SULFURYL FLUORIDE TO CONTROL STORED PRODUCT PEST INSECTS

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Abstract
Sulfuryl fluoride (SO_2F_2) is a pesticidal fumigant currently applied for the control of termites and wood-infesting beetles. The efficacy against species of stored product insect pests was studied. Each insect sample was exposed for 24, 48 or 72 hours to concentrations ranging from 11.7 g/m³ to 35 g/m³.

Complete control of adults of all tested species and of all larval stadia and of pupa of *Sitophilus granarius*, *Tribolium confusum* and *Tenebrio molitor* was achieved at 13 g/m³ within a 24 h exposure period. Some individuals of *Stegobium paniceum* and *Trogoderma versicolor* continued development to the adult stadium, but no reproduction occurred. *Oryzaephilus surinamensis* survived and reproduced at 18.6 g/m³ for all tested fumigation times. *Plodia interpunctella* survived and reproduced at 18.2 g/m³ within 24 and 48 h exposure times. *Sitophilus granarius* and *Ephestia kuehniella* produced progeny within six weeks after fumigation for 24 h with 26.5 g/m³ and 23.5 g/m³, respectively. Complete control of eggs of *Sitophilus granarius* was achieved at 35 g/m³ within a 24 h exposure time. Recent further results are presented.