1/29/93

MEMORANDUM:

Subject: EPA File Symbol/EPA Reg. No.:55146-AU

From: Lucy D. Markarian, Biologist 1/29/92
Precautionary Review Section
Registration Support Branch
Registration Division (H7505C)

To: Cynthia Giles-Parker/James Stone, PM 22
Fungicide-Herbicide Branch
Registration Division (H7505C)

Thru: Thomas C. Ellwanger, Section Head
Precautionary Review Section
Registration Support Branch
Registration Division (H7505C)

E 1/29/93

Applicant: Agtrol Chemical Products
7324 Southwest Freeway
Suite 1800
Houston, Texas 77074

FORMULATION FROM LABEL:

Active Ingredient(s):	% by wt.
Copper Hydroxide	37.5 %
(metallic copper equivalent 24.4 %)	
Inert Ingredient(s):	
.....	62.5 %
Total:	100.0 %

FIFRA

CONFIDENTIAL BUSINESS INFORMATION
DOES NOT CONTAIN NATIONAL
SECURITY INFORMATION (E.O. 12356)

BACKGROUND

Agtrol Chemical has submitted an eye study to support a change in the signal word of the product Champ Plus under EPA symbol 55146-AU. It is claimed that this test was conducted with the revised formulation for the intended registration, and the change from the signal word DANGER to CAUTION can thus be supported. It is also claimed that with the new eye irritation study that changes the signal word, the subject product would be substantially similar to another one of their products, Champ Flowable, registered under 55146-41. The PM team has indicated that the subject product was found to be not similar to the registered product (55146-41) by the similarity clinic. The applicant was informed of this and studies other than the eye test were requested.

RECOMMENDATION

The CFS s of the subject product and the cited product under 55146-41 were restudied. The present conclusion is in full agreement with that of the similarity clinic. The two products are not substantially similar. Although they both contain copper hydroxide as active ingredient, the percentages of the active ingredients are substantially different, 23 % versus 37.5 % for the subject product and the new product contains different inerts. The conclusion was not based on the difference of signal words. The similarity of signal words, as proposed by the registrant, cannot make the two products substantially similar.

The submitted test is conducted with ACP Copper Hydroxide Flowable 6 lb to the gallon and is apparently not the same product for which registration is sought. The subject product is called Champ Plus and has 12.3 lb to the gallon. E
Although the submitted test is guideline data, it is not applicable to the registration of Champ Plus under 55146-AU UNLESS THE TEST MATERIAL IS IDENTIFIED CONCRETELY AS 55146-AU. E

PRS reiterates its position that a new set of tests supporting the registration must be presented with the exception of an eye study. The study submitted under MRID 420698-02 is a valid test for the registration.

The new formulation that the registrant has referred to (according to the new CSF and considered acceptable as of 8/31/92) has the same ingredients as the original formulation (submitted 8/30/91 and subsequently rejected 4/7/92) minus [redacted] It is apparently not the product tested for eye irritation under MRID 424706-01. E

It is generally known that [redacted] is an oxidizing agent and could possibly cause eye damage. However, it is not established that the opacity, observed at the initial test (MRID 420698-02) that persisted in two animals to day 21, can be attributed only to this ingredient. A very small amount of [redacted] was present in the original formulation. The p^H of the formulation remained the same after its removal (8.5 to 9.5). The

INERT INGREDIENT INFORMATION IS NOT INCLUDED

registration standard for copper hydroxide recommends the corrosive label for the manufacturing products due to eye and skin irritation and inhalation hazard potentials. Compounds other than the subject product with 37.5 % cupric oxide are in category I toxicity in eye irritation according to the data file at the Agency. In revising the formulation, only a very small quantity is taken away from the formulation, and there are other components in the product, such as [redacted] that in itself is a potential irritant, and was not removed. [redacted] is considered an eye irritant according to Sax's Dangerous Properties of Industrial Materials (eight edition,R. Lewis editor, Van Nostrand Rhinhold) as well as NIOSH publications.

The originally submitted eye irritation test is still considered valid and the signal word remains Danger.

LABELING

The full precautionary label will have to be recommended upon the presentation of the requested data.
At the present the signal word remains DANGER

The precautionary statement must include:

Corrosive. Causes irreversible eye damage. Do not get in eyes or on clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

The statement of practical treatment must include:

If in eyes	Flush eyes with a gentle steady stream of water for 15 minutes. Get medical attention.
If swallowed	Drink promptly a large quantity of milk, egg white or gelatin mixture, or if these are not available a large quantity of water. Avoid alcohol.

Note to Physician
Probable mucosal damage may contraindicate the use of gastric lavage.

Note to PM

Category I placement of the eye irritation potential hits the trigger for restricted use classification. The PM must decide if alternative labeling language can offset the need for restricted use classification.

DATA REVIEW FOR ACUTE EYE IRRITATION TESTING (§81-4)

Product Manager:22
MRID No.: 424706-01
Testing Laboratory:Stillmeadow, Inc.
Author(s):Janice O. Kuhn
Species:Rabbit, New Zealand White
Sex:one male and five females unwashed
Weight:not provided
Source:Ray Nichols Rabbitry
Dosage:0.1 ml
Test Material:ACP Copper Hydroxide Flowable, 6.0 lbs per gallon
Blue Viscous liquid
Quality Assurance (40 CFR §160.12):Included

Reviewer: L. Markarian
Report Date:8/28/92
Report No.:9287-92

Summary:

1. Toxicity Category:III

2. Classification:Guideline

Procedure (Deviations From §81-4):

Undiluted test material was instilled in the conjunctival sacs of six pre examined eyes. Three other eyes were tested but evaluated after irrigation. Washed eyes are not required for registration purposes.Evaluations were at 1, 24, 48, and 72 hours and days 4 and 7 according to Draize. Observations were confirmed with fluorescein at 24 hours.

Results:

Observations	(number "positive"/number tested)							
	Hour	Days						
	1	1	2	3	4	7	14	21
Cornea Opacity	0/6	0/6	0/6	0/6	0/6	0/6		
Stippling	1/6	2/6	2/6	1/6	0/6	0/6		
Iris	0/6	0/6	0/6	0/6	0/6	0/6		
Conjunctivae								
Redness	6/6	5/6	2/6	1/6	0/6	0/6		
Chemosis	0/6	2/6	0/6	0/6	0/6	0/6		
Discharge	5/6	0/6	0/6	0/6	0/6	0/6		

Comments:

Tox Chem No:023401 Copper Hyroxide Current Date 1/28/93
Laboratory: Stillmeadow, Inc.,12852 Park One Drive, Sugar land, Texas 77478

S T U D Y	M A T E R I A L	MRID NO	R E S U L T S	TOX CAT	CORE GRADE
Eye Irritation in Rabbits 9287-92 8/28/92	ACP copper Hydroxide Flowable 6.0 lb/gallon 8/13/92	424706-01	Clear within 7 days	III	Guideline