

Rapid removal concept from the metal industry as of February 2019

(DK comment)

Overall:

Classification system should be **simple** and is based on **hazard assessment, i.e. intrinsic properties**

Basically, this **proposal has not changed** since the workshop in February 2012, i.e. it involves binding to particles in the water, settling of the particles and binding in the sediment

This proposal is:

Complicated, intransparent, risk based

Unnecessary: T/D testing fully takes account of rapid removal of soluble forms from the water column.

Example: T/D – iron

Rapid removal of soluble forms → No classification (both for acute and chronic)

Rapid degradation of organics → Less strict chronic classification (acute not affected)

The highly likely, very reasonable **worst-case scenario: No sedimentation and no sediment** apart from coarse sand and gravel

Close to 100% of rivers and streams in mountain areas exhibit substantial stretches with no sedimentation and no sediment apart from coarse sand and gravel. These freshwater ecosystems are further among the most vulnerable and often have sensitive and rare species.

Mining areas are often in mountains.

Detailed:

1. Whirling up the sediment-water system:

Creates an unlikely extremely high concentration of SPM, i.e. an **unlikely, best case scenario** for binding to particles in the water column

Binding to SPM is highly dependent on:

Chemical composition of the particles and on

Concentration of SPM in the water column

That is **non-intrinsic properties**

2. 28 days unstirred for settling of particles:
Settling rate depends on degree of turbulence, and
Depth of water column
i.e. **non-intrinsic properties**
→ **Unlikely, best case scenario for settling of particles**
as turbulence is the normal situation and lake depth is in tens of meters
3. **Binding of organic substances to particles** in the water column and subsequent settling on and binding in the sediment was not accepted and
Evaporation of organics from the water surface
Were **not accepted because they depend on the depth** of the water body
i.e. **non-intrinsic properties**
4. **70% removal** of soluble forms is not at all equivalent to the 70% removal of DOC in the “DOC Die-Away” OECD test (301 A on ready biodegradability), because the last about 30% are built into the microbial biomass. **70% removal of DOC in test 301 A thus corresponds to close to 100% removal** of an organic substance.
5. **Binding in the sediment** is highly dependent on several factors, the most important of which are the concentration of organic carbon and the concentration of sulphides

i.e. **non-intrinsic properties**
6. Ecotoxicity tests **deal only with organisms in the water column**, and so processes in other compartments (i.e. sediment) are not relevant.
7. Accepting industry’s Rapid Removal concept **will result in a Domino reaction** with industries involved in production and trade of different kinds of organic substances demanding that binding to particles and settling and binding in sediment should also be considered when classifying their substances.
This will **hamper the whole classification and labelling system**.