

US EPA ARCHIVE DOCUMENT

CASE GS0121 COPPER SULFATES PM 03/28/83

CHEM 024401 COPPER SULFATE

BRANCH EEB DISC 40 TOPIC 05054543

FORMULATION 03 - DUST (D)

FICHE/MASTER ID 00099395 CONTENT CAT 01

Pitcher, F. (1974) CUZN Dust No. 20: Rainbow Trout (Salmo gairdneri): Test No. 720. (U.S. Environmental Protection Agency, Pesticides Regulation Div., Animals Biology Laboratory; Unpublished Study; CDL:131580-A)

SUBST. CLASS = S.

DIRECT RWV TIME = 1.0 (MH) START-DATE END DATE

REVIEWED BY: Miachel Rexrode
TITLE: Fishery Biologist
ORG: EEB - HED (TS-769)
LOC/TEL:

SIGNATURE: DATE: 1-16-85

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

DATA EVALUATION RECORD

1. Chemical: CUZN Dust No. 20
2. Test Material: Copper expressed as elements: 3.8%
3. Study Type: Rainbow Trout Acute LC₅₀
4. Study ID: Pitcher, F. 1974. CUZN Dust No. 20:
Rainbow Trout: Test No. 720. (U.S.
Environmental Protection Agency,
Pesticide Regulation Division).
5. Reviewed by: Miachel Rexrode Signature:
Fisher Biologist
HED/EEB Date: 1-16-85
6. Approved by: Henry C. Craven
Section Head
HED/EEB
7. Conclusions:

This test appears to be scientifically sound, but will not support Registration. Testing on this formulation indicated that CUZN Dust No. 20 was slightly toxic (LC₅₀ = 7.2 ppm) to rainbow trout.

8. Materials and Methods:

Test organisms (rainbow trout) were obtained from Wytheville National Fish Hatchery and average 1.8 mm in length and .67 g in weight. Test vessels 5-gallon glass jars with a water volume of 15 liters. Ten fish were allocated per vessel and test concentration. Water chemistry parameters were measured and listed as follows: Temperature: 55°F; Alkalinity: 41.04 ppm; Calcium hardness: 17.1 ppm; pH; 7.0; Total hardness: 51.3 ppm; Dissolved O₂: 7.6 ppm. Concentration levels and mortality are listed in Table 1.

TABLE 1. Concentration Level and Mortality of Rainbow Trout to CUZN Dust No. 20.

<u>Concentration (ppm)</u>	<u>Mortality</u>	
	<u>48 hrs.</u>	<u>96 hrs.</u>
14	10/10	10/10
8.7	6/10	8/10
5.6	0	2/10
3.7	0	0

9. Results:

CUZN Dust No. 20 can be expected to kill rainbow trout at a concentration of 8.4 ppm within 24 hours of exposure. The 96-hour LC₅₀ = 7.2 ppm.

10. Reviewer's Interpretation and Comments:

This test appears to be scientifically sound but will not support Registration. Testing was conducted on a 3.8% copper.

Category: supplemental