MEMORANDUM

TO: Chloropicrin Reregistration Eligibility Decision (RED) Team

FROM: Nathan Mottl, Reregistration Branch 1
Special Review and Reregistration Division

SUBJECT: Revised Use Closure Memorandum for Chloropicrin, Chemical No. 081501

DATE: June 6, 2005

As a result of the December 7, 2000 Smart Meeting on chloropicrin uses and the update meeting held on June 29, 2004, this memorandum will act as the Agency’s record of common understanding on the uses of chloropicrin to be included in the risk assessment. This memo revises the original use closure memo written by Kelly White on March 9, 2005 after the Agency received use pattern comments from the Chloropicrin Manufacturers Task Force (CMTF) on April 22, 2005.

Chloropicrin is used as an insecticide, nematicide, fungicide, and herbicide. Chloropicrin is phytotoxic, and is used to sterilize soil prior to planting. It is applied as a fumigant and can be applied alone, with methyl bromide, or with Telone (e.g., 1,3-Dichloropropene). Chloropicrin is registered for pre-plant soil fumigation of land to be planted with a wide variety of food, ornamental, and nursery crops. Chloropicrin uses are also being supported for the in-situ treatment of wooden utility poles, piles and timber members. The major use is for utility poles; however, railroad structures are often treated with chloropicrin as well.

There are no food uses of chloropicrin. All post-harvest food storage area uses have been cancelled and the associated tolerances are being revoked. Chloropicrin is registered for use as a warning agent in methyl bromide formulations for treating empty grain storage bins, but this use is a non-food use that does not require a tolerance.

The Chloropicrin Manufacturers Task Force (CMTF) is comprised of the four companies that produce technical chloropicrin – Niklor Chemicals, Inc., Arvesta Corporation, ASHTA Chemicals, Inc., and Trinity Manufacturing, Inc. Steptoe & Johnson L.L.P. represents the CMTF. Other chloropicrin registrants include: Tri-Cal Chemicals, Great Lakes Chemical, Osmose Railroad Services, Inc., Osmose Utility Services, Inc., Albemarle Corporation, Soil Chemical Corporation, Ameribrom Inc., Hendrix and Dail Inc., Reddick Fumigants, Inc., Shadow Mountain Products
Corporation, Holtrachem, and Dow AgroSciences LLC. There are 60 products total – 6 technical formulations and 54 end-use products.

USES

Chloropicrin is registered as a pre-plant soil fumigant for land to be planted with the following crops:

- **Berries**: Caneberries, blackberries, boysenberries, dewberries, loganberries, raspberries, youngberries, blueberries, cranberries, gooseberries, huckleberries.
- **Small fruits**: Strawberries, currants, grapes, kumquat, bananas, figs, persimmons, pineapple, pomegranates, tree fruits (all), vine fruits (all).
- **Citrus fruits**: Grapefruit, lemon, limes, oranges, tangelos, tangerines.
- **Nut crops**: Almonds, cashews, chestnuts, filberts, hickory nuts, pecans, walnuts, pistachios
- **Pome and stone fruits**: Apples, pears, quinces, apricots, cherries, nectarines, peaches, plums, prunes, dates.
- **Cucurbits**: Melons (all), cantaloupes, casaba melons, crenshaw melons, honeydew, muskmelons, persian melons, watermelon, cucumbers, pumpkins, squash (summer and winter), mango melons.
- **Vegetables**: asparagus, eggplant, peppers, pimentos, tomatoes, cole crops, broccoli, Brussels sprouts, cabbage, cauliflower, collards, kale, kohlrabi, endive, lettuce (all), mustard, spinach, Swiss chard, carrots, garlic, leeks, okra, onions, parsnips, potatoes, radishes, rutabagas, salsify, shallots, sweet potato, yams, popcorn, garden beets, celery, turnips, vegetables (all).
- **Field crops**: beans (all), peas (all), kenaf, forage-fodder grasses (all), pastures, alfalfa, clover, lespedeza, vetch, birdsfoot trefoil, barley, corn, oats, rye, sorghum, wheat, sugarcane, buckwheat, tobacco, safflower, cotton, flax, peanuts, soybeans, millet.
- **Ornamentals**: golf course turf, ornamental turf, forest trees (all), herbaceous plants (all), woody plants (all), flowering plants (all).
- **Miscellaneous**: Hops, horseradish, mint, olives, greenhouse soils, mushroom house soils.

Chloropicrin is used both as the sole active ingredient in chloropicrin end-use formulations and as an active ingredient in end-use formulations in which methyl bromide or Telone is also an active ingredient. In addition, chloropicrin is part of the end-use formulation for the iodomethane soil fumigant, which is undergoing registration review. Chloropicrin is also used as a warning agent with these soil fumigants at levels of two percent or less by weight in the formulation.

cc: Sara Beth Watson, Steptoe & Johnson L.L.P.