

US EPA ARCHIVE DOCUMENT

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TASK 5. Development of Chemical/Physical Profile: Naled

Contract No. 68-01-5830

Final Report

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SUBMITTED TO:

Environmental Protection Agency
Arlington, Virginia 22202

SUBMITTED BY:

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Naled

1. Aqueous Degradation

In a buffer solution at 21 C, naled has half-lives of 25 hours, 16 hours, and 13 minutes at pH 5, 7, and 9, respectively. At 37 C, naled has half-lives of 6 hours, 4.5 hours, and 3 minutes at pH 5, 7, and 9, respectively. In sewage water taken from the secondary clarifier of a municipal sewage plant, naled has a half-life of 23 hours.

2. Soil Degradation

Naled residues in soil declined from 0.5 ppm in initial samples to <0.10 ppm in samples taken 4 days after application at 1 lb ai/A. The major degradation product of naled is 2,2-dichlorovinyl dimethyl phosphate (DDVP or dichlorvos).

3. Soil Mobility

No data are available on the soil mobility of naled.

4. Accumulation

Accumulation of naled residues in marine organisms is not a problem.

References:

1. EPA accession nos. 224602 and 224603
2. EPA registration file no. 1769-LR
3. Winterlin, W., C. Mourer, and J.B. Bailey. 1974. Degradation of four organophosphate insecticides in grape tissues. Pesticide Monitor. 8(1):59-65.