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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Establish Tolerances for Carbon Disulfide from Treatment with Sodium Tetrathiocarbonate in or on Almond Nutmeat, Almond Hulls, Peaches and Plums (fresh prunes)

FROM: Luis Suguiyama, Chief *Luis Suguiyama*  
Fungicide Branch  
Registration Division (7505C)

TO: James J. Jones, Acting Director  
Registration Division (7505C)

Entek Corporation (PP 5F4482) requested that EPA establish tolerances for residues of the nematocide, insecticide, and fungicide, carbon disulfide, in or on the food commodities almond nutmeat, almond hulls, peaches and plums (fresh prunes) at 0.1 parts per million (ppm) from the application of sodium tetrathiocarbonate.

Sodium tetrathiocarbonate stoichiometrically converts to carbon disulfide, sodium hydroxide, hydrogen sulfide and sulfur in the soil after application to the RACs. Carbon disulfide is the pesticide active compound. The tolerances for carbon disulfide are established at the analytical level of quantification. Carbon disulfide is a naturally occurring compound found in almonds, peaches, plums, grapes, and citrus at 5 to 20 ppb and up to 1 - 73 ppm in Shiitake mushrooms. Residues of carbon disulfide in treated crops are not expected to be appreciably different from background levels. Therefore, the standard risk assessment approach of using the Reference Dose (RfD) based on systemic toxicity is not relevant.

Risk Characterization and Analysis Branch, Toxicology Branch II, and Office of General Counsel have reviewed this rule. OGC has raised the concern that the Agency has not determined that carbon disulfide is safe. To make this safety determination the Agency would have to require a complete toxicity data base for carbon disulfide. However, requiring this testing may be unnecessary since the consumers are currently exposed to carbon disulfide when they eat almonds, peaches and plums without treatment with Enzone. Therefore, registering Enzone for these uses would not appreciably increase exposure to carbon disulfide.

I recommend that you concur with this document which establishes these tolerances for carbon disulfide from the application of sodium tetrathiocarbonate.

Attachment