Title VapomateTM: a non-flammable ethyl formate/liquid carbon dioxide fumigant mixture.

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Abstract

Ignition tests were conducted on a range of mixtures of ethyl formate, carbon dioxide and air to determine the limits of flammability for ethyl formate. A maximum of 15% v/v of ethyl formate vapour in carbon dioxide gas was inert in all proportions with air. A safe maximum rate of 12.5% v/v is recommended based on literature and experimental values for the lower explosiveness limit of ethyl formate.