DATA EVALUATION RECORD

CASE 850623
APHTHALENE ACETIC ACID

CHEM 850623
1-APHTHALENEACETIC ACID

BRANCH EEB

DISC 2: TOPIC 200115019

FORMULATION = ACTIVE INGREDIENT

FICHE/MASTER ID: 85067254
CONTENT CAT 01


SUBJ. CLASS = 3

OTHER SUBJECT DESCRIPTORS

PREP: EFF = 10-15

DIRECT RUN TIME = 0.7 LH


REVIEWED BY: Robert W. Holst, Ph.D.
TITLE: Plant Physiologist

LUC/TEL: Rm 807, 557-0320

SIGNATURE: [Signature]
DATE: 24 OCT 1980

APPROVED BY:

DATE:
Chemical: 1-Naphthaleneacetic acid


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

Validation Date: 10/24/80

Test Title: Pea-Root Growth

Conclusion: The effect is time and concentration related. Three times 10^{-7} M caused a 50% effect at 24 hrs. While with 1x10^{-6} M (.186 ppm), the effect is immediate.

Validation: This study is scientifically sound.
Materials and Methods: Pea roots or portions of the roots were soaked in various concentrations of NAA for varying lengths of time up to 48 hours. Only pea seedlings were used.

Results: Root growth was inhibited 50% or more with 50 ppm of NAA applied at the hypocotyl however growth recovered within 48 hrs. Lesser concentrations inhibited growth but only 10 (0.5 ppm) to 30% (5 ppm). Where the roots were growing in various concentration (3x10^{-7}M to 3x10^{-6}M), the number of roots was reduced to 30% and the 50% inhibition of root growth was 3x10^{-7}M at 24 hrs., and immediately with 1x10^{-6}M.