

**DIRECT INITIATION OF DETONATION IN UNCONFINED ETHYLENE-AIR MIXTURES
- INFLUENCE OF BAG SIZE**

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The results of a series of field tests performed to determine the critical energy required for initiation of detonation in ethylene-air mixtures are described and discussed, with particular emphasis on the influence of the bag size on the initiation and propagation of detonation. The tests were performed in a plastic bag 10 m long with a cross-sectional area of 1.83 m x 1.83 m using discs of Datacheet explosive as initiator charges at one end of the bag.