



Dissolved Sulfide Sample Collection and Preservation

To measure dissolved sulfide, insoluble matter in the sample must first be removed. This is accomplished by producing an aluminum hydroxide floc. The flocculent is allowed to settle and the supernatant decanted off and preserved with zinc acetate and sodium hydroxide.

Supplies

| <i>Quantity</i> | <i>Item</i> |
|-----------------|--|
| 1 per sample | 250 mL amber bottle containing 0.5 mL (10 drops) 6N sodium hydroxide |
| 2 per sample | 40 mL vials, each containing 0.1 mL (2 drops) 2N zinc acetate and 0.1 mL (2 drops) 6N sodium hydroxide |
| 2 | eye droppers |
| 1 | Container of aluminum chloride. Enough has been sent to allow for the addition of 10 drops (0.5 mL) to each 250 mL sample. |

Procedure

- 1.0 Collect the sample in the 250 mL amber bottle containing the sodium hydroxide. Completely fill the bottle (must be enough sample so when capped it is headspace free).
- 2.0 Immediately add 10 drops of the aluminum chloride solution, cap, and mix by holding the bottle in an upright position and rotating your wrist back and forth for 1 minute.
- 3.0 Allow the sample to settle for 5 to 15 minutes (long enough to allow the flocculent to settle to the bottom of the bottle but not longer than 15 minutes). Wait only as long as necessary to collect 80 mL of supernatant.
- 4.0 Carefully decant the supernatant into the (2) 40 mL vials containing the zinc acetate and sodium hydroxide. Completely fill the vials with sample so they are headspace free.
- 5.0 The sample remaining in the 250 mL amber bottle is caustic. Please return the partially filled bottle to TriMatrix for disposal.

If you have any questions on the treatment procedures described below, please contact your project chemist at 1-616-975-4500.