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United States
Environmental Protection
Agency

Prevention, Pesticides
And Toxic Substances
(7508W)

EPA 738-R-94-025
September 1994

Reregistration Eligibility Decision (RED)

M-CRESOL AND XYLENOL

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

CERTIFIED MAIL

Dear Registrant:

I am pleased to announce that the Environmental Protection Agency has completed its reregistration eligibility review and decisions on the pesticide chemical cases m-cresol and xylenol. The enclosed Reregistration Eligibility Decision (RED) contains the Agency's evaluation of the data base of these chemicals, its conclusions of the potential human health and environmental risks of the current product uses, and its decisions and conditions under which these uses and products will be eligible for reregistration. The RED includes the data and labeling requirements for products for reregistration. It may also include requirements for additional data (generic) on the active ingredient(s) to confirm the risk assessments.

To assist you with a proper response, read the enclosed document entitled "Summary of Instructions for Responding to the RED". This summary also refers to other enclosed documents which include further instructions. You must follow all instructions and submit complete and timely responses. **The first set of required responses are due 90 days from the date of this letter. The second set of required responses are due 8 months from the date of this letter.** Complete and timely responses will avoid the Agency taking the enforcement action of suspension against your products.

If you have questions on the product specific data requirements or wish to meet with the Agency, please contact the Special Review and Reregistration Division representative Franklin Gee at (703) 308-8008.

Sincerely yours,

Louis P. True, Jr., Acting Director
Special Review and
Reregistration Division

Enclosures

SUMMARY OF INSTRUCTIONS FOR RESPONDING TO THE REREGISTRATION ELIGIBILITY DECISION (RED)

1. **DATA CALL-IN (DCI) OR "90-DAY RESPONSE"**--If **generic data** are required for reregistration, a DCI letter will be enclosed describing such data. If **product specific data** are required, another DCI letter will be enclosed listing such requirements. If **both generic and product specific data** are required, a combined Generic and Product Specific letter will be enclosed describing such data. Complete the two response forms provided with each DCI letter (or four forms for the combined) by following the instructions provided. **You must submit the response forms for each product and for each DCI within 90 days of the date of this letter (RED issuance date); otherwise, your product may be suspended.**

2. **TIME EXTENSIONS AND DATA WAIVER REQUESTS**--No time extension requests will be granted for the 90-day response. Time extension requests may be submitted only with respect to actual data submissions. Requests for data waivers must be submitted as part of the 90-day response. Requests for time extensions should be submitted in the 90-day response, but certainly no later than the 8-month response date. All data waiver and time extension requests must be accompanied by a full justification. All waivers and time extensions must be granted by EPA in order to go into effect.

3. **APPLICATION FOR REREGISTRATION OR "8-MONTH RESPONSE"--You must submit the following items for each product within eight months of the date of this letter (RED issuance date).**

a. **Application for Reregistration** (EPA Form 8570-1). Use only an original application form. Mark it "Application for Reregistration." Send your Application for Reregistration (along with the other forms listed in b-e below) to the address listed in item 5.

b. **Five copies of draft labeling** which complies with the RED and current regulations and requirements. Only make labeling changes which are required by the RED and current regulations (40 CFR 156.10) and policies. Submit any other amendments (such as formulation changes, or labeling changes not related to reregistration) separately. You may delete uses which the RED says are ineligible for reregistration. For further labeling guidance, refer to the labeling section of the EPA publication "General Information on Applying for Registration in the U.S., Second Edition, August 1992" (available from the National Technical Information Service, publication #PB92-221811; telephone number 703-487-4650).

c. **Generic or Product Specific Data**. Submit all data in a format which complies with PR Notice 86-5, and/or submit citations of data already submitted and give the EPA identifier (MRID) numbers. Before citing these studies, you must **make sure that they meet the Agency's acceptance criteria** (attached to the DCI).

d. **Two copies of the Confidential Statement of Formula (CSF)** for each basic and each alternate formulation. The labeling and CSF which you submit for each product must comply with P.R. Notice 91-2 by declaring the active ingredient as the **nominal concentration**. You have two options for submitting a CSF: (1) accept the standard certified limits (see 40 CFR §158.175) or (2) provide certified limits that are supported by the analysis of five batches. If you choose the second option, you must submit or cite the data for the five batches along with a certification statement as described in 40 CFR §158.175(e). A copy of the CSF is enclosed; follow the instructions on its back.

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e. **Certification With Respect to Data Compensation Requirements**. Complete and sign EPA form 8570-31 for each product.

4. **COMMENTS IN RESPONSE TO FEDERAL REGISTER NOTICE**--Comments pertaining to the content of the RED may be submitted to the address shown in the Federal Register Notice which announces the availability of this RED.

5. **WHERE TO SEND PRODUCT SPECIFIC DCI RESPONSES (90-DAY) AND APPLICATIONS FOR REREGISTRATION (8-MONTH RESPONSES)**

By U.S. Mail:

Document Processing Desk **(RED-SRRD-PRB)**
Office of Pesticide Programs (7504C)
EPA, 401 M St. S.W.
Washington, D.C. 20460-0001

By express:

Document Processing Desk **(RED-SRRD-PRB)**
Office of Pesticide Programs (7504C)
Room 266A, Crystal Mall 2
1921 Jefferson Davis Hwy.
Arlington, VA 22202

6. **EPA'S REVIEWS**--EPA will screen all submissions for completeness; those which are not complete will be returned with a request for corrections. EPA will try to respond to data waiver and time extension requests within 60 days. EPA will also try to respond to all 8-month submissions with a final reregistration determination within 14 months after the RED has been issued.

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REREGISTRATION ELIGIBILITY DECISION

M-CRESOL AND XYLENOL

LIST D

CASES 4027 and 4098

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS
SPECIAL REVIEW AND REREGISTRATION DIVISION

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M-CRESOL AND XYLENOL REREGISTRATION ELIGIBILITY DECISION TEAM

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GLOSSARY OF TERMS AND ABBREVIATIONS

AE	Acid equivalent
a.i.	Active Ingredient
CAS	Chemical Abstracts Service
CSF	Confidential Statement of Formula
DRES	Dietary Risk Evaluation System
DWEL	Drinking Water Equivalent Level (DWEL) The DWEL represents a medium specific (i.e. drinking water) lifetime exposure at which adverse, non carcinogenic health effects are not anticipated to occur.
EEC	Estimated Environmental Concentration. The estimated pesticide concentration in an environment, such as a terrestrial ecosystem.
EP	End-Use Product
EPA	U.S. Environmental Protection Agency
FDA	Food and Drug Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FFDCA	Federal Food, Drug, and Cosmetic Act
GLC	Gas Liquid Chromatography
GRAS	Generally Recognized As Safe as designated by FDA
HA	Health Advisory (HA) The HA values are used as informal guidance to municipalities and other organizations when emergency spills or contamination situations occur.
HDT	Highest Dose Tested
LC_{50}	Median Lethal Concentration. A statistically derived concentration of a substance that can be expected to cause death in 50% of test animals. It is usually expressed as the weight of substance per weight or volume of water, air or feed, e.g., mg/l, mg/kg or ppm.

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GLOSSARY OF TERMS AND ABBREVIATIONS

LD_{50}	Median Lethal Dose. A statistically derived single dose that can be expected to cause death in 50% of the test animals when administered by the route indicated (oral, dermal, inhalation). It is expressed as a weight of substance per unit weight of animal, e.g., mg/kg.
LD_{lo}	Lethal Dose-low. Lowest Dose at which lethality occurs
LEL	Lowest Effect Level
LOC	Level of Concern
LOEL	Lowest Observed Effect Level
MCLG	Maximum Contaminant Level Goal (MCLG) The MCLG is used by the Agency to regulate contaminants in drinking water under the Safe Drinking Water Act.
MP	Manufacturing-Use Product
MPI	Maximum Permissible Intake
MOE	Margin Of Exposure
MRID	Master Record Identification (number). EPA's system of recording and tracking studies submitted.
N/A	Not Applicable
NPDES	National Pollutant Discharge Elimination System
NOEL	No Observed Effect Level
OPP	Office of Pesticide Programs
PADI	Provisional Acceptable Daily Intake
PAM	Pesticide Analytical Method
ppm	Parts Per Million
PR Notice	Notice that is published in the Public Register

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GLOSSARY OF TERMS AND ABBREVIATIONS

Q^*_1	The Carcinogenic Potential of a Compound, Quantified by the EPA's Cancer Risk Model
RED	Reregistration Eligibility Decision
RfD	Reference Dose
RS	Registration Standard
TD	Toxic Dose. The dose at which a substance produces a toxic effect.
TC	Toxic Concentration. The concentration at which a substance produces a toxic effect.
TGAI	Technical Grade Active Ingredient
TMRC	Theoretical Maximum Residue Contribution
TLC	Thin Layer Chromatography

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EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (hereafter referred to as the "Agency" or "EPA") has completed its reregistration assessment of the available information on the pesticidal active ingredients m-cresol and xylenol (2,4 xylenol). The two active ingredients (i.e. two cases) are formulated together as one product that has bacteriostatic activity against the causal agents for crown gall and olive knot and control of the genetic/physiological disorder, burr knot. Use sites include fruit, ornamental and shade trees and ornamental woody shrubs and vines. The Agency has reviewed the available data for m-cresol and xylenol and has determined that the uses described and modified in this reregistration eligibility decision document as currently registered will not cause unreasonable risk to humans or the environment and that these uses are eligible for reregistration.

Before reregistering the products containing m-cresol and xylenol, the Agency is requiring that product specific data, revised Confidential Statements of Formula (CSF) and revised labeling be submitted within eight months of the issuance of this document. These data include product chemistry for each registration and acute toxicity testing. After reviewing these data and any revised labels and finding them acceptable in accordance with Section 3(c)(5) of FIFRA, the Agency will reregister a product. Those products which contain other active ingredients will be eligible for reregistration only when the other active ingredients are determined to be eligible for reregistration.

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I. INTRODUCTION

In 1988, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was amended to accelerate the reregistration of products with active ingredients registered prior to November 1, 1984. The amended Act provides a schedule for the reregistration process to be completed in nine years. There are five phases to the reregistration process. The first four phases of the process focus on identification of data requirements to support the reregistration of an active ingredient and the generation and submission of data to fulfill the requirements. The fifth phase is a review by the U.S. Environmental Protection Agency (referred to as "the Agency") of all data submitted to support reregistration.

FIFRA Section 4(g)(2)(A) states that in Phase 5 "the Administrator shall determine whether pesticides containing such active ingredient are eligible for reregistration" before calling in data on products and either reregistering products or taking "other appropriate regulatory action." Thus, reregistration involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criterion of FIFRA.

This document presents the Agency's decision regarding the reregistration eligibility of the registered uses of m-cresol and xylenol. The document consists of six sections. Section I is the introduction. Section II describes m-cresol and xylenol, its uses, data requirements and regulatory history. Section III discusses the human health and environmental assessment based on the data available to the Agency. Section IV presents the reregistration decision for m-cresol and xylenol. Section V discusses the reregistration requirements for m-cresol and xylenol. Finally, Section VI is the Appendices which support this Reregistration Eligibility Decision. Additional details concerning the Agency's review of applicable data are available on request.

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II. CASE OVERVIEW

A. Chemical Overview

The following active ingredients are covered by this Reregistration Eligibility Document:

- **Common Names:** m-cresol and xylenol

- **Chemical Names:**
  m-cresol: 3-methyl phenol
  xylenol: 2,4-dimethylphenol; 2,4 xylenol

- **Chemical Family:** phenols

- **CAS Registry Number:**
  m-cresol: 108-39-4
  xylenol: 105-67-9

- **OPP Chemical Code:**
  m-cresol: 22102
  xylenol: 86804

- **Empirical Formula:**
  m-cresol: C_7H_8O
  xylenol: $C_8H_{10}0$

- **Trade and Other Names:** Gallex, as both active ingredients formulated together

- **Basic Manufacturer:** AgBioChem, Inc.

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B. Use Profile

The following is information on the current registered uses with an overview of use sites and application methods. A detailed table of these uses of m-cresol and xylenol is in Appendix A.

Type of Pesticide: bactericide/bacteriostat

Use sites: almond, apple, apricot, blueberry, cherry, filbert (hazelnut), grape, nectarine, olive, oleander, ornamentals, peach, pear, pecan, plum, prune, and walnut (English/black), fruit, nut, ornamental trees and vine crops in the field or greenhouse.

Diseases:
biotic - crown gall (*Agrobacterium tumefacians*) and olive knot (*Pseudomonas savastanoi*).

abiotic - burr knot (genetic/physiological disorder).

Formulation Types Registered: Liquid-Ready to use (0.466% m-cresol and 0.463% xylenol)

Method and Rates of Application:

Equipment - paintbrush

Method, rate and timing - The product is applied as a brush-on (painted) gall or tumor treatment for control of the bacterial diseases crown gall and olive knot on certain fruit and nut trees and ornamentals and the genetic/physiological disorder burr knot on apples. The end-use product is painted on the gall and cut surfaces plus 1/2 inch of the surrounding healthy bark. Treated galls below ground level are allowed to dry one or more days before the soil is replaced. Treatment may be repeated after 4 to 6 months, if any live galls are found upon examination. Pesticide applications are to be made only on infected areas and are typically done prior to budbreak in early spring or during early summer. Treatment is made up to one half of the galled trunk per application interval to prevent girdling and water deprivation of the host.

Use Practice Limitations: Gallex will injure tender foliage, stems and root tissue of most plants. Do not allow rinse water from brushes and containers to

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contaminate streams, ponds and lakes, as water life may be affected. Do not contaminate water, food, or feed by storage, spillage or disposal. Keep container closed when not in use.

C. Estimated Usage of Pesticide

Due to a lack of usage data for m-cresol and xylenol, the Agency cannot estimate the volume of use for these pesticides. However, it assumes the volume is relatively low.

D. Data Requirements

Appendix B includes all data requirements identified by the Agency needed to support reregistration for currently registered uses.

E. Regulatory History

M-cresol and xylenol were registered by the Agency for use in the United States in 1980 for use as a bactericide for control of crown gall and olive knot on certain fruit and nut trees and ornamentals and the genetic/physiological disorder burr knot on apples. Currently, one product is registered which contains both m-cresol and xylenol.

III. SCIENCE ASSESSMENT

A. Physical Chemistry Assessment

M-cresol

The crude chemical cresol can be a mixture of its isomers, namely o-cresol, m-cresol and p-cresol. Each of these individual compounds can be prepared and identified in the pure form.

Chemical name:	3-methyl phenol
Chemical formula:	C_7H_80
Molecular weight:	108.14
Color:	colorless or yellowish color
Physical State:	liquid at room temperature

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Odor:	phenolic odor
Melting Point:	11.5°C
Boiling Point:	202.2°C at 760 mm
Solubility:	2.5% in water, in solutions of alkali hydroxides; miscible alcohol, chloroform and ether.
Vapor Pressure:	0.18 mm at 25°C
Dissociation Constant:	9.8×10^{-11} at 25°C
Log $K_{o/w}$:	1.98
Specific gravity:	1.034 at 20°C

2,4-Xylenol (xylenol)

2,4-Xylenol is one of the six isomers of xylenol. It is derived from cresylic acid or tar acid fraction of coal tar.

Chemical name:	2,4-dimethylphenol
Chemical formula:	$C_8H_{10}O$
Molecular weight:	122.17
Color:	white
Physical state :	crystalline solid
Odor:	phenolic odor
Melting point:	26°C
Boiling point:	211°C at 760 mm
Solubility:	Slightly soluble in water (6.2 g/1000 ml at 25°C), soluble in organic solvents and freely soluble in alcohol, chloroform,

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	ether, benzene and sodium hydroxide solution.
Vapor Pressure	0.2 mm Hg at 25°C
Dissociation constant	pK_a = 10.63
Octanol/water partition coefficient	logP = 2.35
Specific gravity	0.97 at 20°C

B. Human Health Assessment

1. Toxicology Assessment

The Agency relied on data from the registrant and the published literature for both chemicals. While the generic toxicological database requirements for these two chemicals are limited to acute and subchronic toxicology and mutagenicity because of the current use patterns, there are other studies on developmental and reproductive toxicology and metabolism of m-cresol which are also reported here. The toxicology data base on the active ingredients, m-cresol and xylenol, is adequate and will support reregistration eligibility.

In general, cresols are present at low concentration levels in various environmental media including air, car exhaust, wood, and coal. There have been reports that cresols may have tumor promoting activity. However, no adequate studies are currently available on the carcinogenicity of cresols.

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a. Acute Toxicity

TECHNICAL M-CRESOL AND END-USE PRODUCT

TEST	TEST SUBSTANCE	RESULTS	CATE-GORY[1]
Acute oral - rat	m-cresol	LD_{50} = 242 mg/kg	II
Acute oral - mouse	m-cresol	LD_{50} = 828 mg/kg	III
Acute oral - rabbit	m-cresol	LD_{50} = 2050 mg/kg	III
Acute dermal - rat	m-cresol	LD_{50} = 1100 mg/kg	II
Acute dermal - rabbit	m-cresol	LD_{50} = 2050 mg/kg	III
Acute inhalation - rat	m-cresol	waived[2]	--
Eye irritation - rabbit	m-cresol	severe irritation	I
Skin irritation - rabbit	m-cresol	corrosive	I
Skin irritation - rabbit	m-cresol	severe irritation	I
Dermal sensitization - guinea pig	end-use product	sensitizer	--

[1] Categories of acute toxicity:
Category I - high level of toxicity
Category II - moderate to high level of toxicity
Category III - low to moderate level of toxicity
Category IV - very low toxicity

[2] Study not required because there is no registered manufacturing-use product, the end-use product formulation has a low concentration of m-cresol, and the end-use product is applied by a brush in the field or greenhouse.

M-Cresol

For m-cresol, the literature reports that the acute oral toxicity LD_{50} was 242 mg/kg for rats and 828 mg/kg for mice. The oral LD_{50} for rabbits was 1400 mg/kg. The dermal LD_{50} was reported as 1100 mg/kg for rats and 2050 mg/kg for rabbits. M-cresol was also reported to cause severe dermal and eye irritation, based on studies in which a 517 mg dose was placed on rabbit skin for 24 hours and when a 103 mg dose was placed in rabbit eyes (Sax and Lewis, 1989).

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TECHNICAL XYLENOL AND END-USE PRODUCT

TEST	TEST SUBSTANCE	RESULTS	CATE-GORY[1]
Acute oral - rat	xylenol	LD_{50} = 3200 mg/kg	III
Acute oral - mouse	xylenol	LD_{50} = 809 mg/kg	III
Acute dermal - rat	xylenol	LD_{50} = 1040 mg/kg	II
Acute dermal - mouse	xylenol	LD_{50} = 1040 mg/kg	II
Acute inhalation - rat	xylenol	waived[2]	--
Skin irritation - rabbit	xylenol	corrosive	I
Skin irritation - rabbit	xylenol + m-cresol (50/50 w/w)	corrosive	I
Dermal sensitization - guinea pig	end-use product	sensitizer	--

[1] Categories of acute toxicity:
Category I - high level of toxicity
Category II - moderate to high level of toxicity
Category III - moderate to low level of toxicity
Category IV - very low toxicity

[2] Study not required because there is no registered manufacturing-use product, the end-use product formulation has a low concentration of xylenol, and the end-use product is applied by a brush in the field or greenhouse.

Xylenol

For xylenol, the literature reports that the acute oral toxicity LD_{50} was 3200 mg/kg for rats and 809 mg/kg for mice. The dermal LD_{50} was reported as 1040 mg/kg for rats and 1040 mg/kg for mice and that xylenol was corrosive to rabbit skin (Sax and Lewis, 1989).

Other Acute Studies

An eye irritation study in rabbits using 8.5% of each active ingredient found slight eye irritation, which was toxicity category II (MRID 00138519).

A primary dermal irritation study of five variations of m-cresol and/or xylenol was conducted with rabbits. The first test material, m-cresol, produced necrotic and corrosive effects, as did the second test material, xylenol, and the third, a 50/50 (w/w) mixture of these two chemicals. These results were in

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toxicity category I. The fourth test material was the final product, and the fifth test material was the final product without m-cresol and xylenol; neither produced skin irritation and were toxicity category IV (MRID 00138520).

A dermal sensitization study with guinea pigs found that the end-use product did produce sensitization (MRID 00138521).

b. Subchronic Toxicity

Cresol

The National Toxicology Program (NTP) of the National Institutes of Health conducted two 28-day feeding studies with m-cresol (Dietz, 1992). F344/N rats and B6C3F1 mice were given 0, 300, 1,000, 3,000, 10,000, or 30,000 ppm of m-cresol in the diet. In the study on mice, the threshold NOEL was 53 mg/kg/day in males and 66 mg/kg/day in females (300 ppm). The LOEL was 1,000 ppm (approximately 200 mg/kg/day) based upon neurotoxic signs. The effects at 30,000 ppm included mammary gland, ovarian and uterine atrophy; increased brain weights in males; hypothermia in females; weight loss and reduced weight gain; hunched posture, rough coat, thin appearance, lethargy and tremors. At 10,000 ppm, both sexes displayed hunched posture and rough coat. In addition, females exhibited labored breathing and sunken eyes. There were increased relative kidney weights in males treated at 3,000 ppm and in females treated at 30,000 ppm; increased relative liver weights in males at the three highest doses and all female dose groups; thin appearance in 300 ppm treated females. Some animals died at 10,000 ppm and 30,000 ppm doses.

