DAT Facts™

Cyanide – CTM-033 (XHCN) - CAS 74-90-8 - MDL 12 ug/cu-m

Method CTM-033 is applicable to the collection and analysis of HCN in the gas phase and in suspended water droplets, see (**www.epa.gov/ttnemc01/tmethods.hmtl**)

Isokinetic Sampling

The source is sampled using four 500 ml impingers. The first two impingers are the modified Greenburg-Smith with a standard tip. The last two impingers are modified GS design (see method). Typically, the first two impingers will be filled with 100 ml 0.1 N sodium hydroxide. The third will be empty and the fourth filled 2/3 full with desiccant.

Where known levels of **sulfides** are present (H_2S > 50 ppm), an acidified lead acetate solution is placed in the first impinger followed by an empty impinger followed by two NaOH impingers followed by a fifth desiccant impinger.

Low Flow Sampling

Midget impingers may be used in place of the large GS impingers. Interferences are the same, especially when sampling landfill gasses, where H_2S may be present at % levels. Flow rates should not exceed 0.5 L/min. Generally follow TO-5 for sampling.

If **Acid gasses** such as CO2 are present, precautions should be made to ensure that the NaOH train does not become neutralized.

Recovery: The sampling train is recovered in three fractions (four if the lead acetate impinger is added, see section 8.7.

Shipment: Ship to DAT chilled, upright on ice. The samples are stable in basic solution for up to 4 months. The samples should be analyzed within 30 days.

Analysis: The analysis consists of the ion chromatographic analysis of the impinger contents. The final impinger volumes are measured in the laboratory. The results are reported as ug total per impinger.