



## Guide for sample handling – Metals

### Metals in water

Sample volume: 100 ml. Samples for natural waters should be taken in acid-cleaned bottles. Other samples are taken in non acid-cleaned bottles. If only dissolved metals are to be analyzed, the sample should be filtered through a 0.45 µm filter directly in the field. Contact the laboratory for recommendations regarding filter quality. Water samples shall not be filtered in cases where particle-bound metals are to be included in the analysis.

The sample should be sent to the laboratory as soon as possible after sampling. Due to the risk of contamination we generally recommend that the sample is sent without prior preservation. If the sample is preserved outside the laboratory, nitric acid of high purity ("Suprapur" or equivalent, 1 ml per 100 ml of sample) shall be used. No other acids are allowed as preservatives. Note that if the sample is filtered, the acidification shall be done after filtration.

When taking the sample, skin care products such as hand lotion should be avoided since such products often contain high concentrations e.g. of Zn. Preferably plastic gloves should be used in order to avoid contamination.

### Metals in sediment and soil

The recommended sample amount is 25 g, and the minimum amount is 1 g of dry matter. With respect to avoiding contamination, sampling of sediment and soil is easier than water sampling. Normally the sample for metal determination can simply be transferred to a plastic jar or bag. Do not let metal equipment get into direct contact with the sample.

### Metals in ash

Sample amount for fly ash: 25 g. Bottom ash can be very inhomogeneous for which reason a larger sample amount (500 g) is normally required. A subsample for analysis can then be taken following homogenization. Transfer the sample to a plastic jar or bag.

### Metals in biological material

The recommended sample amount is 25 g, and the minimum amount is 1 g of dry matter. Avoid using metal scissors or knives when taking the sample. The sample is transferred to a plastic bag or jar. Regarding fish, please contact the laboratory.

### General instructions

Always deliver an order form listing all the names with which the samples in the batch are marked, and including all other information that may be important for sample handling and analysis in the laboratory. Mark the samples with suitable labels or in waterproof writing with a marker pen. Suitable sample containers, labels, and order forms can be ordered from the laboratory. Also give quotation number, when applicable, in order to prevent errors in invoicing.

### Other sample types

Please contact the laboratory for sample types not discussed here, e.g. fish, pulp, rocks, industrial products, etc.