

## APPLICATION

### Testing the toxicity of a cleaning agent

#### METHOD

A seed culture from a full-scale anaerobic digester was placed in a number of 200 mL respirometer vessels. A synthetic wastewater having a 20,000 mg COD/L in a nutrient/ mineral/buffer solution was fed daily to each reaction vessel -- along with various amounts of the cleaning agent. The reactors were operated for a four day test period with measurement of gas production using a CHALLENGE ANR-200 anaerobic respirometer.

#### ANALYSIS

The first dose of waste plus cleaning agent showed evidence of toxicity at 200 to 500 mg/L of the cleaning agent as indicated by the lower gas production rate. Subsequent doses showed progressively greater toxic effects, thereby indicating that the cleaning agent accumulated in the reactors. The cleaning agent was thus considered to be toxic to the anaerobic process when added in single-dose concentrations above 200 mg/L and in smaller doses that would cause the cumulative amount of cleaning agent to exceed 200 mg/L.

