

US EPA ARCHIVE DOCUMENT

CASE 050023

NAPHTHALENE ACETIC ACID

20 100 11/23/79

CHEM 050002

1-naphthaleneacetic acid

BRANCH EES DISC 20 TOPIC 201010010

FORMULATION 00 - ACTIVE INGREDIENT

FICHE/MASTER ID 05007255

CONTENT CAT 01

Hilton, H.W.; Nomura, N. (1964) Phytotoxicity of herbicides as measured by root absorption. Weed Research 4(3):215-222.

SUBST. CLASS = 3.

OTHER SUBJECT DESCRIPTORS

SEC: EES -20-201024006

EES -20-201024007

DIRECT RVA TIME = 05 (MH) START-DATE 23 OCT 1980 END DATE 23 OCT 1980

REVIEWED BY: Robert W. Holst, Ph.D.

TITLE: Plant Physiologist

ORG: Sect. 1, Ecol. Eff. Br. HED OPP

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DATE: 23 OCT 1980

~~Robert W. Holst, Ph.D.~~

APPROVED BY: ~~Plant Physiologist~~

~~TITLE: Sect. 1, Ecol. Eff. Br. HED OPP~~

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Chemical: 1-Naphthaleneacetic acid

Citation: Hilton, H. W.; Nomura, N. (1964) Phytotoxicity of herbicides as measured by root absorption. Weed Research 4(3):216-222.

Reviewer: Robert W. Holst, Ph.D., Plant Physiologist
Ecological Effects Branch/Hazard Evaluation Division

Validation Date: 10/23/80

Test Title: Cucumber - young seedling - liquid media lethality study

Conclusion: The minimum lethal concentration for NAA was 98 ppb.

Validation: This study is scientifically sound.

Materials & Methods: Cucumber seeds were soaked and then planted in cotton plugs in flasks that contained Hoagland-Arnon nutrient solution. The chemical was added with fresh media when the first true leaf appeared. The extent of effect was measured after 11 days. Environmental conditions were: 300 ft-candles from daylight fluorescent for 12 hrs.; temperature 32-34C.

Results: Only the minimum lethal concentration was determined for cucumber seedlings. This was 5.25×10^{-6} molar (98.0 ppb).