In the rat study using the same treatment regimen, weight gains were reduced at the highest dose. The NOEL was 3,000 ppm (252 mg/kg/day for both sexes) and the LOEL was 10,000 ppm (870 mg/kg/day for males and 862 mg/kg/day for females). Relative liver weights were increased at 10,000 and 30,000 ppm. Relative brain weight and relative kidney weight for the high dose rats were increased. Uterine atrophy was seen at 30,000 ppm in rats.

NTP conducted 13-week feeding studies with rats and mice using a 60/40 mixture of m-cresol and p-cresol (Dietz, 1992). On the basis of these and other studies, the NTP report indicated that the three isomers (ortho-, meta- and para-) of cresol have similar toxicities. F344/N rats were given diets containing 0, 1880, 3750, 7500, 15,000, or 30,000 ppm m/p cresol mixture. B6C3F1 mice were given diets containing 0, 625, 1,250, 2,500, 5,000, or 10,000 ppm of the m/p-cresol mixture.

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In the above 13-week rat study, body weight for both sexes at the two highest doses as well as weight gain for males at the highest dose and females at the two highest doses were reduced. Rough coat and thin appearance were noted at the high dose. Relative kidney weights were increased in males at the three highest doses and high dose females. Both sexes at the three highest doses had increased relative liver weights. Males at the two highest doses had increased relative testis weights. Indications of decreased hepatocellular function were found at the high dose. Dose-related hyperplasia of the nasal respiratory epithelium was found at all doses. There was increased colloid in thyroid follicles in males at the highest dose and females at the four highest doses. Minimal hypocellularity of bone marrow and minimal uterine atrophy were found in the two highest dose groups.

In the above 13-week mouse study, body weights for both sexes of high dose animals and weight gain for high dose males were decreased. Relative liver weights were increased for males at the two highest doses and high dose females. Hyperplasia of the nasal respiratory epithelium occurred in males at the two highest doses and females at the three highest doses.

Cresol and Xylenol

In a 21-day dermal study, the formulated product (0.46% m-cresol/0.46% xylenol) was applied at 1.0 or 2.0 ml/kg/day and the formulated product's diluent only was applied at 2.0 ml/kg/day to groups of New Zealand white rabbits with abraded or intact skin. Both the formulated product and the diluent produced severe dermal damage on both intact and abraded skin, along with hyperplasia of regional lymph nodes and myeloid hyperplasia of the bone marrow. While this study does not conform to the Agency's testing guidelines for a 21-day dermal study, no further dermal studies are required since this study demonstrated the formulated product to be corrosive to skin (MRID 00138524).

c. Developmental Toxicity

Cresol

In Sprague-Dawley rats, m-cresol was given by gavage on gestation days 6-15 at doses of 0, 30, 175, or 450 mg/kg/day. The only observation at the mid dose was perioral wetness. At the high dose, which was the maternal LOEL, there was reduced body weight gain, decreased gestational weight, increased relative liver weight, hypoactivity, audible respiration, ataxia, twitches, tremors, prone positioning, perioral wetness, and urogenital wetness. The NOEL for maternal toxicity was 175 mg/kg/day. No developmental toxicity was found and the developmental toxicity NOEL was at least 450 mg/kg/day for m-cresol (Bushy Run, 1988).

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d. Reproductive Toxicity

Cresol

In a two-generation reproduction toxicity study, m-cresol was given by gavage to Sprague-Dawley rats. The doses were 0, 30, 175, or 450 mg/kg/day of m-cresol. There was parental toxicity at all dose levels for the F1 generation and at the high dose level for the F0 generation, thus the parental NOEL was less than 30 mg/kg/day. The LOEL was 30 mg/kg/day. The high dose groups had reduced food consumption, weight suppression, clinical signs, and mortality. Necropsy revealed brain hemorrhage, distentions of the intestines, decreased numbers of sperm, atrophied seminal vesicles, and lung congestion. The F1 mid dose group had perioral wetness and all F1 treated groups had weight suppression. There were reductions in pup body weight gain and reduced mean pup weight at the high dose. In addition, the F1 high dose group had increased numbers of dead pups. The NOEL for offspring was 175 mg/kg/day (Bushy Run, 1989).

NTP reported a reproductive toxicity study in CD-1 Swiss mice with a mixture of 60% m-cresol and 40% p-cresol, using the reproductive assessment by continuous breeding protocol (Izard et al, 1992). The doses were 0, 0.25, 1.0, or 1.5% in the feed, given for 14 weeks of cohabitation. For the F0 generation, live pup weight and the number of live pups per litter were decreased in the high dose group, and the number of days to the fifth litter was increased. Body weight and food consumption were decreased at 1.0 and 1.5% doses. There were increased kidney and liver weights at the 1.5% dose, as well as decreased epididymal and seminal vesicle weights. For the F1 generation, pup growth and survival were decreased at the 1.5% level, with reduced size, dehydration, lethargy, and rough coat. Both 1.0 and 1.5% doses had decreased male body weight and male reproductive organ weights, but increased relative liver and kidney weights. Females at the two highest doses had reduced body weight, and all dosed female groups had increased kidney and liver weights plus reduced ovarian weights. The NOEL for reproductive toxicity for the parent generation was 1.0% (average 1389 mg/kg/day) and the LOEL was 1.5% (average 1649 mg/kg/day). The NOEL for reproductive effects in F1 animals was 0.25% (463 mg/kg/day) while the LOEL was 1.0% (1798 mg/kg/day), based on body and organ weights.

e. Mutagenicity

Cresol

M-cresol was negative for gene mutation in Salmonella tests, with and without activation and in mouse lymphoma tests, with and without activation

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(Hazleton, 1988a; Health and Human Services, 1992). It showed no effect on unscheduled DNA synthesis in rat hepatocytes (Hazleton, 1988b). Chinese hamster ovary cell tests for chromosomal aberrations were suggestive, but not without activation (Hazleton, 1988c). The data were suggestive of cell transformation without activation when m-cresol was tested using BALB/C-3T3 cells, with and without activation (Hazleton, 1988d). An in vivo assay for chromosomal aberration in mouse bone marrow was negative (Hazleton, 1989).

Xylenol

Studies on the xylenol active ingredient are not required to fulfill this guideline requirement.

f. Metabolism

Cresol

The NTP report on cresols discussed the available information on cresol metabolism (Dietz, 1992). Generally, exogenous cresols are absorbed from the gastrointestinal tract and subsequently conjugated with glucuronide or sulfate; there is urinary excretion.

g. Reference Dose

Significant toxicological residues of m-cresol and xylenol are not expected to occur in food/feed commodities from registered uses of the end-use pesticide product. Therefore, reference doses are not required.

2. Exposure Assessment

a. Dietary Exposure

The uses of the active ingredients m-cresol and xylenol in the end-use product include application only to the bases of fruit and nut trees. No dietary exposure to residues m-cresol and xylenol are expected in food/feed commodities.

b. Occupational and Residential

There is one registered product subject to reregistration for m-cresol and xylenol. The two active ingredients in the end-use product are each present at 0.46%(w/w). The end-use product is formulated as a flowable emulsion. The product label states applications can be made every four to six months or about twice a year.

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For workers who apply the pesticide by paint brush and wear long pants, long sleeves and no gloves, the unit of exposure is estimated at 290 mg/lb a.i. handled (Ref: Surrogate Unit Exposure Values for REDs where clothing scenario is long pants, long sleeves, no gloves, and the median lb ai/handled was 0.0253. March 9, 1994). For the purpose of estimating occupational/residential exposures to the m-cresol and xylenol active ingredients in the end-use pesticide product, it is assumed that one gallon (total weight = 9 lb/gal) of this product is used per worker per day for 4 consecutive days and that the worker is of average body weight (70 kg). Total worker exposure to m-cresol and xylenol in the pesticide product is estimated to be 0.172 mg/kg/day of each chemical (see below).

lbs. a.i. handled per day = 1 gal. X 0.0046 X 9 lb = 0.0414 lb a.i.
Total exposure per day = 290 mg/lb a.i. X 0.0414 lb a.i. = 12.01 mg
Average worker body weight = 70 kg
Average exposure per worker per day = 12.01 mg / 70 kg/day = 0.172 mg/kg/day

3. Risk Assessment

a. Dietary

The current use pattern for the end-use product is not expected to result in residues in/on food/feed crops. Therefore, a dietary risk assessment is not required for the current use pattern for the two active ingredients in the pesticide end-use product.

b. Occupational and Residential

Toxicity Endpoints

Toxicological endpoints of concern for technical m-cresol and xylenol include acute and subchronic toxicological parameters. Acute dermal toxicity of both chemicals was moderate (Toxicology Category II). Skin irritation for both chemicals and eye irritation for m-cresol were high (Toxicology Category I). Although acute oral toxicity of m-cresol and xylenol were moderate, they are not a toxicological endpoint of concern because oral exposure is not expected from the use pattern. Details of these endpoints are presented above in the Toxicology Assessment section.

For the purposes of evaluating worker risk from the current use of this pesticide end-use product, the active ingredient of concern in this pesticide product is m-cresol due to the available data on this chemical. For technical m-

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cresol, the Agency concluded the short term occupational/residential exposure NOEL for m-cresol is 175 mg/kg/day, based on maternal toxicity from the developmental toxicity study described above. No developmental toxicity was found; the NOEL was at least 450 mg/kg/day, for m-cresol. The intermediate term exposure NOEL for m-cresol is 53 mg/kg/day, based on the 28-day feeding study in male and female mice (Dietz, 1992). Comparable data for xylenol were not available.

Acute toxicity data on the end-use product (Gallex), suggest it is not a skin irritant (Toxicology Category IV). However, the end-use product is considered to be a dermal sensitizer. In a 21-day dermal study (rabbit) which compared the effects of the end-use product with the effects of end-use product solvent alone, no toxic effects could be attributed to the active ingredients, m-cresol and xylenol.

Occupational/Residential Risk

For the registered end-use product, one to two applications are made to infected plant tissue. A maximum of four consecutive days of occupational/residential use and applicator exposure are expected from available information on the pesticide product use pattern. The NOEL for short term exposure (7 consecutive days or less) is 175 mg/kg/day for m-cresol.

The Agency also considered intermediate term exposure (one week to several months) for the end-use product. The Agency considered intermediate term exposure in its risk assessment due to the potential that commercial applicators may be exposed to the end-use product for this interval. However, the Agency believes that short term exposure is more applicable for the risk assessment due to the nature of the use pattern of the end-use product. The intermediate term exposure (one week to several months) NOEL is 53 mg/kg/day. Similar toxicity data are not available for xylenol.

The Agency calculated margins of exposure (MOE) to compare the NOEL from m-cresol to the estimates of exposure to applicators. On this basis, the short term (1 to 7 days) occupational/residential MOE (margin of exposure) is estimated to be 1017 and the intermediate term (one week to several months) MOE is estimated to be 308.

MOE = NOEL ÷ Exposure

Short term occupational/Residential

MOE = 175 mg/kg/day ÷ 0.172 mg/kg/day = 1017

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Intermediate term occupational/Residential

MOE = 53 mg/kg/day ÷ 0.172 mg/kg/day = 308

Considering the estimated MOEs, the Agency does not expect significant health risks from short term or intermediate occupational/residential exposures to m-cresol from proper use of the end-use product.

However, data indicate that the end-use product is a dermal sensitizer. In addition, uncertainty exists for acute dermal toxicity and acute eye irritation from exposure to the end-use product. Toxicity tests using technical grade m-cresol and xylenol demonstrated corrositivity and severe irritation for these endpoints. The Agency is requiring data to address the dermal toxicity and eye irritation potential of the formulated product. Use of PPE (protective eyewear, chemical resistant gloves, long sleeves, long pants, shoes and socks) would reduce exposure.

Post Application Risk

Based on the toxicity data and pesticide product use pattern, there are no post-application worker exposure concerns.

C. Environmental Assessment

The Agency did not require registrants to submit any data about the environmental fate or ecotoxicology of m-cresol and xylenol. The Agency believes the current use pattern will result in very low environmental exposure and the Agency presumes the volume of use is very low. Therefore, the Agency did not conduct an environmental risk assessment for the use of these two chemicals. Considering the limited exposure and the small amount thought to be used, use of this product represents no threat to wildlife. Non-target organisms, including endangered species, are not expected to be adversely affected from this use.

IV. RISK MANAGEMENT AND REREGISTRATION DECISION

A. Determination of Eligibility

Section 4(g)(2)(A) of FIFRA calls for the Agency to determine, after submission of relevant data concerning an active ingredient, whether products containing the active ingredients are eligible for reregistration. The Agency has previously identified and required the submission of the generic (i.e. active ingredient specific) data required to support reregistration of products containing m-cresol and xylenol active ingredients. The Agency has completed its review of these generic data,

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and has determined that the data are sufficient to support reregistration of all products containing m-cresol and xylenol. Appendix B identifies the generic data requirements that the Agency reviewed as part of its determination of reregistration eligibility of m-cresol and xylenol, and lists the submitted studies that the Agency found acceptable.

The data identified in Appendix B were sufficient to allow the Agency to assess the registered uses of m-cresol and xylenol and to determine that m-cresol and xylenol can be used without resulting in unreasonable adverse effects to humans and the environment. The Agency therefore finds that all products containing m-cresol and xylenol as the active ingredients are eligible for reregistration. The reregistration of particular products is addressed in Section V of this document.

The Agency made its reregistration eligibility determination based upon the target data base required for reregistration, the current guidelines for conducting acceptable studies to generate such data and the data identified in Appendix B. Although the Agency has found that all uses of m-cresol and xylenol are eligible for reregistration as specified in this RED, it should be understood that the Agency may take appropriate regulatory action, and/or require the submission of additional data to support the registration of products containing m-cresol and/or xylenol, if new information comes to the Agency's attention or if the data requirements for registration (or the guidelines for generating such data) change.

1. Eligibility Decision

Based on the reviews of the generic data for the active ingredients m-cresol and xylenol, the Agency has sufficient information on their health effects and on their potential for causing adverse effects in fish and wildlife and the environment. The Agency has determined that m-cresol and xylenol products, labeled and used as specified in this Reregistration Eligibility Decision, will not pose unreasonable risks or adverse effects to humans or the environment. Therefore, the Agency concludes that products containing m-cresol and xylenol for all uses are eligible for reregistration.

2. Eligible and Ineligible Uses

The Agency has determined that all uses of m-cresol and xylenol are eligible for reregistration.

B. Regulatory Position

The following is a summary of the regulatory positions and rationales for m-cresol and xylenol. Where labeling revisions are imposed, specific language is set forth in Section V of this document.

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1. Tolerance Reassessment

The Agency does not expect residues to be found in edible crops because of the method of use. Since the Agency does not have dietary concerns with either m-cresol or xylenol, an exemption from the requirements of tolerances must be established for m-cresol and xylenol in or on raw agricultural commodities from the registered use on food/feed crops. The Agency has notified the registrant under separate cover of this requirement to file the petition for exemption.

2. Labeling Rationale

a. General

The labels and labeling of all products must comply with EPA's current regulations and requirements as specified in 40 CFR §156.10.

b. Worker Protection Standard and Personal Protective Equipment (PPE)

For each end-use product, PPE requirements for pesticide handlers will be set during reregistration in one of two ways:

● If the Agency has no special concerns about the acute or other adverse effects of an active ingredient, the PPE for pesticide handlers will be based on the acute toxicity or the end-use product. For occupational-use products, PPE will be established using the process described in PR Notice 93-7 or more recent guidelines.

● If the Agency has special concerns about an active ingredient due to very high acute toxicity or to certain other adverse effects, such as allergic effects or delayed effects (cancer, developmental toxicity, reproductive effects, etc):

● In the RED for that active ingredient, the Agency may establish minimum or "baseline" handler PPE requirements that pertain to all or most occupational end-use products containing that active ingredient.

●These minimum PPE requirements must be compared with the PPE that would be designed on the basis of the acute toxicity of each end-use product.

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● The more stringent choice of PPE (i.e., bodywear, hand protection, footwear, eyewear, etc.) must be in place on the label of the end-use product.

Because of the acute toxicity potential of the end-use product (dermal sensitization and possible eye and skin irritation), the Agency is requiring the use of PPE for applicators of the product. Protective eyewear, chemical resistant gloves, long sleeves, long pants, shoes and socks are being required.

Upon receipt and review of additional future data for the end-use product or for new proposed products containing the subject active ingredients, the Agency may determine that different PPE is more appropriate.

V. ACTIONS REQUIRED BY REGISTRANTS

This section specifies the data requirements and responses necessary for the reregistration of both manufacturing-use and end-use products.

A. Manufacturing-Use Products

1. Additional Generic Data Requirements

The generic data base supporting the reregistration of m-cresol and xylenol for the above eligible uses has been reviewed and determined to be substantially complete. No additional generic data are required at this time. Also, currently, there are no registered manufacturing use products.

B. End-Use Products

1. Additional Product-Specific Data Requirements

Section 4(g)(2)(B) of FIFRA calls for the Agency to obtain any needed product-specific data regarding the pesticide after a determination of eligibility has been made. The product specific data requirements are listed in Appendix G, the Product Specific Data Call-In Notice.

Registrants must review previous data submissions to ensure that they meet current EPA acceptance criteria (Appendix F; Attachment E) and if not, commit to conduct new studies. If a registrant believes that previously submitted data meet current testing standards, then study MRID numbers should

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be cited according to the instructions in the Requirement Status and Registrants Response Form provided for each product.

2. Labeling Requirements for End-Use Products

Because of the acute toxicity potential of the end-use product, the Agency is requiring PPE for applicators. The following label statement is required:

"Applicators and other handlers must wear: protective eyewear, chemical resistant gloves, long sleeves, long pants, shoes and socks."

C. Existing Stocks

Registrants may generally distribute and sell products bearing old labels/labeling for 26 months from the date of the issuance of this Reregistration Eligibility Decision (RED). Persons other than the registrant may generally distribute or sell such products for 50 months from the date of the issuance of this RED. However, existing stocks time frames will be established case-by-case, depending on the number of products involved, the number of label changes, and other factors. Refer to "Existing Stocks of Pesticide Products; Statement of Policy"; Federal Register, Volume 56, No. 123, June 26, 1991.

The Agency has determined that registrants may distribute and sell m-cresol and xylenol products bearing old labels/labeling for 26 months from the date of issuance of this RED. Persons other than the registrant may distribute or sell such products for 50 months from the date of the issuance of this RED. Registrants and persons other than registrants remain obligated to meet pre-existing Agency imposed label changes and existing stocks requirements applicable to products they sell or distribute.

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VI. APPENDICES

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APPENDIX A. Table of Use Patterns Subject to Reregistration

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SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Tex. Max. Dose	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
USES ELIGIBLE FOR REREGISTRATION											
FOOD/FEED USES											
ALMOND				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
APPLE				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
APRICOT				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
BLUEBERRY				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
CHERRY				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
FILBERT (HAZELNUT)				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM

SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Tex. Max. Dose	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
USES ELIGIBLE FOR REREGISTRATION											
FOOD/FEED USES (con't)											
GRAPES				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
NECTARINE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
OLIVE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
PEACH				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
PEAR				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
PECAN				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
PLUM				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM

SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Tex.	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
USES ELIGIBLE FOR REREGISTRATION											
FOOD/FEED USES (con't)											
PRUNE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
WALNUT (ENGLISH/BLACK)				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
NON-FOOD/NON-FEED											
ORNAMENTAL AND/OR SHADE TREES				Use Group: TERRESTRIAL+GREENHOUSE NON-FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
ORNAMENTAL WOODY SHRUBS AND VINES				Use Group: TERRESTRIAL+GREENHOUSE NON-FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM

LEGEND

HEADER ABBREVIATIONS
Max. Apps @ Max Rate : Maximum number of Applications at Maximum Dosage Rate
Min. Interv (days) : Minimum Interval between Applications (days)
Restr. Entry Interv (days) : Restricted Entry Interval (days)

SOIL TEXTURE FOR MAX APP. RATE
* : Non-specific
C : Coarse
M : Medium
F : Fine
O : Others

FORMULATION CODES
RTU : LIQUID-READY TO USE

ABBREVIATIONS
AN : As Needed
NA : Not Applicable
NS : Not Specified (on label)
UC : Unconverted due to lack of data (on label), or with one of following units: bag, bait, bait block, bait pack, bait station, bait station(s), block, briquet, briquets, bursts, cake, can, canister, capsule, cartridges, coil, collar, container, dispenser, drop, eartag, grains, lure, pack, packet, packets, pad, part, parts, pellets, piece, pieces, pill, pumps, sec, sec burst, sheet, spike, stake, stick, strip, tab, tablet, tablets, tag, tape, towelette, tray, unit, --

APPLICATION RATE
DCNC : Dosage Can Not be Calculated
No Calc : No Calculation can be made
W : PPM calculated by weight
V : PPM Calculated by volume
cwt : Hundred Weight
nnE-xx : nn times (10 power -xx); for instance, "1.234E-04" is equivalent to ".0001234"

USE LIMITATIONS CODES
CAL : Do not contaminate water, food or feed.
CAM : Do not allow rinse water to contaminate streams, ponds and lakes, as water life may be endangered.
* NUMBER IN PARENTHESES REPRESENTS THE NUMBER OF TIME UNITS (HOURS,DAYS, ETC.) DESCRIBED IN THE LIMITATION.

SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Tex. Max. Dose	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
USES ELIGIBLE FOR REREGISTRATION											
FOOD/FEED USES											
ALMOND				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
APPLE				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
APRICOT				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
BLUEBERRY				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
CHERRY				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
FILBERT (HAZELNUT)				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM

USES ELIGIBLE FOR REREGISTRATION

FOOD/FEED USES (con't)

SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Max. Tex. Dose	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
GRAPES				Use Group: GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
				Use Group: TERRESTRIAL FOOD+FEED CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
NECTARINE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
OLIVE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
PEACH				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
PEAR				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
PECAN				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
PLUM				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC *	NS	NS 120		NS			CAL, CAM

SITE Application Type, Application Timing, Application Equipment _ Surface Type (Antimicrobial only) & Efficacy Influencing Factor (Antimicrobial only)	Form(s)	Min. Appl. Rate (AI unless noted otherwise)	Max. Appl. Rate (AI unless noted otherwise)	Soil Tex. Max. Dose	Max. Apps @ Max Rate	Maximum Dose /crop cycle or /year	Min. Interv (days)	Restr. Entry Interv [day(s)]	Geographic Limitations Allowed	Geographic Limitations Disallowed	Use Limitations Codes
USES ELIGIBLE FOR REREGISTRATION											
FOOD/FEED USES (con't)											
PRUNE				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
WALNUT (ENGLISH/BLACK)				Use Group: TERRESTRIAL+GREENHOUSE FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
NON-FOOD/NON-FEED											
ORNAMENTAL AND/OR SHADE TREES				Use Group: TERRESTRIAL+GREENHOUSE NON-FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
ORNAMENTAL WOODY SHRUBS AND VINES				Use Group: TERRESTRIAL+GREENHOUSE NON-FOOD CROP							
Gall treatment., Dormant., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM
Gall treatment., Foliar., Paintbrush.	RTU	NA		UC	*	NS	NS 120	NS			CAL, CAM

LEGEND

HEADER ABBREVIATIONS
Max. Apps @ Max Rate : Maximum number of Applications at Maximum Dosage Rate
Min. Interv (days) : Minimum Interval between Applications (days)
Restr. Entry Interv (days) : Restricted Entry Interval (days)

SOIL TEXTURE FOR MAX APP. RATE
* : Non-specific
C : Coarse
M : Medium
F : Fine
O : Others

FORMULATION CODES
RTU : LIQUID-READY TO USE

ABBREVIATIONS
AN : As Needed
NA : Not Applicable
NS : Not Specified (on label)
UC : Unconverted due to lack of data (on label), or with one of following units: bag, bait, bait block, bait pack, bait station, bait station(s), block, briquet, briquets, bursts, cake, can, canister, capsule, cartridges, coil, collar, container, dispenser, drop, eartag, grains, lure, pack, packet, packets, pad, part, parts, pellets, piece, pieces, pill, pumps, sec, sec burst, sheet, spike, stake, stick, strip, tab, tablet, tablets, tag, tape, towelette, tray, unit, --

APPLICATION RATE
DCNC : Dosage Can Not be Calculated
No Calc : No Calculation can be made
W : PPM calculated by weight
V : PPM Calculated by volume
cwt : Hundred Weight
nnE-xx : nn times (10 power -xx); for instance, "1.234E-04" is equivalent to ".0001234"

USE LIMITATIONS CODES
CAL : Do not contaminate water, food or feed.
CAM : Do not allow rinse water to contaminate streams, ponds and lakes, as water life may be endangered.
* NUMBER IN PARENTHESES REPRESENTS THE NUMBER OF TIME UNITS (HOURS,DAYS, ETC.) DESCRIBED IN THE LIMITATION.

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APPENDIX B. Table of the Generic Data Requirements and Studies Used to Make the Reregistration Decision

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GUIDE TO APPENDIX B

Appendix B contains listings of data requirements which support the reregistration for active ingredients within the case M-Cresol and Xylenol covered by this Reregistration Eligibility Decision Document. It contains generic data requirements that apply to M-Cresol and Xylenol in all products, including data requirements for which a "typical formulation" is the test substance.

The data table is organized in the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. the reference numbers accompanying each test refer to the test protocols set in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (703) 487-4650.

2. Use Pattern (Column 2). This column indicates the use patterns for which the data requirements apply. The following letter designations are used for the given use patterns:

A	Terrestrial food
B	Terrestrial feed
C	Terrestrial non-food
D	Aquatic food
E	Aquatic non-food outdoor
F	Aquatic non-food industrial
G	Aquatic non-food residential
H	Greenhouse food
I	Greenhouse non-food
J	Forestry
K	Residential
L	Indoor food
M	Indoor non-food
N	Indoor medical
O	Indoor residential

3. Bibliographic citation (Column 3). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a "GS" number if no MRID number has been assigned. Refer to the Bibliography appendix for a complete citation of the study.

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APPENDIX B

Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
PRODUCT CHEMISTRY			
61-1	**Chemical Identity**	all	Satisfied
61-2A	**Start. Mat. & Mnfg Process**	all	Satisfied
61-2B	**Formation of Impurities**	all	Satisifed
62-1	**Preliminary Analysis**	all	Satisfied
62-2	**Certification of limits**	all	Satisfied
62-3	**Analytical Method**	all	Satisfied
63-2	**Color**	all	Satisfied
63-3	**Physical State**	all	Satisfied
63-4	**Odor**	all	Satisfied
63-5	**Melting Point**	all	Satisfied
63-6	**Boiling Point**	all	Satisfied
63-7	**Density**	all	Satisfied
63-8	**Solubility**	all	Satisfied
63-9	**Vapor Pressure**	all	Satisfied
63-10	**Dissociation Constant**	all	Satisfied
63-11	**Octanol/Water Partition**	all	Satisfied
63-12	**pH**	all	Satisfied
63-13	**Stability**	all	Satisfied

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
63-14	**Oxidizing/Reducing Action**	all	Satisfied
63-15	**Flammability**	all	Satisifed
63-16	**Explodability**	all	Satisfied
63-17	**Storage stability**	all	Satisfied
63-18	**Viscosity**	all	Satisfied
63-19	**Miscibility**	all	Satisfied

ECOLOGICAL EFFECTS

71-1A	**Acute Avian Oral - Quail/Duck**	A,B,C,H,I	Waived
71-1B	**Acute Avian Oral - Quail/Duck TEP**	A,B,C,H,I	Waived
71-2A	**Avian Dietary - Quail**	A,B,C,H,I	Waived
71-2B	**Avian Dietary - Duck**	A,B,C,H,I	Waived
71-3	**Wild Mammal Toxicity**	A,B,C,H,I	Waived
71-4A	**Avian Reproduction - Quail**	A,B,C,H,I	Waived
71-4B	**Avian Reproduction - Duck**	A,B,C,H,I	Waived
71-5A	**Simulated Field Study**	A,B,C,H,I	Waived
71-5B	**Actual Field Study**	A,B,C,H,I	Waived
72-1A	**Fish Toxicity Bluegill**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
72-1B	**Fish Toxicity Bluegill - TEP**	A,B,C,H,I	Waived
72-1C	**Fish Toxicity Rainbow Trout**	A,B,C,H,I	Waived
72-1D	**Fish Toxicity Rainbow Trout- TEP**	A,B,C,H,I	Waived
72-2A	**Invertebrate Toxicity**	A,B,C,H,I	Waived
72-2B	**Invertebrate Toxicity - TEP**	A,B,C,H,I	Waived
72-3A	**Estuarine/Marine Toxicity - Fish**	A,B,C,H,I	Waived
72-3B	**Estuarine/Marine Toxicity - Mollusk**	A,B,C,H,I	Waived
72-3C	**Estuarine/Marine Toxicity - Shrimp**	A,B,C,H,I	Waived
72-3D	**Estuarine/Marine Toxicity Fish- TEP**	A,B,C,H,I	Waived
72-3E	**Estuarine/Marine Toxicity Mollusk - TEP**	A,B,C,H,I	Waived
72-3F	**Estuarine/Marine Toxicity Shrimp - TEP**	A,B,C,H,I	Waived
72-4A	**Early Life Stage Fish**	A,B,C,H,I	Waived
72-4B	**Life Cycle Invertebrate**	A,B,C,H,I	Waived
72-5	**Life Cycle Fish**	A,B,C,H,I	Waived
72-6	**Aquatic Organism Accumulation**	A,B,C,H,I	Waived
72-7A	**Simulated Field - Aquatic Organisms**	A,B,C,H,I	Waived
72-7B	**Actual Field - Aquatic Organisms**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
122-1A	**Seed Germination/Seedling Emergence**	A,B,C,H,I	Waived
122-1B	**Vegetative Vigor**	A,B,C,H,I	Waived
122-2	**Aquatic Plant Growth**	A,B,C,H,I	Waived
123-1A	**Seed Germination/Seedling Emergence**	A,B,C,H,I	Waived
123-1B	**Vegetative Vigor**	A,B,C,H,I	Waived
123-2	**Aquatic Plant Growth**	A,B,C,H,I	Waived
124-1	**Terrestrial Field**	A,B,C,H,I	Waived
124-2	**Aquatic Field**	A,B,C,H,I	Waived
141-1	**Honey Bee Acute Contact**	A,B,C,H,I	Waived
141-2	**Honey Bee Residue on Foliage**	A,B,C,H,I	Waived
141-5	**Field Test for Pollinators**	A,B,C,H,I	Waived
TOXICOLOGY			
81-1	**Acute Oral Toxicity - Rat**	A,B,C,H,I	Satified
81-2	**Acute Dermal Toxicity - Rabbit/Rat**	A,B,C,H,I	Satified
81-3	**Acute Inhalation Toxicity - Rat**	A,B,C,H,I	Waived
81-4	**Primary Eye Irritation - Rabbit**	A,B,C,H,I	00138519
81-5	**Primary Dermal Irritation - Rabbit**	A,B,C,H,I	00138520
81-6	**Dermal Sensitization - Guinea Pig**	A,B,C,H,I	00138521
82-1A	**90-Day Feeding - Rodent**	A,B,C,H,I	Satified

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
82-2	**21-Day Dermal - Rabbit/Rat**	A,B,C,H,I	00138524
83-3A	**Developmental Toxicity - Rat**	A,B,C,H,I	Satisfied
83-4	**2-Generation Reproduction - Rat**	A,B,C,H,I	Satisfied
84-2A	**Gene Mutation (Ames Test)**	A,B,C,H,I	Satisfied
84-2B	**Structural Chromosomal Aberration**	A,B,C,H,I	Satisfied
84-4	**Other Genotoxic Effects**	A,B,C,H,I	Satisfied
85-1	**General Metabolism**	A,B,C,H,I	Satisfied
OCCUPATIONAL/RESIDENTIAL EXPOSURE			
231	**Estimation of Dermal Exposure at Outdoor Sites**	A,B,C,H,I	Satisfied
232	**Estimation of Inhalation Exposure at Outdoor Sites**	A,B,C,H,I	Waived
233	**Estimation of Dermal Exposure at Indoor Sites**	A,B,C,H,I	Satisfied
234	**Estimation of Inhalation Exposure at Indoor Sites**	A,B,C,H,I	Waived
ENVIRONMENTAL FATE			
160-5	**Chemical Identity**	A,B,C,H,I	Waived
161-1	**Hydrolysis**	A,B,C,H,I	Waived
161-2	**Photodegradation - Water**	A,B,C,H,I	Waived
161-3	**Photodegradation - Soil**	A,B,C,H,I	Waived
162-1	**Aerobic Soil Metabolism**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
162-2	**Anaerobic Soil Metabolism**	A,B,C,H,I	Waived
162-3	**Anaerobic Aquatic Metabolism**	A,B,C,H,I	Waived
162-4	**Aerobic Aquatic Metabolism**	A,B,C,H,I	Waived
163-1	**Leaching/Adsorption/Desorption**	A,B,C,H,I	Waived
163-2	**Volatility - Lab**	A,B,C,H,I	Waived
163-3	**Volatility - Field**	A,B,C,H,I	Waived
164-1	**Terrestrial Field Dissipation**	A,B,C,H,I	Waived
164-2	**Aquatic Field Dissipation**	A,B,C,H,I	Waived
164-3	**Forest Field Dissipation**	A,B,C,H,I	Waived
165-1	**Confined Rotational Crop**	A,B,C,H,I	Waived
RESIDUE CHEMISTRY			
171-4A	**Nature of Residue - Plants**	A,B,C,H,I	Waived
171-4B	**Nature of Residue - Livestock**	A,B,C,H,I	Waived
171-4C	**Residue Analytical Method - Plants**	A,B,C,H,I	Waived
171-4D	**Residue Analytical Method - Animal**	A,B,C,H,I	Waived
171-4E	**Storage Stability**	A,B,C,H,I	Waived
171-4F	**Magnitude of Residues - Potable H2O**	A,B,C,H,I	Waived
171-4G	**Magnitude of Residues in Fish**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of M-CRESOL

REQUIREMENT		USE PATTERN	CITATION(S)
171-4H	**Magnitude of Residues - Irrigated Crop**	A,B,C,H,I	Waived
171-4I	**Magnitude of Residues - Food Handling**	A,B,C,H,I	Waived
171-4J	**Magnitude of Residues - Meat/Milk/Poultry/Egg**	A,B,C,H,I	Waived
171-4K	**Crop Field Trials**	A,B,C,H,I	Waived
171-4L	**Processed Food**	A,B,C,H,I	Waived
171-5	**Reduction of Residues**	A,B,C,H,I	Waived
171-6	**Proposed Tolerance**	A,B,C,H,I	Waived
171-7	**Support for Tolerance**	A,B,C,H,I	Waived
171-13	**Analtyical Reference Standard**	A,B,C,H,I	Waived

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APPENDIX B

Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
PRODUCT CHEMISTRY			
61-1	**Chemical Identity**	all	Satisfied
61-2A	**Start. Mat. & Mnfg. Process**	all	Satisfied
61-2B	**Formation of Impurities**	all	Satisfied
62-1	**Preliminary Analysis**	all	Satisfied
62-2	**Certification of limits**	all	Satisfied
62-3	**Analytical Method**	all	Satisfied
63-2	**Color**	all	Satisified
63-3	**Physical State**	all	Satisfied
63-4	**Odor**	all	Satisifed
63-5	**Melting Point**	all	Satisfied
63-6	**Boiling Point**	all	Satisfied
63-7	**Density**	all	Satisfied
63-8	**Solubility**	all	Satisfied
63-9	**Vapor Pressure**	all	Satisfied
63-10	**Dissociation Constant**	all	Satisfied
63-11	**Octanol/Water Partition**	all	Satisfied
63-12	**pH**	all	Satisfied
63-13	**Stability**	all	Satisfied
63-14	**Oxidizing/Reducing Action**	all	Satisfied

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
63-15	**Flammability**	all	Satisfied
63-16	**Explodability**	all	Satisfied
63-17	**Storage stability**	all	Satisifed
63-18	**Viscosity**	all	Satisfied
63-19	**Miscibility**	all	Satisfied

ECOLOGICAL EFFECTS

71-1A	**Acute Avian Oral - Quail/Duck**	A,B,C,H,I	Waived
71-1B	**Acute Avian Oral - Quail/Duck TEP**	A,B,C,H,I	Waived
71-2A	**Avian Dietary - Quail**	A,B,C,H,I	Waived
71-2B	**Avian Dietary - Duck**	A,B,C,H,I	Waived
71-3	**Wild Mammal Toxicity**	A,B,C,H,I	Waived
71-4A	**Avian Reproduction - Quail**	A,B,C,H,I	Waived
71-4B	**Avian Reproduction - Duck**	A,B,C,H,I	Waived
71-5A	**Simulated Field Study**	A,B,C,H,I	Waived
71-5B	**Actual Field Study**	A,B,C,H,I	Waived
72-1A	**Fish Toxicity Bluegill**	A,B,C,H,I	Waived
72-1B	**Fish Toxicity Bluegill - TEP**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
72-1C	**Fish Toxicity Rainbow Trout**	A,B,C,H,I	Waived
72-1D	**Fish Toxicity Rainbow Trout- TEP**	A,B,C,H,I	Waived
72-2A	**Invertebrate Toxicity**	A,B,C,H,I	Waived
72-2B	**Invertebrate Toxicity - TEP**	A,B,C,H,I	Waived
72-3A	**Estuarine/Marine Toxicity - Fish**	A,B,C,H,I	Waived
72-3B	**Estuarine/Marine Toxicity - Mollusk**	A,B,C,H,I	Waived
72-3C	**Estuarine/Marine Toxicity - Shrimp**	A,B,C,H,I	Waived
72-3D	**Estuarine/Marine Toxicity Fish- TEP**	A,B,C,H,I	Waived
72-3E	**Estuarine/Marine Toxicity Mollusk - TEP**	A,B,C,H,I	Waived
72-3F	**Estuarine/Marine Toxicity Shrimp - TEP**	A,B,C,H,I	Waived
72-4A	**Early Life Stage Fish**	A,B,C,H,I	Waived
72-4B	**Life Cycle Invertebrate**	A,B,C,H,I	Waived
72-5	**Life Cycle Fish**	A,B,C,H,I	Waived
72-6	**Aquatic Organism Accumulation**	A,B,C,H,I	Waived
72-7A	**Simulated Field - Aquatic Organisms**	A,B,C,H,I	Waived
72-7B	**Actual Field - Aquatic Organisms**	A,B,C,H,I	Waived
122-1A	**Seed Germination/Seedling Emergence**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
122-1B	**Vegetative Vigor**	A,B,C,H,I	Waived
122-2	**Aquatic Plant Growth**	A,B,C,H,I	Waived
123-1A	**Seed Germination/Seedling Emergence**	A,B,C,H,I	Waived
123-1B	**Vegetative Vigor**	A,B,C,H,I	Waived
123-2	**Aquatic Plant Growth**	A,B,C,H,I	Waived
124-1	**Terrestrial Field**	A,B,C,H,I	Waived
124-2	**Aquatic Field**	A,B,C,H,I	Waived
141-1	**Honey Bee Acute Contact**	A,B,C,H,I	Waived
141-2	**Honey Bee Residue on Foliage**	A,B,C,H,I	Waived
141-5	**Field Test for Pollinators**	A,B,C,H,I	Waived
TOXICOLOGY			
81-1	**Acute Oral Toxicity - Rat**	A,B,C,H,I	Satisfied
81-2	**Acute Dermal Toxicity - Rabbit/Rat**	A,B,C,H,I	Satisfied
81-3	**Acute Inhalation Toxicity - Rat**	A,B,C,H,I	Waived
81-4	**Primary Eye Irritation - Rabbit**	A,B,C,H,I	00138519
81-5	**Primary Dermal Irritation - Rabbit**	A,B,C,H,I	00138520
81-6	**Dermal Sensitization - Guinea Pig**	A,B,C,H,I	00138521
82-1A	**90-Day Feeding - Rodent**	A,B,C,H,I	Waived
82-1B	**90-Day Feeding - Non-rodent**	A,B,C,H,I	Waived
82-2	**21-Day Dermal - Rabbit/Rat**	A,B,C,H,I	00138524

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
84-2A	**Gene Mutation (Ames Test)**	A,B,C,H,I	Waived
84-2B	**Structural Chromosomal Aberration**	A,B,C,H,I	Waived
84-4	**Other Genotoxic Effects**	A,B,C,H,I	Waived
OCCUPATIONAL/RESIDENTIAL EXPOSURE			
231	**Estimation of Dermal Exposure at Outdoor Sites**	A,B,C,H,I	Satisfied
232	**Estimation of Inhalation Exposure at Outdoor Sites**	A,B,C,H,I	Waived
233	**Estimation of Dermal Exposure at Indoor Sites**	A,B,C,H,I	Satisfied
234	**Estimation of Inhalation Exposure at Indoor Sites**	A,B,C,H,I	Waived
ENVIRONMENTAL FATE			
160-5	**Chemical Identity**	A,B,C,H,I	Waived
161-1	**Hydrolysis**	A,B,C,H,I	Waived
161-2	**Photodegradation - Water**	A,B,C,H,I	Waived
161-3	**Photodegradation - Soil**	A,B,C,H,I	Waived
162-1	**Aerobic Soil Metabolism**	A,B,C,H,I	Waived
162-2	**Anaerobic Soil Metabolism**	A,B,C,H,I	Waived
162-3	**Anaerobic Aquatic Metabolism**	A,B,C,H,I	Waived
162-4	**Aerobic Aquatic Metabolism**	A,B,C,H,I	Waived
163-1	**Leaching/Adsorption/Desorption**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
163-2	**Volatility - Lab**	A,B,C,H,I	Waived
163-3	**Volatility - Field**	A,B,C,H,I	Waived
164-1	**Terrestrial Field Dissipation**	A,B,C,H,I	Waived
164-2	**Aquatic Field Dissipation**	A,B,C,H,I	Waived
164-3	**Forest Field Dissipation**	A,B,C,H,I	Waived
165-1	**Confined Rotational Crop**	A,B,C,H,I	Waived
RESIDUE CHEMISTRY			
171-4A	**Nature of Residue - Plants**	A,B,C,H,I	Waived
171-4B	**Nature of Residue - Livestock**	A,B,C,H,I	Waived
171-4C	**Residue Analytical Method - Plants**	A,B,C,H,I	Waived
171-4D	**Residue Analytical Method - Animal**	A,B,C,H,I	Waived
171-4E	**Storage Stability**	A,B,C,H,I	Waived
171-4F	**Magnitude of Residues - Potable H2O**	A,B,C,H,I	Waived
171-4G	**Magnitude of Residues in Fish**	A,B,C,H,I	Waived
171-4H	**Magnitude of Residues - Irrigated Crop**	A,B,C,H,I	Waived
171-4I	**Magnitude of Residues - Food Handling**	A,B,C,H,I	Waived
171-4J	**Magnitude of Residues - Meat/Milk/Poultry/Egg**	A,B,C,H,I	Waived
171-4K	**Crop Field Trials**	A,B,C,H,I	Waived

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Data Supporting Guideline Requirements for the Reregistration of XYLENOL

REQUIREMENT		USE PATTERN	CITATION(S)
171-4L	**Processed Food**	A,B,C,H,I	Waived
171-5	**Reduction of Residues**	A,B,C,H,I	Waived
171-6	**Proposed Tolerance**	A,B,C,H,I	Waived
171-7	**Support for Tolerance**	A,B,C,H,I	Waived
171-13	**Analtyical Reference Standard**	A,B,C,H,I	Waived

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APPENDIX C. Citations Considered to be Part of the Data Base Supporting the Reregistration of M-Cresol and Xylenol

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GUIDE TO APPENDIX C

1. CONTENTS OF BIBLIOGRAPHY. This bibliography contains citations of all studies considered relevant by EPA in arriving at the positions and conclusions stated elsewhere in the Reregistration Eligibility Document. Primary sources for studies in this bibliography have been the body of data submitted to EPA and its predecessor agencies in support of past regulatory decisions. Selections from other sources including the published literature, in those instances where they have been considered, are included.

