaluation of metals and metal compounds is important.
- Grouping can be done by taking into account mode of action information. Experimental data are needed for potency evaluations.
- Non-carcinogenic effects need to be taken into account as well, this may take care of part or all of the cancer risk.

Capacities:

- Some more capacities at RAC are potentially available for OEL discussions, but:
- Time is a limiting factor for consultations with experts and public. Process must be transparent and clear (each substances assessment takes 18 months, even 5 assessments a year is hardly manageable)

Others:

- Biomonitoring limit values should be comparable to air limit values and ensure safe use.
- Renewed focus on enforcement is needed.

Where are the practical difficulties associated with the very low assessment values for metals and metal compounds?

Feasibility:

- Feasibility is a very important aspect, managing existing risks is key.
- Large companies are able to comply, difficulties occur much more at SME level.
- Containment is only in certain areas a solution. E.g. for metal production containment is not possible.

Action plans:

- When complying with OEL at certain areas is challenging action plans are needed
- Guidance on organisational measures and technical procedures at workplaces can help to reduce exposures. MS can benefit from measure in DE (TRGS) and NL
- Exposure levels need to continue to decline, strong need to transparently communicate the remaining risks of carcinogens to workers
- Step by Step regulation is more useful than a very low OEL alone.

Where are the practical difficulties associated with the very low assessment values for metals and metal compounds?

Risk-based approach:

- All in all: A risk-based approach is needed, not only for metals
- Risk based OELs is a much better starting point than technically based OELs
- Future BOELVs need to have ERR in order to compare the risks. More discussion on implementation of risk level(s) is needed.

Measurability:

- Agreement that at certain levels OELs cannot be measured (like for several German acceptable risk values)
- Conflicting views:
 - *Having no method to measure is no reason not to lower an OEL*
 - *Standards urge to use measurement methods that are able to determine 1/10 of the OEL level*

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Market effects:

- Removing hazardous metals from the market is difficult, they are often critical raw materials: for them there should be no unacceptable risk
- Both intrinsic properties and exposure have to be taken into account to assess the real occurring risks
- Risks are occurring mainly in the production area and user risks are usually low: OSH plays the central role to manage the risks!
- Assessment of potential actions (RMOA) is a must, coordination of the engaged parties is key!

Recycling:

- Definition needed what is meant by „concern“
- Recycling of metals is an essential part of a sustainable future
- Information on substances of concern may be delivered by the SCIP database