

Suggestions for Sampling and Shipping (2016-05-16)

Ultrapure Waters (UPW)

- Use borosilicate glassware, i.e. Schott 1L flasks with GL45 Teflon-lined closures in red or white color, **do not use blue PP caps.**
- Soak flasks and closures in a UPW or lab water bath for at least 3 days in the dark. As desorption of potentially present organic contaminants decreases rapidly with time this “3-days-soak” will give enough confidence for organic-free surfaces. Close full – or rinsed - flasks for several days in the dark until the date of sampling. Flasks and closures are still wet inside and outside. For outside drying you may use ambient air or in a heating cabinet. **The flasks are still wet inside and we tolerate this! Any drying process may contaminate the flask.**
- **For labeling of flasks do not use felt pens.** Label flasks with adhesives or tape containing all necessary information.
- On the day of sampling the sampling person must not wear perfumes, hair conditioners, creams etc.
- **Sampling person must not speak, sneeze or cough during sampling!**
- Sampling at site: Before you open the flask think where to put the closure upside-down! Do not touch dispenser ring or glass thread. Fill flask 2 times with about 30% sample volume, close, shake and discard. Rinse and the start sampling, **try to hold breath!** Allow some air space and close flask.

Raw Waters, Pre-Treatment and Demineralised waters > 50 ppb TOC

This is less critical, minimum sample volume is 50 mL only. Glass or plastic (PP, PE, PET) flasks can be used, but closures should not be lined with rubber or polyurethane foam. If you are not sure whether flasks are clean you may adopt the same soaking routine described above. For sampling the same precautions described above are recommended.

CONVENIENT ARE AT SITE AVAILABLE 500 ML PET BOTTLES FILLED WITH MINERAL WATER.

Sample Preservation

Generally organics are stable at ambient temperatures and do not alter during transport. Therefore do not treat samples in any way. The only threat is microbial degradation and this is the reason why samples are sometimes shipped in insulated boxes with cooling devices (cooling devices alone are useless). Technical waters, including waters from pre-treatment and town waters are usually low in bacterial activity and organics remain more or less unaltered for the first few days.

Only for waste waters before biodegradation and waters subjected to an oxidation step (ozone, chlorine) we recommend pasteurization of CLOSED FLASKS at 60° C to 80° C for at least 30 min and up to 2 hours. A hot water bath (“tea kettle”) with temperature indicator can be used at site.

Packaging

Glass flasks must be wrapped and taped with a soft material (minimum thickness: 50mL: 0.5cm; 100mL:1cm, 500mL: 5cm!).

Shipping

We recommend international couriers (FedEx, TNT, UPS). For customs, declare goods as **“Deionized technical waters for analysis of no commercial value”** (Customs Tariff number 28530010). Drinking waters may be classified as food stuff and this may cause trouble at customs and health authorities.

The commercial value of shipment should be below 10 €, otherwise TAX may be imposed. For most industrial countries samples arrive in our lab within 2 days. Do not mark a specific time of delivery – this will be expensive and is not necessary; delivery is usually in the morning.

Shipping Address:

Recipient: DOC-LABOR Dr. Huber
Street/#: Eisenbahnstr / 6
ZIP/Town: 76229 / Karlsruhe
Country: Germany