2. UNITS OF ENTRY. The unit of entry in this bibliography is called a "study". In the case of published materials, this corresponds closely to an article. In the case of unpublished materials submitted to the Agency, the Agency has sought to identify documents at a level parallel to the published article from within the typically larger volumes in which they were submitted. The resulting "studies" generally have a distinct title (or at least a single subject), can stand alone for purposes of review and can be described with a conventional bibliographic citation. The Agency has also attempted to unite basic documents and commentaries upon them, treating them as a single study.

3. IDENTIFICATION OF ENTRIES. The entries in this bibliography are sorted numerically by Master Record Identifier, or "MRID number". This number is unique to the citation, and should be used whenever a specific reference is required. It is not related to the six-digit "Accession Number" which has been used to identify volumes of submitted studies (see paragraph 4(d)(4) below for further explanation). In a few cases, entries added to the bibliography late in the review may be preceded by a nine character temporary identifier. These entries are listed after all MRID entries. This temporary identifying number is also to be used whenever specific reference is needed.

4. FORM OF ENTRY. In addition to the Master Record Identifier (MRID), each entry consists of a citation containing standard elements followed, in the case of material submitted to EPA, by a description of the earliest known submission. Bibliographic conventions used reflect the standard of the American National Standards Institute (ANSI), expanded to provide for certain special needs.

   a Author. Whenever the author could confidently be identified, the Agency has chosen to show a personal author. When no individual was identified, the Agency has shown an identifiable laboratory or testing facility as the author. When no author or laboratory could be identified, the Agency has shown the first submitter as the author.

   b. Document date. The date of the study is taken directly from the document. When the date is followed by a question mark, the bibliographer has deduced the date from the evidence contained in the document. When the date appears

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as (19??), the Agency was unable to determine or estimate the date of the document.

c. Title. In some cases, it has been necessary for the Agency bibliographers to create or enhance a document title. Any such editorial insertions are contained between square brackets.

d. Trailing parentheses. For studies submitted to the Agency in the past, the trailing parentheses include (in addition to any self-explanatory text) the following elements describing the earliest known submission:

(1) Submission date. The date of the earliest known submission appears immediately following the word "received."

(2) Administrative number. The next element immediately following the word "under" is the registration number, experimental use permit number, petition number, or other administrative number associated with the earliest known submission.

(3) Submitter. The third element is the submitter. When authorship is defaulted to the submitter, this element is omitted.

(4) Volume Identification (Accession Numbers). The final element in the trailing parentheses identifies the EPA accession number of the volume in which the original submission of the study appears. The six-digit accession number follows the symbol "CDL," which stands for "Company Data Library." This accession number is in turn followed by an alphabetic suffix which shows the relative position of the study within the volume.

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BIBLIOGRAPHY

MRID	CITATION
00138519	Goyings, L.; Burr, W.; Kaczkofsky, H. (1967) Bacticin: Eye Irritation Study in the Rabbit: 231-9610-8. (Unpublished study received Aug 9, 1967 uder 1023-46; submitted by Upjohn Co., Kalamazoo, MI; CDL:005491-F)
00138520	Wazeter, F.; Buller, R.; Geil, R. (1966) Primary Skin Irritation in the Albino Rabbit: Experimental Bactericide P: 400-011; 231-9610-1. (Unpublished study received Aug 9, 1967 under 1023-46; prepared by International Research and Development Corp., submitted by Upjohn Co.,Kalamazoo, MI; CDL:005491-G)
00138521	Wazeter, F.; Buller, R.; Geil, R. (1966) Dermal Sensitization in the Guinea Pig: Experimental Bactericide P: 400-012; 231-9610-2. (Unpublished study received Aug 9, 1967 under 1023-46; prepared by International Research and Development Corp., submitted by Upjohn Co., Kalamazoo, MI; CDL:005491-H)
00138524	Wazeter, F.; Buller, R.; Geil, R.; et al. (1967) Three Week Repeat ed Dermal Application in Albino Rabbits: 400-046; 231-9610-9. (Unpublished study received Aug 9, 1967 under 1023-46; prepared by International Research and Development Corp., submitted by Upjohn Co., Kalamazoo, MI; CDL:005491-K)
--------	Bushy Run Research Center. 1988. Developmental Toxicity Evaluation of o-, m-, or p-Cresol Administered by Gavage to Sprague Dawley (CD) Rats. Unpublished study submitted to EPA/OTS (Fiche no. OTSO517695).
--------	Bushy Run Research Center. 1989. Two-Generation Reproduction Study of m-Cresol (CAS No. 108-39-4) Administered by Gavage to Sprague-Dawley (CD) Rats. Report No. 51-634. Unpublished study submitted to EPA/OTS by the Chemical Manufacturers Assoc. Cresols Panel.
--------	Dietz, D.D. 1992. CRC Handbook of Chemistry.
--------	Hazleton Laboratories. 1988a. Mutagenicity Test on Meta-Cresol in a Mouse Lymphoma Mutation Assay. Study No. 10003-0-431. Unpublished study submitted to EPA/OTS.

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BIBLIOGRAPHY

MRID	CITATION
--------	Hazleton Laboratories. 1988b. Mutagenicity Test on Meta-Cresol in the Rat Primary Hepatocyte Unscheduled DNA Synthesis Assay. Study No. 10002-0-447. Unpublished study submitted to EPA/OTS.
--------	Hazleton Laboratories. 1988c. Mutagenicity Test on Meta-Cresol in an in Vitro Cytogenetic Assay Measuring Chromosomal Aberration Frequencies in Chinese Hamster Ovary (CHO) Cells. Study No. 10003-0-437. Unpublished study submitted to EPA/OTS.
--------	Hazleton Laboratories. 1988d. Genetic Toxicology Test on Meta-Cresol in the In Vitro Transformation of BALB/C-3T3 Cells Assay. Study No. 10002-0-441. Unpublished study submitted to EPA/OTS.
--------	Hazleton Laboratories. 1989. Mutagenicity Test on Cresol Program Panel Sample #2 Meta-Cresol in the Mouse Bone Marrow Cytogenetic Assay. Study No. 10002-0-451. Unpublished study submitted to EPA/OTS.
--------	Health and Human Services. 1992. Toxicological Profile for Cresols. PHS. TP-91/11.
--------	Izard, M.K.; George, J.D.; Fail, P.A.; Grizzle, T.B. 1992. Reproductive Toxicity of Meta-/Para-Cresol (MPCRE) in CD-1 Swiss Mice. Study No. NTP89-RACB-85. Study conducted for National Toxicology Program.
--------	Ride, D. Handbook of Chemistry and Physics. 71st edition. (CRC Press, FL).
--------	Sax, N.I., and Lewis, R.J. SR, (1989) Dangerous Properties of Industrial Materials, 7th Edition. Van Nostrand Reinhold, NY.
--------	Toxicity Studies of Cresols in F344/N Rats and B6C3F1 Mice. NTP TOX 9. Studies conducted by the National Toxicology Program.
--------	Windholz, S., Budavari, R. and E. Otterbein (eds.). Merck Index. 10th edition. (Merck & Co., Inc. 1983).

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APPENDIX D. List of Available Related Documents

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The following is a list of available documents related to M-Cresol and Xylenol. It's purpose is to provide a path to more detailed information if it is needed. These accompanying documents are part of the Administrative Record for M-Cresol and Xylenol and are included in the EPA's Office of Pesticide Programs Public Docket.

1. Health and Environmental Effects Science Chapters

2. Detailed Label Usage Information System (LUIS) Report

3. M-Cresol and Xylenol RED Fact Sheet

4. PR Notice 86-5 (included in this appendix)

5. PR Notice 91-2 (included in this appendix) pertains to the Label Ingredient Statement

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APPENDIX E. PR Notices 86-5 and 91-2

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PR Notice 86-5

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

July 29, 1986

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

PR NOTICE 86-5

NOTICE TO PRODUCERS, FORMULATORS, DISTRIBUTORS
AND REGISTRANTS

Attention: Persons responsible for Federal registration of pesticides.

Subject: Standard format for data submitted under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and certain provisions of the Federal Food, Drug, and Cosmetic Act (FFDCA).

I. Purpose

To require data to be submitted to the Environmental Protection Agency (EPA) in a standard format. This Notice also provides additional guidance about, and illustrations of, the required formats.

II. Applicability

This PR Notice applies to all data that are submitted to EPA to satisfy data requirements for granting or maintaining pesticide registrations, experimental use permits, tolerances, and related approvals under certain provisions of FIFRA and FFDCA. These data are defined in FIFRA §10(d)(1). This Notice does not apply to commercial, financial, or production information, which are, and must continue to be, submitted differently under separate cover.

III. Effective Date

This notice is effective on November 1, 1986. Data formatted according to this notice may be submitted prior to the effective date. As of the effective date, submitted data packages that do not conform to these requirements may be returned to the submitter for necessary revision.

IV. Background

On September 26, 1984, EPA published proposed regulations in the Federal Register (49 FR 37956) which include Requirements for Data Submission (40 CFR §158.32), and Procedures for Claims of Confidentiality of Data (40 CFR §158.33). These regulations specify the format for data submitted to EPA under Section 3 of FIFRA and Sections 408 and 409 of FFDCA, and procedures which must be followed to make and substantiate claims of confidentiality. No entitlements to data confidentiality are changed, either by the proposed regulation or by this notice.

OPP is making these requirements mandatory through this Notice to gain resource-saving benefits from their use before the

entire proposed regulation becomes final. Adequate lead time is being provided for submitters to comply with the new requirements.

V. Relationship of this Notice to Other OPP Policy and Guidance

While this Notice contains requirements for organizing and formatting submittals of supporting data, it does not address the substance of test reports themselves. "Data reporting" guidance is now under development in OPP, and will specify how the study objectives, protocol, observations, findings, and conclusions are organized and presented within the study report. The data reporting guidance will be compatible with submittal format requirements described in this Notice.

OPP has also promulgated a policy (PR Notice 86-4 dated April 15, 1986) that provides for early screening of certain applications for registration under FIFRA §3. The objective of the screen is to avoid the additional costs and prolonged delays associated with handling significantly incomplete application packages. As of the effective date of this Notice, the screen will include in its criteria for acceptance of application packages the data formatting requirements described herein.

OPP has also established a public docket which imposes deadlines for inserting into the docket documents submitted in connection with Special Reviews and Registration Standards (see 40 CFR §154.15 and §155.32). To meet these deadlines, OPP is requiring an additional copy of any data submitted to the docket. Please refer to Page 10 for more information about this requirement.

For several years, OPP has required that each application for registration or other action include a list of all applicable data requirements and an indication of how each is satisfied--the statement of the method of support for the application. Typically, many requirements are satisfied by reference to data previously submitted--either by the applicant or by another party. That requirement is not altered by this notice, which applies only to data submitted with an application.

VI. Format Requirements

A more detailed discussion of these format requirements follows the index on the next page, and samples of some of the requirements are attached. Except for the language of the two alternative forms of the Statement of Data Confidentiality Claims (shown in Attachment 3) which cannot be altered, these samples are illustrative. As long as the required information is included and clearly identifiable, the form of the samples may be altered to reflect the submitter's preference.

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D. 4 Supplemental Statement of Data Confidentiality Claims (other than those based on FIFRA §10(d)(1)) 8 14
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A. Organization of Submittal Package

A "submittal package" consists of all studies submitted at the same time for review in support of a single regulatory action, along with a transmittal document and other related administrative material (e.g. the method of support statement, EPA Forms 8570-1, 8570-4, 8570-20, etc.) as appropriate.

Data submitters must organize each submittal package as described in this Notice. The transmittal and any other administrative material must be grouped together in the first physical volume. Each study included in the submittal package must then be bound separately.

Submitters sometimes provide additional materials that are intended to clarify, emphasize, or otherwise comment to help Product Managers and reviewers better understand the submittal.

- If such materials relate to one study, they should be included as an appendix to that study.

- If such materials relate to more than one study (as for example a summary of all studies in a discipline) or to the submittal in general, they must be included in the submittal package as a separate study (with title page and statement of confidentiality claims).

B. Transmittal Document

The first item in each submittal package must be a transmittal document. This document identifies the submitter or all joint submitters; the regulatory action in support of which the package is being submitted--i.e., a registration application, petition, experimental use permit (EUP), §3(c)(2)(B) data call-in, §6(a)(2) submittal, or a special review; the transmittal date; and a list of all individual studies included in the package in the order of their appearance, showing (usually by Guideline reference number) the data requirement(s) addressed by each one. The EPA-assigned number for the regulatory action (e.g. the registration, EUP, or tolerance petition number) should be included in the transmittal document as well, if it is known to the submitter. See Attachment 1 for an example of an acceptable transmittal document.

The list of included studies in the transmittal of a data submittal package supporting a registration application should be subdivided by discipline, reflecting the order in which data requirements appear in 40 CFR 158.

The list of included studies in the transmittal of a data submittal package supporting a petition for tolerance or an

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application for an EUP should be subdivided into sections A, B, C,... of the petition or application, as defined in 40 CFR 180.7 and 158.125, (petitions) or Pesticide Assessment Guidelines, Subdivision I (EUPs) as appropriate.

When a submittal package supports a tolerance petition and an application for a registration or an EUP, list the petition studies first, then the balance of the studies. Within these two groups of studies follow the instructions above.

C. Individual Studies

A study is the report of a single scientific investigation, including all supporting analyses required for logical completeness. A study should be identifiable and distinguishable by a conventional bibliographic citation including author, date, and title. Studies generally correspond in scope to a single Guideline requirement for supporting data, with some exceptions discussed in section C.1. Each study included in a submittal package must be bound as a separate entity. (See comments on binding studies on page 9.)

Each study must be consecutively paginated, beginning from the title page as page 1. The total number of pages in the complete study must be shown on the study title page. In addition (to ensure that inadvertently separated pages can be reassociated with the proper study during handling or review) use either of the following:

- Include the total number of pages in the complete study on each page (i.e., 1 of 250, 2 of 250, ...250 of 250).

- Include a company name or mark and study number on each page of the study, e g , Company Name-1986-23. Never reuse a study number for marking the pages of subsequent studies.

When a single study is extremely long, binding it in multiple volumes is permissible so long as the entire study is paginated in a single series, and each volume is plainly identified by the study title and its position in the multi-volume sequence.

C.1 Special Considerations for Identifying Studies

Some studies raise special problems in study identification, because they address Guidelines of broader than normal scope or for other reasons.

a. Safety Studies. Several Guidelines require testing for safety in more than one species. In these cases each species tested should be reported as a separate study, and bound separately.

Extensive supplemental reports of pathology reviews, feed analyses, historical control data, and the like are often associated with safety studies. Whenever possible these should be submitted with primary reports of the study, and bound with the primary study as appendices. When such supplemental reports are submitted independently of the primary report, take care to fully identify the primary report to which they pertain.

Batteries of acute toxicity tests, performed on the same end use product and covered by a single title page, may be bound together and reported as a single study.

b. Product Chemistry Studies. All product chemistry data within a submittal package submitted in support of an end-use product produced from registered manufacturing-use products should be bound as a single study under a single title page.

Product chemistry data submitted in support of a technical product, other manufacturing-use product, an experimental use permit, an import tolerance petition, or an end-use product

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produced from unregistered source ingredients, should be bound as a single study for each Guideline series (61, 62, and 63) for conventional pesticides, or for the equivalent subject range for biorational pesticides. The first of the three studies in a complete product chemistry submittal for a biochemical pesticide would cover Guidelines 151-10, 151-11, and 151-12; the second would cover Guidelines 151-13, 151-15, and 151-16; the third would cover Guideline 151-17. The first study for a microbial pesticide would cover Guidelines 151-20, 151-21, and 151-22; the second would cover Guidelines 151-23 and 151-25; the third would cover Guideline 151-26.

Note particularly that product chemistry studies are likely to contain Confidential Business Information as defined in FIFRA §10(d)(1)(A), (B), or (C), and if so must be handled as described in section D.3. of this notice.

c. Residue Chemistry Studies. Guidelines 171-4, 153-3, and 153-4 are extremely broad in scope; studies addressing residue chemistry requirements must thus be defined at a level below that of the Guideline code. The general principle, however, of limiting a study to the report of a single investigation still applies fully. Data should be treated as a single study and bound separately for each analytical method, each report of the nature of the residue in a single crop or animal species, and for each report of the magnitude of residues resulting from treatment of a single crop or from processing a single crop. When more than one commodity is derived from a single crop (such as beet tops and beet roots) residue data on all such commodities should be reported as a single study. When multiple field trials are associated with a single crop, all such trials should be reported as a single study.

D. Organization of Each Study Volume

Each complete study must include all applicable elements in the list below, in the order indicated. (Also see Page 17.) Several of these elements are further explained in the following paragraphs. Entries in the column headed "example" cite the page number of this notice where the element is illustrated.

Element	When Required	Example
Study Title Page	Always	Page 12
Statement of Data Confidentiality Claims	One of the two alternative forms of this statement is always required	Page 13
Certification of Good Laboratory Practice	If study reports laboratory work subject to GLP requirements	Page 16
Flagging statements	For certain toxicology studies (When flagging requirements are finalized.)	
Body of Study	Always - with an English language translation if required.	
Study Appendices	At submitter's option	
Cover Sheet to Confidential Attachment	If CBI is claimed under FIFRA §10(d)(1)(A), (B), or (C)	
CBI Attachment	If CBI is claimed under FIFRA §10(d)(1)(A), (B), or (C)	Page 15
Supplemental Statement of Data Confidentiality Claims	Only if confidentiality is claimed on a basis other than FIFRA §10(d)(1)(A), (B), or (C)	Page 14

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D.1. Title Page

A title page is always required for each submitted study, published or unpublished. The title page must always be freely releasable to requestors; **DO NOT INCLUDE CBI ON THE TITLE PAGE**. An example of an acceptable title page is on page 12 of this notice. The following information must appear on the title page:

a. Study title. The study title should be as descriptive as possible It must clearly identify the substance(s) tested and correspond to the name of the data requirement as it appears in the Guidelines.

b. Data requirement addressed. Include on the title page the Guideline number(s) of the specific requirement(s) addressed by the study.

c. Author(s). Cite only individuals with primary intellectual responsibility for the content of the study. Identify them plainly as authors, to distinguish them from the performing laboratory, study sponsor, or other names that may also appear on the title page.

d. Study Date. The title page must include a single date for the study. If parts of the study were performed at different times, use only the date of the latest element in the study.

e. Performing Laboratory Identification. If the study reports work done by one or more laboratories, include on the title page the name and address of the performing laboratory or laboratories, and the laboratory's internal project number(s) for the work. Clearly distinguish the laboratory's project identifier from any other reference numbers provided by the study sponsor or submitter.

f. Supplemental Submissions. If the study is a commentary on or supplement to another previously submitted study, or if it responds to EPA questions raised with respect to an earlier study, include on the title page elements a. through d. for the previously submitted study, along with the EPA Master Record Identifier (MRID) or Accession number of the earlier study if you know these numbers. (Supplements submitted in the same submittal package as the primary study should be appended to and bound with the primary study. Do not include supplements to more than one study under a single title page).

g. Facts of Publication. If the study is a reprint of a published document, identity on the title page all relevant facts of publication, such as the journal title, volume, issue, inclusive page numbers, and publication date.

