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

OFFICE OF PREVENTION,
PESTICIDES AND TOXIC SUBSTANCES

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MEMORANDUM

SUBJECT: EFGWB Data Requirements for the Registration of Methyl Anthranilate.

TO: Robert Forrest, PM 14
Registration Division (H7505C)

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This is to inform you that there are no Environmental Fate Data Requirements for the registration of methyl anthranilate. This compound has been classified as a biochemical pest control agent by the Biotechnology Workgroup. Under Subdivision M, Environmental Fate studies are Tier II studies, and are not invoked unless there are adverse effects observed in Tier I testing on fish and wildlife.

However, PMC Specialties Group submitted an unpublished draft copy of partial results of research on the degradation of methyl anthranilate by L. Clark of the USDA/APHIS. Clark found that methyl anthranilate did not hydrolyze at pH 5 and 7 at 25°C. At pH 9, minor (less than 10%) hydrolysis did occur. UV radiation (intensity not stated) degraded 44% of the parent compound in 456 hrs. Preparative TLC indicated at least three degradation products. Clark plans to identify the degradates by GC/MS, C¹³, and NMR analysis. Aerobic microbial metabolism reduced the amount of parent compound 12, 30, and 42%, after 7, 16, and 27 days,

respectively, when the solutions were illuminated. Aerobic microbial metabolism in the dark reduced methyl anthranilate levels by 22 and 100% in 9 and 20 days, respectively. This study provides very limited information which would be useful in assessing qualitatively and quantitatively the environmental fate of methyl anthranilate, or the production and fate of degradates in the environment.