

AN INVESTIGATION INTO SAFE DISPOSAL OF PHOSPHINE GENERATING FORMULATIONS

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Recommended methods for disposal of phosphine formulations require either immersion, combustion or burial, all of which can pose safety hazards to operators. Although burial has been recommended no clear operating procedures have been defined. This evaluation examined the efficacy and occupational safety associated with burial of blanket and tablet/pellet phosphine generating formulations, unspent and spent, at two depths in soil. Phosphine generated by the buried formulations was monitored within, and immediately above, the burial site while phosphine levels remained above the 0.3 ppm Threshold Limit Value.

Residual unreacted phosphide in the buried formulations was determined at the end of the investigation. Soil type and conditions were recorded. Worker safety implications of the results obtained from this work are discussed.