D.2. Statements of Data Confidentiality Claims Under FIFRA §10(d)(1).

Each submitted study must be accompanied by one of the two alternative forms of the statement of Data Confidentiality Claims specified in the proposed regulation in §158.33 (b) and (c) (See Attachment 3). These statements apply only to claims of data confidentiality based on FIFRA §10(d)(1)(A), (B), or (C). Use the appropriate alternative form of the statement either to assert a claim of §10(d)(1) data confidentiality (§158.33(b)) or to waive such a claim (§158.33(c)). In either case, the statement must be signed and dated, and must include the typed name and title of the official who signs it. Do not make CBI

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claims with respect to analytical methods associated with petitions for tolerances or emergency exemptions (see NOTE Pg 13).

D.3. Confidential Attachment

If the claim is made that a study includes confidential business information as defined by the criteria of FIFRA §10(D)(1)(A), (B), or (C) (as described in D.2. above) all such information must be excised from the body of the study and confined to a separate study-specific Confidential Attachment. Each passage of CBI so isolated must be identified by a reference number cited within the body of the study at the point from which the passage was excised (See Attachment 5).

The Confidential Attachment to a study must be identified by a cover sheet fully identifying the parent study, and must be clearly marked "Confidential Attachment." An appropriately annotated photocopy of the parent study title page may be used as this cover sheet. Paginate the Confidential Attachment separately from the body of the study, beginning with page 1 of X on the title page. Each passage confined to the Confidential Attachment must be associated with a specific cross reference to the page(s) in the main body of the study on which it is cited, and with a reference to the applicable passage(s) of FIFRA §10(d)(1) on which the confidentiality claim is based.

D.4. Supplemental Statement of Data Confidentiality Claims (See Attachment 4)

If you wish to make a claim of confidentiality for any portion of a submitted study other than described by FIFRA §10(d)(1)(A), (B), or (C), the following provisions apply:

- The specific information to which the claim applies must be clearly marked in the body of the study as subject to a claim of confidentiality.

- A Supplemental Statement of Data Confidentiality Claims must be submitted, identifying each passage claimed confidential and describing in detail the basis for the claim. A list of the points to address in such a statement is included in Attachment 4 on Pg 14.

- The Supplemental Statement of Data Confidentiality Claims must be signed and dated and must include the typed name and title of the official who signed it.

D.5. Good Laboratory Practice Compliance Statement

This statement is required if the study contains laboratory work subject to GLP requirements specified in 40 CFR 160. Samples of these statements are shown in Attachment 6.

E. Reference to Previously Submitted Data

DO NOT RESUBMIT A STUDY THAT HAS PREVIOUSLY BEEN SUBMITTED FOR ANOTHER PURPOSE unless EPA specifically requests it. A copy of the title page plus the MRID number (if known) is sufficient to allow us to retrieve the study immediately for review. This prevents duplicate entries in the Agency files, and saves you the cost of sending more copies of the study. References to previously submitted studies should not be included in the transmittal document, but should be incorporated into the statement of the method of support for the application.

F. Physical Format Requirements

All elements in the data submittal package must be on uniform 8 1/2 by 11 inch white paper, printed on one side only in black ink, with high contrast and good resolution. Bindings for individual studies must be secure, but easily removable to permit

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disassembly for microfilming. Check with EPA for special instructions before submitting data in any medium other than paper, such as film or magnetic media.

Please be particularly attentive to the following points:

- Do not include frayed or torn pages.
- Do not include carbon copies, or copies in other than black ink.
- Make sure that photocopies are clear, complete, and fully readable.
- Do not include oversize computer printouts or fold-out pages.
- Do not bind any documents with glue or binding tapes.
- Make sure that all pages of each study, including any attachments or appendices, are present and in correct sequence.

Number of Copies Required - All submittal packages except those associated with a Registration Standard or Special Review (See Part G below) must be provided ln three complete, identical copies. (The proposed regulations specified two copies; three are now being required to expedite and reduce the cost of processing data into the OPP Pesticide Document Management System and getting it into review.)

G. Special Requirements for Submitting Data to the Docket

Data submittal packages associated with a Registration Standard or Special Review must be provided in four copies, from one of which all material claimed as CBI has been excised. This fourth copy will become part of the public docket for the RS or SR case. If no claims of confidentiality are made for the study, the fourth copy should be identical to the other three. When portions of a study submitted in support of an RS or SR are claimed as CBI, the first three copies will include the CBI material as provided in section D of this notice. The following special preparation is required for the fourth copy.

- Remove the "Supplemental Statement of Data Confidentiality Claims".
- Remove the "Confidential Attachment".
- Excise from the body of the study any information you claim as confidential, even if it does not fall within the scope of FIFRA §10(d)(1)(A), (B), or (C). Do not close up or paraphrase text remaining after this excision.
- Mark the fourth copy plainly on both its cover and its title page with the phrase "Public Docket Material - contains no information claimed as confidential".

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V. For Further Information

For further information contact John Carley, Chief, Information Services Branch, Program Management and Support Division, (703) 305-5240.

/S/

James W. Akerman
Acting Director,
Registration Division

Attachment 1. Sample Transmittal Document
Attachment 2. Sample Title Page for a Newly Submitted Study
Attachment 3. Statements of Data Confidentiality Claims
Attachment 4. Supplemental Statement of Data Confidentiality Claims
Attachment 5. Samples of Confidential Attachments
Attachment 6. Sample Good Laboratory Practice Statements
Attachment 7. Format Diagrams for Submittal Packages and Studies

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ATTACHMENT 1

ELEMENTS TO BE INCLUDED IN THE TRANSMITTAL DOCUMENT*

1. Name and address of submitter (or all joint submitters**)

†Smith Chemical Corporation 1234 West Smith Street Cincinnati, OH 98765	-and-	Jones Chemical Company 5678 Wilson Blvd Covington, KY 56789

†Smith Chemical Corp will act as sole agent for all submitters.

2. Regulatory action in support of which this package is submitted

Use the EPA identification number (e.g. 359-EUP-67) if you know it. Otherwise describe the type of request (e.g. experimental use permit, data call-in - of xx-xx-xx date).

3. Transmittal date

4. List of submitted studies

Vol 1. Administrative materials - forms, previous correspondence with Project Managers, and so forth.

Vol 2. Title of first study in the submittal (Guideline No.)

Vol n Title of nth study in the submittal (Guideline No.)

* Applicants commonly provide this information in a transmittal letter. This remains an acceptable practice so long as all four elements are included.

* Indicate which of the joint submitters is empowered to act on behalf of all joint submitters in any matter concerning data compensation or subsequent use or release of the data.

Company Official: _____ _____
Name Signature

Company Name _____

Company Contact: _____ _____
Name Phone

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ATTACHMENT 2

SAMPLE STUDY TITLE PAGE FOR A NEWLY SUBMITTED STUDY

Study Title

(Chemical name) - Magnitude of Residue on Corn

Data Requirement

Guideline 171-4

Author

John C. Davis

Study Completed On

January 5, 1979

Performing Laboratory

ABC Agricultural Laboratories
940 West Bay Drive
Wilmington, CA 39897

Laboratory Project ID

ABC 47-79

Page 1 of X
(X is the total number of pages in the study)

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ATTACHMENT 3

STATEMENTS OF DATA CONFIDENTIALITY CLAIMS

1. No claim of confidentiality under FIFRA §10(d)(1)(A),(B), or (C).

STATEMENT OF NO DATA CONFIDENTIALITY CLAIMS

No claim of confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA 6§10(d)(1)(A), (B), or (C).

Company _____

Company Agent: _____ Typed Name _____ Date:_____

_____ Title _____ _____ Signature _____

2. Claim of confidentiality under FIFRA §10(d)(1)(A), (B), or (C).

Information claimed confidential on the basis of its falling within the scope of FIFRA §10(d)(1)(A), (B), or (C) has been removed to a confidential appendix, and is cited by cross-reference number in the body of the study.

Company: _____

Company Agent: _____ Typed Name _____ Date:_____

_____ Title _____ Signature _____

STATEMENT OF DATA CONFIDENTIALITY CLAIMS

NOTE: Applicants for permanent or temporary tolerances should note that it is OPP policy that no permanent tolerance, temporary tolerance, or request for an emergency exemption incorporating an analytical method, can be approved unless the applicant waives all claims of confidentiality for the analytical method. These analytical methods are published in the FDA Pesticide Analytical Methods Manual, and therefore cannot be claimed as confidential. OPP implements this policy by returning submitted analytical methods, for which confidentiality claims have been made, to the submitter, to obtain the confidentiality waiver before they can be processed.

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ATTACHMENT 4

SUPPLEMENTAL STATEMENT OF DATA CONFIDENTIALITY CLAIMS

For any portion of a submitted study that is not described by FIFRA §10(d)(1)(A), (B), or (C), but for which you claim confidential treatment on another basis, the following information must be included within a Supplemental Statement of Data Confidentiality Claims:

- Identify specifically by page and line number(s) each portion of the study for which you claim confidentiality.
- Cite the reasons why the cited passage qualifies for confidential treatment.
- Indicate the length of time--until a specific date or event, or permanently--for which the information should be treated as confidential.
- Identify the measures taken to guard against undesired disclosure of this information.
- Describe the extent to which the information has been disclosed, and what precautions have been taken in connection with those disclosures.
- Enclose copies of any pertinent determinations of confidentiality made by EPA, other Federal agencies, of courts concerning this information.
- If you assert that disclosure of this information would be likely to result in substantial harmful effects to you, describe those harmful effects and explain why they should be viewed as substantial.
- If you assert that the information in voluntarily submitted, indicate whether you believe disclosure of this information might tend to lessen the availability to EPA of similar information in the future, and if so, how.

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ATTACHMENT 5

EXAMPLES OF SEVERAL CONFIDENTIAL ATTACHMENTS

Example 1. (Confidential word or phrase that has been deleted from the study)

CROSS REFERENCE NUMBER 1 — This cross reference number is used in the study in place of the following paragraph(s) at the indicated volume and page references.

DELETED WORDS OR PHRASE: Ethylene Glycol

PAGE	LINES	REASON FOR THE DELETION	FIFRA REFERENCE
6	14	Identity of Inert Ingredient	§10(d)(C)
28	25	"	"
100	19	"	"

Example 2. (Confidential paragraph(s) that have been deleted from the study)

CROSS REFERENCE NUMBER 5 — This cross reference number is used in the study in place of the following paragraph(s) at the indicated volume and page references.

DELETED PARAGRAPH(S):

( )
(Reproduce the deleted paragraph(s) here)
( )

PAGE	LINES	REASON FOR THE DELETION	FIFRA REFERENCE
20.	2-17	Description of the quality control process	§10(d)(1)(C)

Example 3. (Confidential pages that have been deleted from the study)

CROSS REFERENCE NUMBER 7 — This cross reference number is used in the study in place of the following paragraph(s) at the indicated volume and page references.

DELETED PAGES(S): are attached immediately behind this page

PAGES	REASON FOR THE DELETION	FIFRA REFERENCE
35-41.	Description of product manufacturing process	§10(d)(1)(A)

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ATTACHMENT 6.

SAMPLE GOOD LABORATORY PRACTICE STATEMENTS

Example 1.

```
This study meets the requirements for 40 CFR Part 160

      Submitter _____________________________________________________

      Sponsor   _____________________________________________________
```

Example 2.

```
This study does not meet the requirements of 40 CFR Part 160, and
differs in the following ways:

1._____________________________________________

2._____________________________________________

3._____________________________________________

      Submitter_____________________________________

      Sponsor_______________________________________

      Study Director_________________________________
```

Example 3.

```
The submitter of this study was neither the sponsor of this study nor
conducted it, and does not know whether it has been conducted in
accordance with 40 CFR Part 160.

      Submitter_____________________________________________________
```


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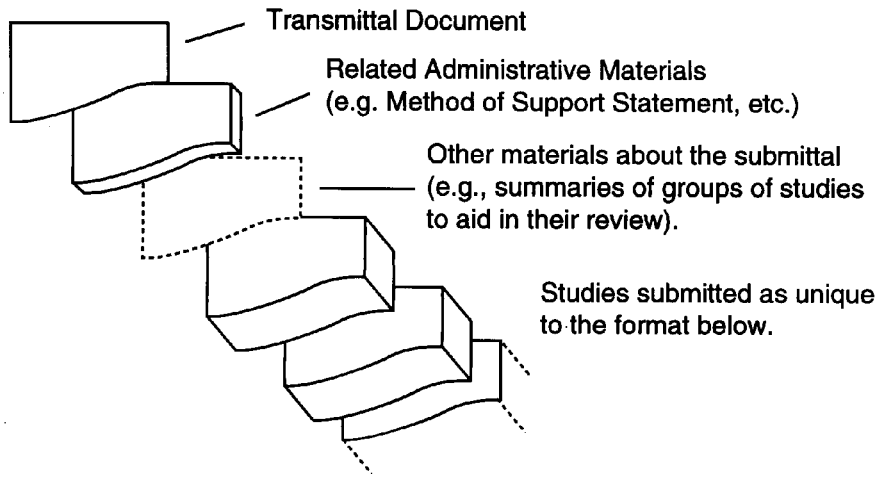
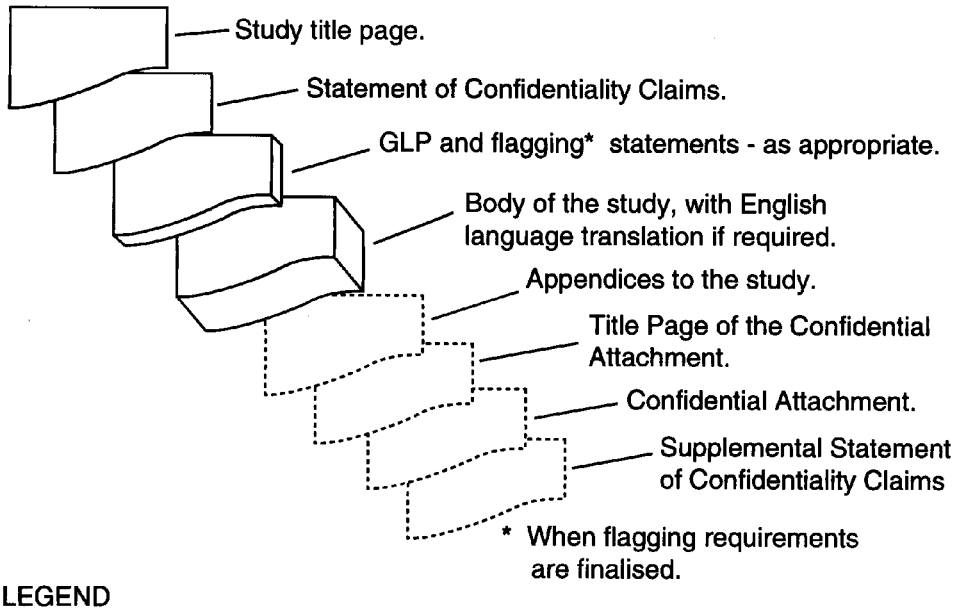
ATTACHMENT 7.

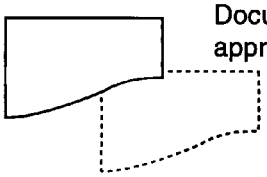
FORMAT OF THE SUBMITTAL PACKAGE



FORMAT OF SUBMITTED STUDIES



LEGEND



Documents which must be submitted as appropriate to meet established requirements.

Documents submitted at submitter's option.

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PR Notice 91-2

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

PR NOTICE 91-2

NOTICE TO MANUFACTURERS, PRODUCERS, FORMULATORS, AND REGISTRANTS OF PESTICIDES

ATTENTION: Persons Responsible for Federal Registration of Pesticide Products.

SUBJECT: Accuracy of Stated Percentages for Ingredients Statement

I. PURPOSE:

The purpose of this notice is to clarify the Office of Pesticide Program's policy with respect to the statement of percentages in a pesticide's label's ingredient statement. Specifically, the amount (percent by weight) of ingredient(s) specified in the ingredient statement on the label must be stated as the nominal concentration of such ingredient(s), as that term is defined in 40 CFR 158.153(i). Accordingly, the Agency has established the nominal concentration as the only acceptable label claim for the amount of active ingredient in the product.

II. BACKGROUND

For some time the Agency has accepted two different methods of identifying on the label what percentage is claimed for the ingredient(s) contained in a pesticide. Some applicants claimed a percentage which represented a level between the upper and the lower certified limits. This was referred to as the nominal concentration. Other applicants claimed the lower limit as the percentage of the ingredient(s) that would be expected to be present in their product at the end of the product's shelf-life. Unfortunately, this led to a great deal of confusion among the regulated industry, the regulators, and the consumers as to exactly how much of a given ingredient was in a given product. The Agency has established the nominal concentration as the only acceptable label claim for the amount of active ingredient in the product.

Current regulations require that the percentage listed in the active ingredient statement be as precise as possible reflecting good manufacturing practices 40 CFR 156.10(g)(5). The certified limits required for each active ingredient are intended to encompass any such "good manufacturing practice" variations 40 CFR 158.175(c)(3).

The upper and lower certified limits, which must be proposed in connection with a product's registration, represent the amounts of an ingredient that may legally be present 40 CFR 158.175. The lower certified limit is used as the enforceable lower limit for the product composition according to FIFRA section 12(a)(1)(C), while the nominal concentration appearing on the label would be the routinely achieved concentration used for calculation of dosages and dilutions.

The nominal concentration would in fact state the greatest degree of accuracy that is warranted with respect to actual

product composition because the nominal concentration would be the amount of active ingredient typically found in the product.

It is important for registrants to note that certified limits for active ingredients are not considered to be trade secret information under FIFRA section l0(b). In this respect the certified limits will be routinely provided by EPA to States for enforcement purposes, since the nominal concentration appearing on the label may not represent the enforceable composition for purposes of section 12(a)(1)(C).

III. REQUIREMENTS

As described below under Unit V. " **COMPLIANCE SCHEDULE,"** all currently registered products as well as all applications for new registration must comply with this Notice by specifying the nominal concentration expressed as a percentage by weight as the label claim in the ingredient(s) statement and equivalence statements if applicable (e.g., elemental arsenic, metallic zinc, salt of an acid). In addition, the requirement for performing sample analyses of five or more representative samples must be fulfilled. Copies of the raw analytical data must be submitted with the nominal ingredient label claim. Further information about the analysis requirement may be found in the 40 CFR 158.170. All products are required to provide certified limits for each active, inert ingredient, impurities of toxicological significance(i.e., upper limit(s) only) and on a case by case basis as specified by EPA. These limits are to be **set based on representative sampling** and chemical analysis(i.e., quality control) of the product.

The format of the ingredient statement must conform to 40 CFR 156-Labeling Requirements For Pesticides and Devices.

After July 1, 1997, all pesticide ingredient StatementS must be changed to nominal concentration.

IV. PRODUCTS THAT REQUIRE EFFICACY DATA

All pesticides are required to be efficacious. Therefore, the certified lower limits may not be lower then the minimum level to achieve efficacy. This is extremely important for products which are intended to control pests which threaten the public health, e.g., certain antimicrobial and rodenticide products. Refer to 40 CFR 153.640.

In those cases where efficacy limits have been established, the Agency will not accept certified lower limits which are below that level for the shelf life of the product.

V. COMPLIANCE SCHEDULE

As described earlier, the purpose of this Notice is to make the registration process more uniform and more manageable for both the agency and the regulated community. It is the Agency's intention to implement the requirements of this notice as smoothly as possible so as not to disrupt or delay the Agency's high priority programs, i.e., reregistration, new chemical, or fast track (FIFRA section 3(c)(3)(B). Therefore, applicants/registrants are expected to comply with the requirements of this Notice as follows:

(1) Beginning July 1, 1991, all new product registrations submitted to the Agency are to comply with the requirements of this Notice.

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(2) Registrants having products subject to reregistration under FIFRA section 4(a) are to comply with the requirements of this Notice when specific products are called in by the Agency under Phase V of the Reregistration Program.

(3) All other products/applications that are not subject to (1) and (2) above will have until July 1, 1997, to comply with this Notice. Such applications should note "Conversion to Nominal Concentrations on the application form. These types Or amendments will not be handled as "Fast Track" applications but will be handled as routine requests.

VI. FOR FURTHER INFORMATION

Contact Tyrone Aiken for information or questions concerning this notice on (703) 308-7031.

