

Samples were taken from three feedchemical storage areas, FS1, FS2, and FS3, reaction vessel RV, auxiliary feedline AF leading to RV, two product storage areas PS1 and PS2, organic waste storage tank WS1, and hydrolyzed waste storage tank WS2. Samples were also taken of the charcoal from a respirator canister RC that had been used by an employee at the facility.

Approximately 100 mg of each liquid sample (FS1, FS2, FS3, PS1, PS2, and RV) was absorbed onto a clean cotton bud. Wipe samples of a whitish residue in AF was collected using cotton buds "wetted" with isopropanol. Three types of samples were collected from WS1: samples of liquid on a cotton bud WS1C, samples of liquid on XAD-2 resin WS1X, and headspace samples of vapor on Tenax-TA WS1T. Samples of the waste liquid from WS2 were collected.

Thus each laboratory was supplied with twelve different samples from each inspected facility, and duplicates of other samples than WS1T for which three samples were available. In addition, blanks of each sample matrix was provided.

Composition of the samples

The samples were prepared from either "commercial" or "laboratory grade" chemicals. Dichlorvos and octyl methylphosphonofluoridate and their respective by-products and degradation products were prepared in the laboratory. No attempt was made to accurately weigh a set amount of each sample into the sample tubes. In general, the cotton bud tubes contained slightly more than 100 mg of sample.

FS1: trimethyl phosphite (97%) containing traces of dimethyl phosphite (1%), dimethyl methylphosphonate (1%), and trimethyl phosphate (1%).

FS2: chloral (97%).

FS3: toluene (containing traces of xylenes).

AF: sodium fluoride, iso-octyl alcohol—a commercial product of closely related isomeric branched chain primary alcohols, including 3,4-dimethyl-1-hexanol (20%), 3,5-dimethyl-1-hexanol (30%), and 4,5-dimethyl-1-hexanol (30%).