PROPYLENE OXIDE, A REGISTERED FUMIGANT, A PROVEN INSECTICIDE

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Pesticides, are they all bad? Are they and their by-products all highly toxic? Are they all persistent in the human body and in the environment? Propylene Oxide is outside of this popular perception.

Propylene Oxide is a very versatile chemical, with many safe and large volume uses, including food emulsifiers, surfactants, starch modifiers, urethane foams, cosmetics, polymers and of course propylene glycol. Propylene glycol is a (GRAS) food additive and the basis for the non toxic Sierra antifreeze. Over 10 billion lbs are produced annually in highly automated and analytically controlled facilities. The production of Propylene Oxide is not likely to be discontinued. It is not an ozone depleter and it is environmentally benign.

One of these safe uses is food sterilization. Since 1958, Propylene Oxide is the only FDA/EPA authorized sterilant for reducing bacteria, mold and yeast in nutmeats and cocoa powder. It is also used to sterilize spices and has been used as an insecticidal fumigant in the past.

Present FDA and U.S. EPA regulations pertaining to Propylene Oxide:
Propylene Oxide for food fumigation is regulated by CFR 40 part 185.15. It establishes a residue tolerance of 300ppm for nutmeats, cocoa powder and spices.

Properties of Propylene Oxide

Equipment and procedures for food sterilization.

Fumigation studies of stored products insects.

Utilization of mixtures of PPO and inert gases.

Equipment and procedures for insect fumigation.

Relationship to Aflotoxin formation.

Pending research.

Comparison with other MB replacement candidates.

ABERCO, INC. an invitation to explore new applications and ideas.