/s/
Anne E. Lindsay, Director
Registration Division (H-7505C)

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APPENDIX F. Product Specific Data Call-In

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DATA CALL-IN NOTICE

CERTIFIED MAIL

Dear Sir or Madam:

This Notice requires you and other registrants of pesticide products containing the active ingredient identified in Attachment 1 of this Notice, the Data Call-In Chemical Status Sheet, to submit certain product specific data as noted herein to the U.S. Environmental Protection Agency (EPA, the Agency). These data are necessary to maintain the continued registration of your product(s) containing this active ingredient. Within 90 days after you receive this Notice you must respond as set forth in Section III below. Your response must state:

1. How you will comply with the requirements set forth in this Notice and its Attachments A through G; or

2. Why you believe you are exempt from the requirements listed in this Notice and in Attachment 3, Requirements Status and Registrant's Response Form, (see section III-B); or

3. Why you believe EPA should not require your submission of product specific data in the manner specified by this Notice (see section III-D).

If you do not respond to this Notice, or if you do not satisfy EPA that you will comply with its requirements or should be exempt or excused from doing so, then the registration of your product(s) subject to this Notice will be subject to suspension. We have provided a list of all of your products subject to this Notice in Attachment 2, Data Call-In Response Form, as well as a list of all registrants who were sent this Notice (Attachment 6).

The authority for this Notice is section 3(c)(2)(B) of the Federal Insecticide, Fungicide and Rodenticide Act as amended (FIFRA), 7 U.S.C. section 136a(c)(2)(B). Collection of this information is authorized under the Paperwork Reduction Act by OMB Approval No. 2070-0107 (expiration date 12-31-92).

This Notice is divided into six sections and seven Attachments. The Notice itself contains information and instructions applicable to all Data Call-In Notices. The Attachments contain specific chemical information and instructions. The six sections of the Notice are:

Section I - Why You Are Receiving This Notice
Section II - Data Required By This Notice
Section III - Compliance With Requirements Of This Notice
Section IV - Consequences Of Failure To Comply With This Notice

Section V - Registrants' Obligation To Report Possible Unreasonable Adverse Effects
Section VI - Inquiries And Responses To This Notice

The Attachments to this Notice are:

1 - Data Call-In Chemical Status Sheet
2 - Product-Specific Data Call-In Response Form
3 - Requirements Status and Registrant's Response Form
4 - EPA Grouping of End-Use Products for Meeting Acute Toxicology Data Requirements for Reregistration
5 - EPA Acceptance Criteria
6 - List of Registrants Receiving This Notice
7 - Cost Share and Data Compensation Forms, and Product Specific Data Report Form

SECTION I. WHY YOU ARE RECEIVING THIS NOTICE

The Agency has reviewed existing data for this active ingredient and reevaluated the data needed to support continued registration of the subject active ingredient. The Agency has concluded that the only additional data necessary are product specific data. No additional generic data requirements are being imposed. You have been sent this Notice because you have product(s) containing the subject active ingredient.

SECTION II. DATA REQUIRED BY THIS NOTICE

II-A. DATA REQUIRED

The product specific data required by this Notice are specified in Attachment 3, Requirements Status and Registrant's Response Form. Depending on the results of the studies required in this Notice, additional testing may be required.

II-B. SCHEDULE FOR SUBMISSION OF DATA

You are required to submit the data or otherwise satisfy the data requirements specified in Attachment 3, Requirements Status and Registrant's Response Form, within the time frames provided.

II-C. TESTING PROTOCOL

All studies required under this Notice must be conducted in accordance with test standards outlined in the Pesticide Assessment Guidelines for those studies for which guidelines have been established.

These EPA Guidelines are available from the National Technical Information Service (NTIS), Attn: Order Desk, 5285 Port Royal Road, Springfield, Va 22161 (tel: 703-487-4650).

Protocols approved by the Organization for Economic Cooperation and Development (OECD) are also acceptable if the OECD-recommended test standards conform to those specified in the Pesticide Data Requirements regulation (40 CFR § 158.70). When using the OECD protocols, they should be modified as appropriate so that the data generated by the study will satisfy the requirements of 40 CFR § 158. Normally, the Agency will not extend deadlines for complying with data requirements when the studies were not conducted in accordance with acceptable standards. The OECD protocols are available from OECD, 1750 Pennsylvania Avenue N.W., Washington, D.C. 20006.

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All new studies and proposed protocols submitted in response to this Data Call-In Notice must be in accordance with Good Laboratory Practices [40 CFR Part 160.3(a)(6)].

II-D. REGISTRANTS RECEIVING PREVIOUS SECTION 3(c)(2)(B) NOTICES ISSUED BY THE AGENCY

Unless otherwise noted herein, this Data Call-In does not in any way supersede or change the requirements of any previous Data Call-In(s), or any other agreements entered into with the Agency pertaining to such prior Notice. Registrants must comply with the requirements of all Notices to avoid issuance of a Notice of Intent to Suspend their affected products.

SECTION III. COMPLIANCE WITH REQUIREMENTS OF THIS NOTICE

III-A. SCHEDULE FOR RESPONDING TO THE AGENCY

The appropriate responses initially required by this Notice for product specific data must be submitted to the Agency within 90 days after your receipt of this Notice. Failure to adequately respond to this Notice within 90 days of your receipt will be a basis for issuing a Notice of Intent to Suspend (NOIS) affecting your products. This and other bases for issuance of NOIS due to failure to comply with this Notice are presented in Section IV-A and IV-B.

III-B. OPTIONS FOR RESPONDING TO THE AGENCY

The options for responding to this Notice for product specific data are: (a) voluntary cancellation, (b) agree to satisfy the product specific data requirements imposed by this notice or (c) request a data waiver(s).

A discussion of how to respond if you chose the Voluntary Cancellation option is presented below. A discussion of the various options available for satisfying the product specific data requirements of this Notice is contained in Section III-C. A discussion of options relating to requests for data waivers is contained in Section III-D.

There are two forms that accompany this Notice of which, depending upon your response, one or both must be used in your response to the Agency. These forms are the Data-Call-In Response Form, and the Requirements Status and Registrant's Response Form, Attachment 2 and Attachment 3. The Data Call-In Response Form must be submitted as part of every response to this Notice. In addition, one copy of the Requirements Status and Registrant's Response Form must be submitted for each product listed on the Data Call-In Response Form unless the voluntary cancellation option is selected or unless the product is identical to another (refer to the instructions for completing the Data Call-In Response Form in Attachment 2). Please note that the company's authorized representative is required to sign the first page of the Data Call-In Response Form and Requirements Status and Registrant's Response Form (if this form is required) and initial any subsequent pages. The forms contain separate detailed instructions on the response options. Do not alter the printed material. If you have questions or need assistance in preparing your response, call or write the contact person(s) identified in Attachment 1.

1. Voluntary Cancellation - You may avoid the requirements of this Notice by requesting voluntary cancellation of your product(s) containing the active ingredient that is the subject of this Notice. If you wish to voluntarily cancel your product, you must submit a completed Data Call-In Response Form, indicating your

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election of this option. Voluntary cancellation is item number 5 on the Data Call-In Response Form. If you choose this option, this is the only form that you are required to complete.

If you chose to voluntarily cancel your product, further sale and distribution of your product after the effective date of cancellation must be in accordance with the Existing Stocks provisions of this Notice which are contained in Section IV-C.

2. Satisfying the Product Specific Data Requirements of this Notice There are various options available to satisfy the product specific data requirements of this Notice. These options are discussed in Section III-C of this Notice and comprise options 1 through 6 on the Requirements Status and Registrant's Response Form and item numbers 7a and 7b on the Data Call-In Response Form. Deletion of a use(s) and the low volume/minor use option are not valid options for fulfilling product specific data requirements.

3. Request for Product Specific Data Waivers. Waivers for product specific data are discussed in Section III-D of this Notice and are covered by option 7 on the Requirements Status and Registrant's Response Form. If you choose one of these options, you must submit both forms as well as any other information/data pertaining to the option chosen to address the data requirement.

III-C SATISFYING THE DATA REQUIREMENTS OF THIS NOTICE

If you acknowledge on the Data Call-In Response Form that you agree to satisfy the product specific data requirements (i.e. you select item number 7a or 7b), then you must select one of the six options on the Requirements Status and Registrant's Response Form related to data production for each data requirement. Your option selection should be entered under item number 9, "Registrant Response." The six options related to data production are the first six options discussed under item 9 in the instructions for completing the Requirements Status and Registrant's Response Form. These six options are listed immediately below with information in parentheses to guide registrants to additional instructions provided in this Section. The options are:

(1) I will generate and submit data within the specified time frame (Developing Data)
(2) I have entered into an agreement with one or more registrants to develop data jointly (Cost Sharing)
(3) I have made offers to cost-share (Offers to Cost Share)
(4) I am submitting an existing study that has not been submitted previously to the Agency by anyone (Submitting an Existing Study)
(5) I am submitting or citing data to upgrade a study classified by EPA as partially acceptable and upgradeable (Upgrading a Study)
(6) I am citing an existing study that EPA has classified as acceptable or an existing study that has been submitted but not reviewed by the Agency (Citing an Existing Study)

Option 1, Developing Data -- If you choose to develop the required data it must be in conformance with Agency deadlines and with other Agency requirements as referenced herein and in the attachments. All data generated and submitted must comply with the Good Laboratory Practice (GLP) rule (40 CFR Part 160), be conducted according to the Pesticide Assessment Guidelines (PAG), and be in conformance with the requirements of PR Notice 86-5.

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The time frames in the Requirements Status and Registrant's Response Form are the time frames that the Agency is allowing for the submission of completed study reports. The noted deadlines run from the date of the receipt of this Notice by the registrant. If the data are not submitted by the deadline, each registrant is subject to receipt of a Notice of Intent to Suspend the affected registration(s).

If you cannot submit the data/reports to the Agency in the time required by this Notice and intend to seek additional time to meet the requirements(s), you must submit a request to the Agency which includes: (1) a detailed description of the expected difficulty and (2) a proposed schedule including alternative dates for meeting such requirements on a step-by-step basis. You must explain any technical or laboratory difficulties and provide documentation from the laboratory performing the testing. While EPA is considering your request, the original deadline remains. The Agency will respond to your request in writing. If EPA does not grant your request, the original deadline remains. Normally, extensions can be requested only in cases of extraordinary testing problems beyond the expectation or control of the registrant. Extensions will not be given in submitting the 90-day responses. Extensions will not be considered if the request for extension is not made in a timely fashion; in no event shall an extension request be considered if it is submitted at or after the lapse of the subject deadline.

Option 2, Agreement to Share in Cost to Develop Data -- Registrants may only choose this option for acute toxicity data and certain efficacy data and only if EPA has indicated in the attached data tables that your product and at least one other product are similar for purposes of depending on the same data. If this is the case, data may be generated for just one of the products in the group. The registration number of the product for which data will be submitted must be noted in the agreement to cost share by the registrant selecting this option. If you choose to enter into an agreement to share in the cost of producing the required data but will not be submitting the data yourself, you must provide the name of the registrant who will be submitting the data. You must also provide EPA with documentary evidence that an agreement has been formed. Such evidence may be your letter offering to join in an agreement and the other registrant's acceptance of your offer, or a written statement by the parties that an agreement exists. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or the mechanism to resolve the terms. Section 3(c)(2)(B) provides that if the parties cannot resolve the terms of the agreement they may resolve their differences through binding arbitration.

Option 3, Offer to Share in the Cost of Data Development -- This option only applies to acute toxicity and certain efficacy data as described in option 2 above. If you have made an offer to pay in an attempt to enter into an agreement or amend an existing agreement to meet the requirements of this Notice and have been unsuccessful, you may request EPA (by selecting this option) to exercise its discretion not to suspend your registration(s), although you do not comply with the data submission requirements of this Notice. EPA has determined that as a general policy, absent other relevant considerations, it will not suspend the registration of a product of a registrant who has in good faith sought and continues to seek to enter into a joint data development/cost sharing program, but the other registrant(s) developing the data has refused to accept your offer. To qualify for this option, you must submit documentation to the Agency proving that you have made an offer to another registrant (who has an obligation to submit data) to share in the burden of developing that data. You must

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also submit to the Agency a completed EPA Form 8570-32, Certification of Offer to Cost Share in the Development of Data, Attachment 7. In addition, you must demonstrate that the other registrant to whom the offer was made has not accepted your offer to enter into a cost sharing agreement by including a copy of your offer and proof of the other registrant's receipt of that offer (such as a certified mail receipt). Your offer must, in addition to anything else, offer to share in the burden of producing the data upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii) and must not qualify this offer. The other registrant must also inform EPA of its election of an option to develop and submit the data required by this Notice by submitting a Data Call-In Response Form and a Requirements Status and Registrant's Response Form committing to develop and submit the data required by this Notice.

In order for you to avoid suspension under this option, you may not withdraw your offer to share in the burdens of developing the data. In addition, the other registrant must fulfill its commitment to develop and submit the data as required by this Notice. If the other registrant fails to develop the data or for some other reason is subject to suspension, your registration as well as that of the other registrant will normally be subject to initiation of suspension proceedings, unless you commit to submit, and do submit the required data in the specified time frame. In such cases, the Agency generally will not grant a time extension for submitting the data.

Option 4, Submitting an Existing Study -- If you choose to submit an existing study in response to this Notice, you must determine that the study satisfies the requirements imposed by this Notice. You may only submit a study that has not been previously submitted to the Agency or previously cited by anyone. Existing studies are studies which predate issuance of this Notice. Do not use this option if you are submitting data to upgrade a study. (See Option 5).

You should be aware that if the Agency determines that the study is not acceptable, the Agency will require you to comply with this Notice, normally without an extension of the required date of submission. The Agency may determine at any time that a study is not valid and needs to be repeated.

To meet the requirements of the DCI Notice for submitting an existing study, all of the following three criteria must be clearly met:

a. You must certify at the time that the existing study is submitted that the raw data and specimens from the study are available for audit and review and you must identify where they are available. This must be done in accordance with the requirements of the Good Laboratory Practice (GLP) regulation, 40 CFR Part 160. As stated in 40 CFR 160.3(j) " 'raw data' means any laboratory worksheets, records, memoranda, notes, or exact copies thereof, that are the result of original observations and activities of a study and are necessary for the reconstruction and evaluation of the report of that study. In the event that exact transcripts of raw data have been prepared (e.g., tapes which have been transcribed verbatim, dated, and verified accurate by signature), the exact copy or exact transcript may be substituted for the original source as raw data. 'Raw data' may include photographs, microfilm or microfiche copies, computer printouts, magnetic media, including dictated observations, and recorded data from automated

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instruments." The term "specimens", according to 40 CFR 160.3(k), means "any material derived from a test system for examination or analysis."

b. Health and safety studies completed after May 1984 must also contain all GLP-required quality assurance and quality control information, pursuant to the requirements of 40 CFR Part 160. Registrants must also certify at the time of submitting the existing study that such GLP information is available for post-May 1984 studies by including an appropriate statement on or attached to the study signed by an authorized official or representative of the registrant.

c. You must certify that each study fulfills the acceptance criteria for the Guideline relevant to the study provided in the FIFRA Accelerated Reregistration Phase 3 Technical Guidance and that the study has been conducted according to the Pesticide Assessment Guidelines (PAG) or meets the purpose of the PAG (both available from NTIS). A study not conducted according to the PAG may be submitted to the Agency for consideration if the registrant believes that the study clearly meets the purpose of the PAG. The registrant is referred to 40 CFR 158.70 which states the Agency's policy regarding acceptable protocols. If you wish to submit the study, you must, in addition to certifying that the purposes of the PAG are met by the study, clearly articulate the rationale why you believe the study meets the purpose of the PAG, including copies of any supporting information or data. It has been the Agency's experience that studies completed prior to January 1970 rarely satisfied the purpose of the PAG and that necessary raw data are usually not available for such studies.

If you submit an existing study, you must certify that the study meets all requirements of the criteria outlined above.

If you know of a study pertaining to any requirement in this Notice which does not meet the criteria outlined above but does contain factual information regarding unreasonable adverse effects, you must notify the Agency of such a study. If such study is in the Agency's files, you need only cite it along with the notification. If not in the Agency's files, you must submit a summary and copies as required by PR Notice 86-5.

Option 5, Upgrading a Study -- If a study has been classified as partially acceptable and upgradeable, you may submit data to upgrade that study. The Agency will review the data submitted and determine if the requirement is satisfied. If the Agency decides the requirement is not satisfied, you may still be required to submit new data normally without any time extension. Deficient, but upgradeable studies will normally be classified as supplemental. However, it is important to note that not all studies classified as supplemental are upgradeable. If you have questions regarding the classification of a study or whether a study may be upgraded, call or write the contact person listed in Attachment 1. If you submit data to upgrade an existing study you must satisfy or supply information to correct all deficiencies in the study identified by EPA. You must provide a clearly articulated rationale of how the deficiencies have been remedied or corrected and why the study should be rated as acceptable to EPA. Your submission must also specify the MRID number(s) of the study which you are attempting to upgrade and must be in conformance with PR Notice 86-5.

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Do not submit additional data for the purpose of upgrading a study classified as unacceptable and determined by the Agency as not capable of being upgraded.

This option should also be used to cite data that has been previously submitted to upgrade a study, but has not yet been reviewed by the Agency. You must provide the MRID number of the data submission as well as the MRID number of the study being upgraded.

The criteria for submitting an existing study, as specified in Option 4 above, apply to all data submissions intended to upgrade studies. Additionally your submission of data intended to upgrade studies must be accompanied by a certification that you comply with each of those criteria as well as a certification regarding protocol compliance with Agency requirements.

Option 6, Citing Existing Studies -- If you choose to cite a study that has been previously submitted to EPA, that study must have been previously classified by EPA as acceptable or it must be a study which has not yet been reviewed by the Agency. Acceptable toxicology studies generally will have been classified as "core-guideline" or "core minimum." For all other disciplines the classification would be "acceptable." With respect to any studies for which you wish to select this option you must provide the MRID number of the study you are citing and, if the study has been reviewed by the Agency, you must provide the Agency's classification of the study.

If you are citing a study of which you are not the original data submitter, you must submit a completed copy of EPA Form 8570-31, Certification with Respect to Data Compensation Requirements.

Registrants who select one of the above 6 options must meet all of the requirements described in the instructions for completing the Data Call-In Response Form and the Requirements Status and Registrant's Response Form, as appropriate.

III-D REQUESTS FOR DATA WAIVERS

If you request a waiver for product specific data because you believe it is inappropriate, you must attach a complete justification for the request, including technical reasons, data and references to relevant EPA regulations, guidelines or policies. (Note: any supplemental data must be submitted in the format required by PR Notice 86-5). This will be the only opportunity to state the reasons or provide information in support of your request. If the Agency approves your waiver request, you will not be required to supply the data pursuant to section 3(c)(2)(B) of FIFRA. If the Agency denies your waiver request, you must choose an option for meeting the data requirements of this Notice within 30 days of the receipt of the Agency's decision. You must indicate and submit the option chosen on the Requirements Status and Registrant's Response Form. Product specific data requirements for product chemistry, acute toxicity and efficacy (where appropriate) are required for all products and the Agency would grant a waiver only under extraordinary circumstances. You should also be aware that submitting a waiver request will not automatically extend the due date for the study in question. Waiver requests submitted without adequate supporting rationale will be denied and the original due date will remain in force.

IV. CONSEQUENCES OF FAILURE TO COMPLY WITH THIS NOTICE

IV-A NOTICE OF INTENT TO SUSPEND

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The Agency may issue a Notice of Intent to Suspend products subject to this Notice due to failure by a registrant to comply with the requirements of this Data Call-In Notice, pursuant to FIFRA section 3(c)(2)(B). Events which may be the basis for issuance of a Notice of Intent to Suspend include, but are not limited to, the following:

1. Failure to respond as required by this Notice within 90 days of your receipt of this Notice.

2. Failure to submit on the required schedule an acceptable proposed or final protocol when such is required to be submitted to the Agency for review.

3. Failure to submit on the required schedule an adequate progress report on a study as required by this Notice.

4. Failure to submit on the required schedule acceptable data as required by this Notice.

5. Failure to take a required action or submit adequate information pertaining to any option chosen to address the data requirements (e.g., any required action or information pertaining to submission or citation of existing studies or offers, arrangements, or arbitration on the sharing of costs or the formation of Task Forces, failure to comply with the terms of an agreement or arbitration concerning joint data development or failure to comply with any terms of a data waiver).

6. Failure to submit supportable certifications as to the conditions of submitted studies, as required by Section III-C of this Notice.

7. Withdrawal of an offer to share in the cost of developing required data.

8. Failure of the registrant to whom you have tendered an offer to share in the cost of developing data and provided proof of the registrant's receipt of such offer or failure of a registrant on whom you rely for a generic data exemption either to:

   a. inform EPA of intent to develop and submit the data required by this Notice on a <u>Data Call-In Response Form</u> and a <u>Requirements Status and Registrant's Response Form;</u>

   b. fulfill the commitment to develop and submit the data as required by this Notice; or

   c. otherwise take appropriate steps to meet the requirements stated in this Notice, unless you commit to submit and do submit the required data in the specified time frame.

9. Failure to take any required or appropriate steps, not mentioned above, at any time following the issuance of this Notice.

