Date Out EFB: JUN 3 1980

To: Product Manager Jacoby (PM 21)
TS-767

From: Dr. Willa Garner
Chief, Review Section No. 1
Environmental Fate Branch

FILL OUT

Attached please find the environmental fate review of:

Reg./File No.: 21137-4, 0F2351, 0F2352, 0F2353

Chemical: triforine

Type Product: F

Product Name: Funginex

Company Name: EM Industries

Submission Purpose: Request for new food uses

ZBB Code: 3(c)7

ACTION CODE: 330 and 220 for petitions

Date in: 5/9/80

Date Completed: JUN 3 1980

EFB # 458, 459, 460, 461

Deferrals To:

_____ Ecological Effects Branch

_____ Residue Chemistry Branch

_____ Toxicology Branch

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Introduction. This submission contains proposed amended labels for 4 new uses of systemic fungicides containing triforine as the ai. Triforine-containing fungicides are currently registered for use on peaches and blueberries and for certain ornamental outdoor domestic and greenhouse uses. The proposed new uses are:

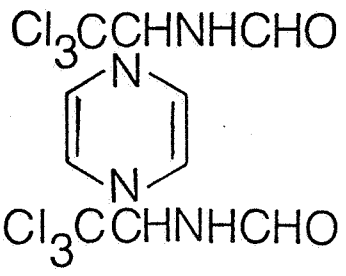
1) The use of Funginex EC (Reg. no. 21137-4; 1.6 lb ai/gal) on peaches, nectarines, apricots, cherries, plums, and prunes.

2) The use of Funginex WP (new product; 50% ai) as a post-harvest dip or spray on peaches, nectarines, apricots, cherries, and plums.

3) The use of Saprol (product tradename in Mexico where it is currently used; 17.8% ai EC) on tomaoes, peppers, eggplants, strawberries, melons, and cucumbers.

4) The use of Funginex EC on apples and almonds.

chemical. N,N'-[1,4-piperazinediylbis(2,2,2-trichloroethylidene)]bis [formamide]



triforine

past submissions. see triforine reviews dated 10/9/79, 7/6/78, 1/27/76, 9/4/75, and 8/19/75.

Directions for Use. Do not graze animals in treated orchards. Keep out of water.

Currently registered use rates on peaches and blueberries (ground or aerial spray):

	MAX. RATE (OZ AI/ACRE)	MAX. NO. APPLICATIONS	PHI (DAYS)
peaches	9.6	3	0
blueberries	4.8	5	0

Proposed use #1(ground spray):

Pre-Harvest Treatments (EMULSIFIABLE CONCENTRATE)

	OZ. AI/ ACRE	MAX. NO. APPLICATION	PHI (DAYS)
Stonefruit			
Peaches, Nectarines, Apricots (3 blossom, 3 pre-harvest applications)	7.2-12.8	6	0
Cherries, Plums, Prunes (3 blossom applications)	7.2-12.8	3	60

Proposed use #2:

Post-Harvest Treatments* (WETTABLE POWDER)

	OZ. AI/ 100 GALLONS	MAX. NO. APPLICATION
Stonefruit		
Peaches, Nectarines, Apricots Cherries, Plums	4.0	1

* Under usual agricultural practice, the last pre-harvest application would not be applied, if the fruit is to be post-harvestly treated. All stonefruit are thoroughly washed and in the case of peaches, defuzzed prior to post-harvest treatment.

Proposed use #3 (ground or aerial spray):

	OZ. AI/ ACRE	MAX. NO. APPLICATION	PHI (DAYS)
Fruiting Vegetables			
Tomatoes	3-4.5	3	0
Peppers	3-4.5	3	0
Eggplants	3-4.5	3	0
Small Fruit			
Strawberries	3	4	0
Curcurbits			
Melons	3-4.5	3	0
Cucumbers	3-4.5	3	0

Proposed use #4 (ground spray):

Blossom Applications (EMULSIFIABLE CONCENTRATE)

	OZ. AI/ ACRE	MAX. NO. APPLICATION	PHI (DAYS)
Pomefruit			
Apples (5 blossom applications)	8.0*	5	>120
Nut			
Almonds (1 blossom application)	7.2	1	>200

* "...or apply as a tank mix of 6 fl. oz. Funginex plus 1 pint of Glyodin per 100 gal of water."

Discussion of Data. No environmental fate data are contained in this submission. The following triforine data gaps are noted:

1) rotational crops - no studies submitted

2) soil adsorption/desorption - no studies submitted

Recommendations.

1) EFB recommends for conditional registration of Funginex EC for use on peaches, nectarines, apricots, cherries, plums, and prunes since no significant incremental risk to the environment is expected to be associated with this substantially similar use. We note however an apparent error in the Table on page 7 of that submission. Under the "OZ. AI/ACRE" column, the numbers should read 7.2-9.6 rather than 7.2-12.8.

2) EFB makes no recommendation on the conditional registration of Funginex WP for post-harvest treatment of peaches, nectarines, apricots, cherries, and plums since environmental fate issues are not associated with this use.

3) EFB does not recommend for the conditional registration of Saprol for use on tomatoes, peppers, eggplants, strawberries, melons, and cucumbers. The incremental risk to the environment associated with this new use pattern cannot be assessed since no rotational crop studies have been submitted to EFB.

4) EFB recommends for conditional registration of Funginex EC for the substantially similar use on apples and almonds provided the proposed label claim allowing a tank mix with glyodin be deleted. We do not have the tank mix data (soil dissipation studies) needed to assess any potential incremental risk to the environment related to possible alterations in the environmental fates of these actives when used together.

The information used for this review was our past reviews of triforine submissions.

Joe C. Reinert
Review Section I
EFB
HED

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