

These are examples of chemical parameters that may be needed to know the behavior and distribution of a chemical in the environment

Data on the chemical

- Molecular weight
- Molecular structure
- Water solubility
- Vapor pressure (20°C)
- Density (20°C)
- Octanol-water partition coefficient (K_{ow})
- Biodegradability
- Eco-toxicity

Site specific data (refer to the mining case study)

- Concentration of chemical in tailings water
- Adsorption onto tailings in the tailings water
- Water mass balance for the ponds including total and useable volume, water losses to fill the pores beneath the ponds and filtration losses that percolate through the embankment into the drainage ditch.
- Hydrological conductivity of the old tailings and the soil beneath the ponds. The hydrological conductivity of a certain type of soil is a measure of how fast water can percolate through the soil.
- Width, depth and minimum flow rate of the river
- Position of the outlet of tailings water into the river