IV-B. <u>BASIS FOR DETERMINATION THAT SUBMITTED STUDY IS UNACCEPTABLE</u>

The Agency may determine that a study (even if submitted within the required time) is unacceptable and constitutes a basis for issuance of a Notice of Intent to Suspend. The grounds for

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suspension include, but are not limited to, failure to meet any of the following:

1. EPA requirements specified in the Data Call-In Notice or other documents incorporated by reference (including, as applicable, EPA Pesticide Assessment Guidelines, Data Reporting Guidelines, and GeneTox Health Effects Test Guidelines) regarding the design, conduct, and reporting of required studies. Such requirements include, but are not limited to, those relating to test material, test procedures, selection of species, number of animals, sex and distribution of animals, dose and effect levels to be tested or attained, duration of test, and, as applicable, Good Laboratory Practices.

2. EPA requirements regarding the submission of protocols, including the incorporation of any changes required by the Agency following review.

3. EPA requirements regarding the reporting of data, including the manner of reporting, the completeness of results, and the adequacy of any required supporting (or raw) data, including, but not limited to, requirements referenced or included in this Notice or contained in PR 86-5. All studies must be submitted in the form of a final report; a preliminary report will not be considered to fulfill the submission requirement.

IV-C <u>EXISTING STOCKS OF SUSPENDED OR CANCELLED PRODUCTS</u>

EPA has statutory authority to permit continued sale, distribution and use of existing stocks of a pesticide product which has been suspended or cancelled if doing so would be consistent with the purposes of the Act.

The Agency has determined that such disposition by registrants of existing stocks for a suspended registration when a section 3(c)(2)(B) data request is outstanding would generally not be consistent with the Act's purposes. Accordingly, the Agency anticipates granting registrants permission to sell, distribute, or use existing stocks of suspended product(s) only in exceptional circumstances. If you believe such disposition of existing stocks of your product(s) which may be suspended for failure to comply with this Notice should be permitted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. You must also explain why an "existing stocks" provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale, distribution, and use. Unless you meet this burden the Agency will not consider any request pertaining to the continued sale, distribution, or use of your existing stocks after suspension.

If you request a voluntary cancellation of your product(s) as a response to this Notice and your product is in full compliance with all Agency requirements, you will have, under most circumstances, one year from the date your 90 day response to this Notice is due, to sell, distribute, or use existing stocks. Normally, the Agency will allow persons other than the registrant such as independent distributors, retailers and end users to sell, distribute or use such existing stocks until the stocks are exhausted. Any sale, distribution or use of stocks of voluntarily cancelled products containing an active ingredient for which the Agency has particular risk concerns will be determined on case-by-case basis.

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Requests for voluntary cancellation received after the 90 day response period required by this Notice will not result in the Agency granting any additional time to sell, distribute, or use existing stocks beyond a year from the date the 90 day response was due unless you demonstrate to the Agency that you are in full compliance with all Agency requirements, including the requirements of this Notice. For example, if you decide to voluntarily cancel your registration six months before a 3 year study is scheduled to be submitted, all progress reports and other information necessary to establish that you have been conducting the study in an acceptable and good faith manner must have been submitted to the Agency, before EPA will consider granting an existing stocks provision.

SECTION V. REGISTRANTS' OBLIGATION TO REPORT POSSIBLE UNREASONABLE ADVERSE EFFECTS

Registrants are reminded that FIFRA section 6(a)(2) states that if at any time after a pesticide is registered a registrant has additional factual information regarding unreasonable adverse effects on the environment by the pesticide, the registrant shall submit the information to the Agency. Registrants must notify the Agency of any factual information they have, from whatever source, including but not limited to interim or preliminary results of studies, regarding unreasonable adverse effects on man or the environment. This requirement continues as long as the products are registered by the Agency.

SECTION VI. INQUIRIES AND RESPONSES TO THIS NOTICE

If you have any questions regarding the requirements and procedures established by this Notice, call the contact person(s) listed in Attachment 1, the Data Call-In Chemical Status Sheet.

All responses to this Notice (other than voluntary cancellation requests and generic data exemption claims) must include a completed Data Call-In Response Form and a completed Requirements Status and Registrant's Response Form (Attachment 2 and Attachment 3 for product specific data) and any other documents required by this Notice, and should be submitted to the contact person(s) identified in Attachment 1. If the voluntary cancellation or generic data exemption option is chosen, only the Data Call-In Response Form need be submitted.

The Office of Compliance Monitoring (OCM) of the Office of Pesticides and Toxic Substances (OPTS), EPA, will be monitoring the data being generated in response to this Notice.

Sincerely yours,

Louis P. True, Jr., Acting Director
Special Review and
Reregistration Division

Attachments

1 - Data Call-In Chemical Status Sheet
2 - Product-Specific Data Call-In Response Form
3 - Requirements Status and Registrant's Response Form
4 - EPA Grouping of End-Use Products for Meeting Acute Toxicology Data Requirements for Reregistration

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5 - EPA Acceptance Criteria
6 - List of Registrants Receiving This Notice
7 - Cost Share and Data Compensation Forms, and Product Specific Data Report Form

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Attachment 1. Chemical Status Sheet

M-CRESOL AND XYLENOL DATA CALL-IN CHEMICAL STATUS SHEET

INTRODUCTION

You have been sent this Product Specific Data Call-In Notice because you have product(s) containing M-Cresol and Xylenol.

This Product Specific Data Call-In Chemical Status Sheet, contains an overview of data required by this notice, and point of contact for inquiries pertaining to the reregistration of M-Cresol and Xylenol. This attachment is to be used in conjunction with (1) the Product Specific Data Call-In Notice, (2) the Product Specific Data Call-In Response Form (Attachment 2), (3) the Requirements Status and Registrant's Form (Attachment 3), (4) EPA's Grouping of End-Use Products for Meeting Acute Toxicology Data Requirement (Attachment 4), (5) the EPA Acceptance Criteria (Attachment 5), (6) a list of registrants receiving this DCI (Attachment 6) and (7) the Cost Share and Data Compensation Forms in replying to this M-Cresol and Xylenol Product Specific Data Call-In (Attachment 7). Instructions and guidance accompany each form.

DATA REQUIRED BY THIS NOTICE

The additional data requirements needed to complete the database for M-Cresol and Xylenol are contained in the Requirements Status and Registrant's Response, Attachment 3. The Agency has concluded that additional data on M-Cresol and Xylenol are needed for specific products. These data are required to be submitted to the Agency within the time frame listed. These data are needed to fully complete the reregistration of all eligible M-Cresol and Xylenol products.

INQUIRIES AND RESPONSES TO THIS NOTICE

If you have any questions regarding the generic database of M-Cresol and Xylenol, please contact Paul Lewis at (703) 308-8018.

If you have any questions regarding the product specific data requirements and procedures established by this Notice, for m-cresol contact Veronica Dutch at (703) 308-8585; for xylenol contact Emily Mitchell at (703) 308-8583

All responses to this Notice for the Product Specific data requirements should be submitted to:

Veronica Dutch and Emily Mitchell
Chemical Review Manager Team 81
Product Reregistration Branch
Special Review and Reregistration Branch 7508W
Office of Pesticide Programs
U.S. Environmental Protection Agency
Washington, D.C. 20460

RE: **M-Cresol and Xylenol**

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Attachment 2. Product Specific Data Call-In Response Forms (Form A inserts) Plus Instructions

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INSTRUCTIONS FOR COMPLETING THE **DATA CALL-IN RESPONSE FORM** FOR **PRODUCT SPECIFIC DATA**

Item 1-4. Already completed by EPA.

Item 5. If you wish to **voluntarily cancel** your product, answer "**yes**." If you choose this option, you will not have to provide the data required by the Data Call-In Notice and you will not have to complete any other forms. Further sale and distribution of your product after the effective date of cancellation must be in accordance with the Existing Stocks provision of the Data Call-In Notice (Section IV-C).

Item 6. Not applicable since this form calls in product specific data only. However, if your product is **identical** to another product and you qualify for a **data exemption**, you must respond with "**yes**" to Item 7a (MUP) or 7B (EUP) on this form, provide the **EPA registration numbers of your source(s)**; you would **not** complete the "Requirements Status and Registrant's Response" form. Examples of such products include **repackaged** products and **Special Local Needs (Section 24c)** products which are identical to federally registered products.

Item 7a. For each **manufacturing use product** (MUP) for which you wish to maintain registration, you must agree to satisfy the data requirements by responding "**yes**."

Item 7b. For each **end use product** (EUP) for which you wish to maintain registration, you must agree to satisfy the data requirements by responding "**yes**." If you are requesting a **data waiver**, answer "**yes**" here; in addition, on the "Requirements Status and Registrant's Response" form under Item 9, you must respond with **Option 7** (Waiver Request) for each study for which you are requesting a waiver. See Item 6 with regard to identical products and data exemptions.

Items 8-11. Self-explanatory.

NOTE: You may provide **additional information** that does not fit on this form in a signed letter that accompanies this form. For example, you may wish to report that your product has already been transferred to another company or that you have already voluntarily canceled this product. For these cases, please supply all relevant details so that EPA can ensure that its records are correct.

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INSTRUCTIONS FOR COMPLETING THE **REQUIREMENTS STATUS AND REGISTRANT'S RESPONSE FORM** FOR **PRODUCT SPECIFIC DATA**

Item 1-3 Completed by EPA. Note the **unique identifier number** assigned by EPA in Item 3. This number **must be used in the transmittal document for any data submissions** in response to this Data Call-In Notice.

Item 4. The guideline reference numbers of studies required to support the product's continued registration are identified. These guidelines, in addition to the requirements specified in the Notice, govern the conduct of the required studies. Note that series 61 and 62 in product chemistry are now listed under 40 CFR 158.155 through 158.180, Subpart C.

Item 5. The study title associated with the guideline reference number is identified.

Item 6. The use pattern(s) of the pesticide associated with the product specific requirements is (are) identified. For most product specific data requirements, all use patterns are covered by the data requirements. In the case of efficacy data, the required studies only pertain to products which have the use sites and/or pests indicated.

Item 7. The substance to be tested is identified by EPA. For product specific data, the product as formulated for sale and distribution is the test substance, except in rare cases.

Item 8. The due date for submission of each study is identified. It is normally based on **8 months after issuance of the Reregistration Eligibility Document** unless EPA determines that a longer time period is necessary.

Item 9. **Enter <u>only one</u> of the following response codes <u>for each data requirement</u> to show how you intend to comply with the data requirements listed in this table.** Fuller descriptions of each option are contained in the Data Call-In Notice.

1. I will generate and submit data by the specified due date (**Developing Data**). By indicating that I have chosen this option, I certify that I will comply with all the requirements pertaining to the conditions for submittal of this study as outlined in the Data Call-In Notice. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

2. I have entered into an agreement with one or more registrants to develop data jointly (**Cost Sharing**). I am submitting a **copy of this agreement**. I understand that this option is available **only** for acute toxicity or certain efficacy data and **only** if EPA indicates in an attachment to this Notice that my product is similar enough to another product to qualify for this option. I certify that another party in the agreement is committing to submit or provide the required data; if the required study is not submitted on time, my product may be subject to suspension. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation**

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Requirements" form (EPA Form 8570-29) and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

3. I have made offers to share in the cost to develop data (**Offers to Cost Share**). I understand that this option is available **only** for acute toxicity or certain efficacy data and **only** if EPA indicates in an attachment to this Data Call-In Notice that my product is similar enough to another product to qualify for this option. I am submitting **evidence that I have made an offer** to another registrant (who has an obligation to submit data) to share in the cost of that data. I am also submitting a completed **"Certification of Offer to Cost Share in the Development Data" form**. I am including a copy of my offer and proof of the other registrant's receipt of that offer. I am identifying the party which is committing to submit or provide the required data; if the required study is not submitted on time, my product may be subject to suspension. I understand that other terms under Option 3 in the Data Call-In Notice (Section III-C.1.) apply as well. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

4. By the specified due date, I will submit an existing study that has not been submitted previously to the Agency by anyone (**Submitting an Existing Study**). I certify that this study will meet all the requirements for submittal of existing data outlined in Option 4 in the Data Call-In Notice (Section III-C.1.) and will meet the attached acceptance criteria (for acute toxicity and product chemistry data). I will attach the needed supporting information along with this response. I also certify that I have determined that this study will fill the data requirement for which I have indicated this choice. By the specified due date, I will also submit a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** to show what data compensation option I have chosen. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

5. By the specified due date, I will submit or cite data to upgrade a study classified by the Agency as partially acceptable and upgradable (**Upgrading a Study**). I will submit **evidence of the Agency's review** indicating that the study may be upgraded and what information is required to do so. I will provide the MRID or Accession number of the study at the due date. I understand that the conditions for this option outlined Option 5 in the Data Call-In Notice (Section III-C.1.) apply. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

6. By the specified due date, I will cite an existing study that the Agency has classified as acceptable or an existing study that has been submitted but not reviewed by the Agency (**Citing an Existing Study**). If I am citing another

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registrant's study, I understand that this option is available **only** for acute toxicity or certain efficacy data and **only** if the cited study was conducted on my product, an identical product or a product which EPA has "grouped" with one or more other products for purposes of depending on the same data. I may also choose this option if I am citing my own data. In either case, I will provide the **MRID or Accession number(s)** for the cited data on a "Product Specific Data Report" form or in a similar format. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

7. I request a waiver for this study because it is inappropriate for my product (**Waiver Request**). I am attaching a complete justification for this request, including technical reasons, data and references to relevant EPA regulations, guidelines or policies. [Note: any supplemental data must be submitted in the format required by P.R. Notice 86-5]. I understand that this is my **only** opportunity to state the reasons or provide information in support of my request. If the Agency approves my waiver request, I will **not** be required to supply the data pursuant to Section 3(c)(2)(B) of FIFRA. If the Agency denies my waiver request, I **must choose** a method of meeting the data requirements of this Notice by the due date stated by this Notice. In this case, I must, within **30 days** of my receipt of the Agency's written decision, submit a revised "Requirements Status and Registrant's Response" Form indicating the option chosen. I also understand that the deadline for submission of data as specified by the original data call-in notice will not change. By the specified due date, I will also submit: (1) a completed **"Certification With Respect To Data Compensation Requirements" form (EPA Form 8570-29)** and (2) two completed and signed copies of the **Confidential Statement of Formula (EPA Form 8570-4)**.

Items 10-13. Self-explanatory.

NOTE: You may provide **additional information** that does not fit on this form in a signed letter that accompanies this form. For example, you may wish to report that your product has already been transferred to another company or that you have already voluntarily canceled this product. For these cases, please supply all relevant details so that EPA can ensure that its records are correct.

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Attachment 3. Product Specific Requirement Status and Registrant's Response Forms (Form B inserts) and Instructions

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INSTRUCTIONS FOR COMPLETING THE "REQUIREMENTS STATUS AND REGISTRANT'S RESPONSE" FORM FOR PRODUCT SPECIFIC DATA

Item 1-3. Completed by EPA. Note the unique identifier number assigned by EPA in item 3. This number must be used in the transmittal document for any data submissions in response to this Data Call-In Notice.

Item 4. The guidelines reference numbers of studies required to support the product's continued registration are identified. These guidelines, in addition to the requirements specified in the Notice, govern the conduct of the required studies. Note that series 61 and 62 in product chemistry are now listed under 40 CFR 158.155 through 158.180, Subpart c.

Item 5. The study title associated with the guideline reference number is identified.

Item 6. The use patters (s) of the pesticide associated with the product specific requirements is (are) identified. For most product specific data requirements, all use patterns are covered by the data requirements. In the case of efficacy data, the required studies only pertain to products which have the use sites and/ or pests indicated.

Item 7. The substance to be tested is identified by EPA. For product specific data, the product as formulated for sale and distribution is the test substance, except in rare cases.

Item 8. The due date for submission of each study is identified. lt is normally based on 8 months after issuance of the Reregistration Eligibility Documents unless EPA determines that a longer time period is necessary.

Item 9. Enter Only one of the following response codes for each data requirement to show how you intend to comply with the data requirements listed in this table. Fuller descriptions of each option are contained in the Data Call-In Notice.

1. I will generate and submit data by the specified due date (Developing Data). By indicating that I have chosen this option, I certify that I will comply with all the requirements pertaining to the conditions for submittal of this study as outlined in the Data Call-In Notice.

2. I have entered into an agreement with one or more registrants to develop data jointly (Cost Sharing). I am submitting a copy of this agreement. I understand that this option is available on for acute toxicity or certain efficacy data and only if EPA indicates in an attachment to this notice that my product is similar. Enough to another product to qualify for this option. I certify that another party in the agreement is committing to submit or provide the required data; if the required study is not submitted on time, my product my be subject to suspension.

3. I have made offers to share in the cost to develop data (Offers to Cost Share). I understand that this option is available only for acute toxicity or certain efficacy data and only if EPA indicates in an attachment to this Data Call-In Notice that my product is similar enough to another product to qualify for this option. I am

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submitting evidence that I have made an offer to another registrant (who has an obligation to submit data) to share in the cost of that data. I am also submitting a completed " Certification of offer to Cost Share in the Development Data" form. I am including a copy of my offer and proof of the other registrant's receipt of that offer. I am identifying the party which is committing to submit or provide the require data; if the required study is not submitted on time, my product may be subject to suspension. I understand that other terms under Option 3 in the Data Call-In Notice (Section III-C.1.) apply as well.

4. By the specified due date, I will submit an existing study that has not been submitted previously to the Agency by anyone (submitting an Existing Study). I certify that this study will meet all the requirements for submittal of existing data outlined in option 4 in the Data Call-In Notice (Section III-C.1.) and will meet the attached acceptance criteria (for acute toxicity and product chemistry data). I will attach the needed supporting information along with this response. I also certify that I have determined that this study will fill the data requirement for which I have indicated this choice.

5. By the specified due date, I will submit or cite data to upgrade a study classified by the Agency as partially acceptable and upgrade (upgrading a study). I will submit evidence of the Agency's review indicating that the study may be upgraded and what information is required to do so. I will provide the MRID or Accession number of the study at the due date. I understand that the conditions for this Option outlined Option 5 in the Data Call-In Notice (Section III-C.1.) apply.

6. By the specified due date, I will cite an existing study that the Agency has classified as acceptable or an existing study that has been submitted but not reviewed by the Agency (Citing an Existing Study). If I am citing another registrant's study, I understand that this option is available only for acute toxicity or certain efficacy data and only if the cited study was conducted on my product, an identical product or a product which EPA has "grouped" with one or more other products for purposes of depending on the same data. I may also choose this option if I am citing my own data. In either case, I will provide the MRID or Accession number (s) number (s) for the cited data on a "Product Specific Data Report" form or in a similar format. If I cite another registratrant's data, I will submit a completed "Certification With Respect To Data Compensation Requirements" form.

7. I request a waiver for this study because it is inappropriate for my product (Waiver Request). I am attaching a complete justification for this request, including technical reasons, data and references to relevant EPA regulations, guidelines or policies. [Note: any supplemental data must be submitted in the format required by P.R. Notice 86-5]. I understand that this is my only opportunity to state the reasons or provide information in support of my request. If the Agency approves my waiver request, I will not be require to supply the data pursuant to Section 3(c) (2) (B) of FIFRA. If the Agency denies my waiver request, I must choose a method of meeting the data requirements of this Notice by the due date stated by this Notice. In this case, I must, within

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30 days of my receipt of the Agency's written decision, submit a revised "Requirements Status chosen. I also understand that the deadline for submission of data as specified by the original data cal-in notice will not change.

Items 10-13. Self-explanatory.

NOTE: You may provide additional information that does not fit on this form in a signed letter that accompanies this form. For example, you may wish to report that your product has already been transferred to another company or that you have already voluntarily cancelled this product. For these cases, please supply all relevant details so that EPA can ensure that its records are correct.

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Attachment 4. EPA Batching of End-Use Products for Meeting Data Requirements for Reregistration

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No toxicological batching is required.

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Attachment 5. EPA Acceptance Criteria

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SUBDIVISION D

Guideline	Study Title
Series 61	Product Identity and Composition
Series 62	Analysis and Certification of Product Ingredients
Series 63	Physical and Chemical Characteristics

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61 Product Identity and Composition

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Name of technical material tested (include product name and trade name, if appropriate).

2.____ Name, nominal concentration, and certified limits (upper and lower) for each active ingredient and each intentionally-added inert ingredient.

3.____ Name and upper certified limit for each impurity or each group of impurities present at $\geq$ 0.1% by weight and for certain toxicologically significant impurities (e.g., dioxins, nitrosamines) present at < 0.1%.

4.____ Purpose of each active ingredient and each intentionally-added inert.

5.____ Chemical name from Chemical Abstracts index of Nomenclature and Chemical Abstracts Service (CAS) Registry Number for each active ingredient and, if available, for each intentionally-added inert.

6.____ Molecular, structural, and empirical formulas, molecular weight or weight range, and any company assigned experimental or internal code numbers for each active ingredient.

7.____ Description of each beginning material in the manufacturing process.
- ____ EPA Registration Number if registered;
  for other beginning materials, the following:
- ____ Name and address of manufacturer or supplier.
- ____ Brand name, trade name or commercial designation.
- ____ Technical specifications or data sheets by which manufacturer or supplier describes composition, properties or toxicity.

8.____Description of manufacturing process.
- ____ Statement of whether batch or continuous process.
- ____ Relative amounts of beginning materials and order in which they are added.
- ____ Description of equipment.
- ____ Description of physical conditions (temperature, pressure, humidity) controlled in each step and the parameters that are maintained.
- ____ Statement of whether process involves intended chemical reactions.
- ____ Flow chart with chemical equations for each intended chemical reaction.
- ____ Duration of each step of process.
- ____ Description of purification procedures.
- ____ Description of measures taken to assure quality of final product.

9.____ Discussion of formation of impurities based on established chemical theory addressing (1) each impurity which may be present at $\geq$ 0.1% or was found at $\geq$ 0.1% by product analyses and (2) certain toxicologically significant impurities (see #3).

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ACCEPTANCE CRITERIA

The following criteria apply to the technical grade of the active ingredient being reregistered. Use a table to present the information in items 6, 7, and 8.

Does your study meet the following acceptance criteria?

1.____ Five or more representative samples (batches in case of batch process) analyzed for each active ingredient and all impurities present at > 0.1%.
2.____ Degree of accountability or closure > ca 98%.
3.____ Analyses conducted for certain trace toxic impurities at lower than 0.1% (examples, nitrosamines in the case of products containing dinitroanilines or containing secondary or tertiary amines/alkanolamines plus nitrites; polyhalogenated dibenzodioxins and dibenzofurans). [Note that in the case of nitrosamines both fresh and stored samples must be analyzed.].
4.____ Complete and detailed description of each step in analytical method used to analyze above samples.
5.____ Statement of precision and accuracy of analytical method used to analyze above samples.
6.____ Identities and quantities (including mean and standard deviation) provided for each analyzed ingredient.
7.____ Upper and lower certified limits proposed for each active ingredient and intentionally added inert along with explanation of how the limits were determined.
8.____ Upper certified limit proposed for each impurity present at > 0.1% and for certain toxicologically significant impurities at < 0.1% along with explanation of how limit determined.
9.____ Analytical methods to verify certified limits of each active ingredient and impurities (latter not required if exempt from requirement of tolerance or if generally recognized as safe by FDA) are fully described.
10.____ Analytical methods (as discussed in #9) to verify certified limits validated as to their precision and accuracy.

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63 Physical and Chemical Characteristics

ACCEPTANCE CRITERIA

The following criteria apply to the technical grade of the active ingredient being reregistered.

Does your study meet the following acceptance criteria?

63-2 Color
- ____ Verbal description of coloration (or lack of it)
- ____ Any intentional coloration also reported in terms of Munsell color system

63-3 Physical State
- ____ Verbal description of physical state provided using terms such as "solid, granular, volatile liquid"
- ____ Based on visual inspection at about 20-25E C

63-4 Odor
- ____ Verbal description of odor (or lack of it) using terms such as "garlic-like, characteristic of aromatic compounds"
- ____ Observed at room temperature

63-5 Melting Point
- ____ Reported in EC
- ____ Any observed decomposition reported

63-6 Boiling Point
- ____ Reported in EC
- ____ Pressure under which B.P. measured reported
- ____ Any observed decomposition reported

63-7 Density, Bulk Density, Specific Gravity
- ____ Measured at about 20-25E C
- ____ Density of technical grade active ingredient reported in g/ml or the specific gravity of liquids reported with reference to water at 20E C. [Note: Bulk density of registered products may be reported in lbs/ft^3 or lbs/gallon.]

63-8 Solubility
- ____ Determined in distilled water and representative polar and non-polar solvents, including those used in formulations and analytical methods for the pesticide
- ____ Measured at about 20-25E C
- ____ Reported in g/100 ml (other units like ppm acceptable if sparingly soluble)

63-9 Vapor Pressure
- ____ Measured at 25E C (or calculated by extrapolation from measurements made at higher temperature if pressure too low to measure at 25E C)
- ____ Experimental procedure described
- ____ Reported in mm Hg (torr) or other conventional units

63-10 Dissociation Constant
- ____ Experimental method described
- ____ Temperature of measurement specified (preferably about 20-25EC)

63-11 Octanol/water Partition Coefficient
- ____ Measured at about 20-25E C
- ____ Experimentally determined and description of procedure provided (preferred method-45 Fed. Register 77350)
- ____ Data supporting reported value provided

63-12 pH
- ____ Measured at about 20-25E C
- ____ Measured following dilution or dispersion in distilled water

63-13 Stability
- ____ Sensitivity to metal ions and metal determined
- ____ Stability at normal and elevated temperatures
- ____ Sensitivity to sunlight determined

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SUBDIVISION F

Guideline	Study Title
81-1	Acute Oral Toxicity in the Rat
81-2	Acute Dermal Toxicity in the Rat, Rabbit or Guinea Pig
81-3	Acute Inhalation Toxicity in the Rat
81-4	Primary Eye Irritation in the Rabbit
81-5	Primary Dermal Irritation Study
81-6	Dermal Sensitization in the Guinea Pig

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81-1 Acute Oral Toxicity in the Rat

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ At least 5 young adult rats/sex/group.
3.____ Dosing, single oral may be administered over 24 hrs.
4.*___ Vehicle control if other than water.
5.____ Doses tested, sufficient to determine a toxicity category or a limit dose (5000 mg/kg).
6.____ Individual observations at least once a day.
7.____ Observation period to last at least 14 days, or until all test animals appear normal whichever is longer.
8.____ Individual daily observations.
9.____ Individual body weights.
10.____ Gross necropsy on all animals.

Criteria marked with an * are supplemental and may not be required for every study.

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81-2 Acute Dermal toxicity in the Rat, Rabbit or Guinea Pig

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1._____ Identify material tested (technical, end-use product, etc).
2._____ At least 5 animals/sex/group.
3.*____ Rats 200-300 gm, rabbits 2.0-3.0 kg or guinea pigs 350-450 gm.
4._____ Dosing, single dermal.
5._____ Dosing duration at least 24 hours.
6.*____ Vehicle control, only if toxicity of vehicle is unknown.
7._____ Doses tested, sufficient to determine a toxicity category or a limit dose (2000 mg/kg).
8._____ Application site clipped or shaved at least 24 hours before dosing.
9._____ Application site at least 10% of body surface area.
10._____ Application site covered with a porous nonirritating cover to retain test material and to prevent ingestion.
11._____ Individual observations at least once a day.
12._____ Observation period to last at least 14 days.
13._____ Individual body weights.
14._____ Gross necropsy on all animals.

Criteria marked with an * are supplemental and may not be required for every study.

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81-3 Acute Inhalation Toxicity in the Rat

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Product is a gas, a solid which may produce a significant vapor hazard based on toxicity and expected use or contains particles of inhalable size for man (aerodynamic diameter 15 µm or less).
3.____ At least 5 young adult rats/sex/group.
4.____ Dosing, at least 4 hours by inhalation.
5.____ Chamber air flow dynamic, at least 10 air changes/hour, at least 19% oxygen content.
6.____ Chamber temperature, 22E C (±2°), relative humidity 40-60%.
7.____ Monitor rate of air flow.
8.____ Monitor actual concentrations of test material in breathing zone.
9.____ Monitor aerodynamic particle size for aerosols.
10.___ Doses tested, sufficient to determine a toxicity category or a limit dose (5 mg/L actual concentration of respirable substance).
11.___ Individual observations at least once a day.
12.___ Observation period to last at least 14 days.
13.___ Individual body weights.
14.___ Gross necropsy on all animals.

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81-4 Primary Eye Irritation in the Rabbit

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Study not required if material is corrosive, causes severe dermal irritation or has a pH of ≤ 2 or ≥ 11.5.
3.____ 6 adult rabbits.
4.____ Dosing, instillation into the conjunctival sac of one eye per animal.
5.____ Dose, 0.1 ml if a liquid; 0.1 ml or not more than 100 mg if a solid, paste or particulate substance.
6.____ Solid or granular test material ground to a fine dust.
7.____ Eyes not washed for at least 24 hours.
8.____ Eyes examined and graded for irritation before dosing and at 1, 24, 48 and 72 hr, then daily until eyes are normal or 21 days (whichever is shorter).
9.*___ Individual daily observations.

Criteria marked with an * are supplemental and may not be required for every study.

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81-5 Primary Dermal Irritation Study

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.____ Identify material tested (technical, end-use product, etc).
2.____ Study not required if material is corrosive or has a pH of ≤ 2 or ≥ 11.5.
3.____ 6 adult animals.
4.____ Dosing, single dermal.
5.____ Dosing duration 4 hours.
6.____ Application site shaved or clipped at least 24 hours prior to dosing.
7.____ Application site approximately 6 cm^2.
8.____ Application site covered with a gauze patch held in place with nonirritating tape.
9.____ Material removed, washed with water, without trauma to application site.
10.___ Application site examined and graded for irritation at 1, 24, 48 and 72 hr, then daily until normal or 14 days (whichever is shorter).
11.*__ Individual daily observations.

Criteria marked with an * are supplemental and may not be required for every study.

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81-6 Dermal Sensitization in the Guinea Pig

ACCEPTANCE CRITERIA

Does your study meet the following acceptance criteria?

1.___ Identify material tested (technical, end-use product, etc).
2.___ Study not required if material is corrosive or has a pH of < 2 or > 11.5.
3.___ One of the following methods is utilized:
  _____ Freund's complete adjuvant test
  _____ Guinea pig maximization test
  _____ Split adjuvant technique
  _____ Buehler test
  _____ Open epicutaneous test
  _____ Mauer optimization test
  _____ Footpad technique in guinea pig.
4.___ Complete description of test.
5.*__ Reference for test.
6.___ Test followed essentially as described in reference document.
7.___ Positive control included (may provide historical data conducted within the last 6 months).

Criteria marked with an * are supplemental and may not be required for every study.

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Attachment 6. List of All Registrants Sent This Data Call-In (insert) Notice

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Attachment 7. Cost Share Data Compensation Forms, Confidential Statement of Formula Form and Instructions

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Confidential Business Information: Does Not Contain National Security Information (E.O. 12065)

Form Approved. OMB No. 2070-0060. Approval Expires 2/28/94

EPA

United States Environmental Protection Agency
Office of Pesticide Programs (TS-767)
Washington, DC 20460

Confidential Statement of Formula

A. ☐ Basic Formulation ☐ Alternate Formulation

B. Page of

See Instructions on Back

1. Name and Address of Applicant/Registrant *(Include ZIP Code)*

2. Name and Address of Producer *(Include ZIP Code)*

3. Product Name

4. Registration No./File Symbol

5. EPA Product Mgr/Team No.

6. Country Where Formulated

7. Pounds/Gal or Bulk Density

8. pH

9. Flash Point/Flame Extension

EPA USE ONLY	10. Components in Formulation *(List as actually introduced into the formulation. Give commonly accepted chemical name, trade name, and CAS number.)*	11. Supplier Name & Address	12. EPA Reg. No.	13. Each Component in Formulation a. Amount	b. % by Weight	14. Certified Limits % by Weight a. Upper Limit	b. Lower Limit	15. Purpose in Formulation

16. Typed Name of Approving Official

17. Total Weight 100%

18. Signature of Approving Official

19. Title

20. Phone No. *(Include Area Code)*

21. Date

EPA Form 8570-4 (Rev. 12-90) **Previous editions are obsolete.** If you can photocopy this, please submit an additional copy. White - EPA File Copy (original) Yellow - Applicant copy

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Instructions for Completing the Confidential Statement of Formula

The Confidential Statement of Formula (CSF) Form 8570-4 must be used. Two legible, signed copies of the form are required. Following are basic instructions:

a. All the blocks on the form must be filled in and answered completely.

b. If any block is not applicable, mark it N/A.

c. The CSF must be signed, dated and the telephone number of the responsible party must be provided.

d. All applicable information which is on the product specific data submission must also be reported on the CSF.

e. All weights reported under item 7 must be in pounds per gallon for liquids and pounds per cubic feet for solids.

f. Flashpoint must be in degrees Fahrenheit and flame extension in inches.

g. For all active ingredients, the EPA Registration Numbers for the currently registered source products must be reported under column 12.

h. The Chemical Abstracts Service (CAS) Numbers for all actives and inerts and all common names for the trade names must be reported.

i. For the active ingredients, the percent purity of the source products must be reported under column 10 and must be exactly the same as on the source product's label.

j. All the weights in columns 13.a. and 13.b. must be in pounds, kilograms, or grams. In no case will volumes be accepted. Do not mix English and metric system units (i.e., pounds and kilograms).

k. All the items under column 13.b. must total 100 percent.

1. All items under columns 14.a. and 14.b. for the active ingredients must represent pure active form.

m. The upper and lower certified limits for ail active and inert ingredients must follow the 40 CFR 158.175 instructions. An explanation must be provided if the proposed limits are different than standard certified limits.

n. When new CSFs are submitted and approved, all previously submitted CSFs become obsolete for that specific formulation.

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United States Environmental Protection Agency
Washington, DC 20460

CERTIFICATION OF OFFER TO COST SHARE IN THE DEVELOPMENT OF DATA

Form Approved
OMB No. 2070-0106
2070-0057
Approval Expires 3-31-96

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, DC 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0106), Washington, DC 20503.

Please fill in blanks below.

Company Name	Company Number
Product Name	EPA Reg. No.

I Certify that:

My company is willing to develop and submit the data required by EPA under the authority of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), if necessary. However, my company would prefer to enter into an agreement with one or more registrants to develop jointly or share in the cost of developing data.

My firm has offered in writing to enter into such an agreement. That offer was irrevocable and included an offer to be bound by arbitration decision under section 3(c)(2)(B)(iii) of FIFRA if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

Name of Firm(s)	Date of Offer

Certification:

I certify that I am duly authorized to represent the company named above, and that the statements that I have made on this form and all attachments therein are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature of Company's Authorized Representative	Date
Name and Title (Please Type or Print)	

EPA Form 8570-32 (5/91) Replaces EPA Form 8580, which is obsolete

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United States Environmental Protection Agency
Washington, DC 20460

CERTIFICATION WITH RESPECT TO DATA COMPENSATION REQUIREMENTS

Form Approved
OMB No. 2070-0107
2070-0057
Approval Expires 3-31-96

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, DC 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0106), Washington, DC 20503.

Please fill in blanks below.

Company Name	Company Number
Product Name	EPA Reg. No.

I Certify that:

1. For each study cited in support of registration or reregistration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) that is an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter to cite that study.

2. That for each study cited in support of registration or reregistration under FIFRA that is NOT an exclusive use study, I am the original data submitter, or I have obtained the written permission of the original data submitter, or I have notified in writing the company(ies) that submitted data I have cited and have offered to: (a) Pay compensation for those data in accordance with sections 3(c)(1)(D) and 3(c)(2)(D) of FIFRA; and (b) Commence negotiation to determine which data are subject to the compensation requirement of FIFRA and the amount of compensation due, if any. The companies I have notified are: (check one)

   [ ] The companies who have submitted the studies listed on the back of this form or attached sheets, or indicated on the attached "Requirements Status and Registrants' Response Form."

3. That I have previously complied with section 3(c)(1)(D) of FIFRA for the studies I have cited in support of registration or reregistration under FIFRA.

Signature	Date
Name and Title (Please Type or Print)	

GENERAL OFFER TO PAY: I hereby offer and agree to pay compensation to other persons, with regard to the registration or reregistration of my products, to the extent required by FIFRA sections 3(c)(1)(D) and 3(c)(2)(D).

Signature	Date
Name and Title (Please Type or Print)	

EPA Form 8570-31 (4-90)

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APPENDIX G. FACT SHEET

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United States Environmental Protection Agency
Prevention, Pesticides And Toxic Substances (7508W)
EPA-738-F-94-022
September 1994

R.E.D. FACTS

M-Cresol and Xylenol

Pesticide Reregistration

All pesticides sold or distributed in the United States must be registered by EPA, based on scientific studies showing that they can be used without posing unreasonable risks to people or the environment. Because of advances in scientific knowledge, the law requires that pesticides which were first registered years ago be reregistered to ensure that they meet today's more stringent standards.

In evaluating pesticides for reregistration, EPA obtains and reviews a complete set of studies from pesticide producers, describing the human health and environmental effects of each pesticide. The Agency imposes any regulatory controls that are needed to effectively manage each pesticide's risks. EPA then reregisters pesticides that can be used without posing unreasonable risks to human health or the environment.

When a pesticide is eligible for reregistration, EPA announces this and explains why in a Reregistration Eligibility Decision (RED) document. This fact sheet summarizes the information in the RED for m-cresol and xylenol, cases 4027 and 4098, which are formulated together to produce a single pesticide product called Gallex.

Use Profile

M-cresol and xylenol, when formulated together, have bacteriostatic activity against the causal agents of crown gall and olive knot on fruit, ornamental and shade trees and ornamental woody shrubs and vines and control of the genetic/physiological disorder, burr knot, on apples. The pesticide product that contains these two active ingredients, Gallex, is a ready-to-use liquid that is brushed or painted onto the infected areas of trees and ornamentals. Treatments may be made every 4 to 6 months, or about twice a year. Although usage data are not available, EPA assumes that the volume of use is relatively low.

Regulatory History

M-cresol and xylenol were first registered for use as pesticides in the U.S. in 1980. Their initial registration was for a use pattern similar to that of the currently registered product, Gallex. Gallex contains the two active ingredients at a very low concentration (only 0.46% of each).

Human Health Assessment

Cresols (m-cresol and two other isomers) are present at low concentrations in various environmental media including air, car exhaust, wood and coal. Reports that cresols may have tumor promoting activity have not been substantiated by scientific studies. Only acute and subchronic

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toxicity and mutagenicity studies are required for reregistration of m-cresol and xylenol because of their current use patterns.

Toxicity

Technical grade m-cresol causes severe eye and skin irritation and has been placed in Toxicity Category I, indicating the greatest degree of acute toxicity, for these effects. Technical xylenol also is corrosive to the skin, and has been placed in Toxicity Category I for this effect.

The end use product that contains both m-cresol and xylenol has been found to cause slight eye irritation in rabbits and has been assigned to Toxicity Category II for eye effects. It has been found to produce skin sensitization in guinea pigs but does not cause skin irritation in rabbits.

Subchronic toxicity studies by the National Toxicology Program (NTP) of the National Institutes of Health on m-cresol alone and with p-cresol, a related isomer, indicated effects to the kidneys, liver and other organs in rats and mice, particularly at high doses. A dermal study using the formulated product on rabbits showed the product to be corrosive to skin.

M-cresol does not cause developmental toxicity, but causes effects on body and organ weights in reproductive toxicity studies using rats and mice. M-cresol is not mutagenic, and is excreted through urine.

Dietary Exposure

Since m-cresol and xylenol are applied only to the bases of fruit and nut trees, no residues are expected to remain in food or feed commodities. The Agency is requesting the registrant seek an exemption from tolerance (enforceable residue limit).

Occupational and Residential Exposure

Applicators may be exposed to m-cresol and xylenol when applying the end-use product Gallex by paint brush to infected areas of trees and ornamentals. Direct dermal and eye exposures to this product are considered potentially significant because the active ingredients have a high degree of acute toxicity to the eyes and skin. The formulated product Gallex is also considered to be a dermal sensitizer. Use of personal protective equipment (PPE) may mitigate the acute toxicity risks to applicators.

Since no more than four consecutive days of occupational/residential exposure are typically expected, a short term occupational/residential margin of exposure (MOE) was calculated for m-cresol based on maternal toxicity. The MOE for the end-use product, estimated to be 1,017, is acceptable. The Agency also considered intermediate term exposure due to the potential that commercial applicators may be exposed to the end-use

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product for this interval. The intermediate term exposure assessment was based on a 28-day feeding study. The less likely intermediate term exposure revealed a MOE for the end-use product at 308, an acceptable level. There are no post-application worker exposure concerns.

Human Risk Assessment

Dietary exposure to m-cresol and xylenol is not a concern since residues of these pesticides do not remain in the fruit or nuts of treated trees. Applicators face acute toxicity hazards to the skin and eyes. However, these risks will be mitigated by use of PPE, as required by the RED. Considering Gallex's use pattern, the low concentration of each active ingredient in the end use product, the toxicity characteristics of these chemicals, and the acceptable MOE, EPA does not expect significant health risks from short term or intermediate term residential/occupational exposure to m-cresol and xylenol, when used properly as directed.

Environmental Assessment

EPA did not conduct an environmental risk assessment for m-cresol and xylenol and did not require any data on environmental fate or ecotoxicity. The current use pattern of these pesticides and their low volume of use will result in very low environmental exposure, resulting in no threat to wildlife. Non-target organisms including endangered species are not expected to be adversely affected from this use.

Additional Data Required

EPA is requiring product specific data including product chemistry and acute toxicity studies, a revised Confidential Statement of Formula and revised labeling for reregistration of m-cresol and xylenol.

Product Labeling Changes Required

The label of the registered pesticide product containing m-cresol and xylenol must comply with EPA's current pesticide labeling requirements. In addition, Personal Protective Equipment (PPE) must be required on product labeling, as follows:

> "Applicators and other handlers must wear: protective eyewear, chemical resistant gloves, long sleeves, long pants, shoes and socks."

Regulatory Conclusion

Use of the currently registered pesticide product containing m-cresol and xylenol in accordance with approved labeling will not pose unreasonable risks or adverse effects to humans or the environment. Therefore, all uses of these pesticides are eligible for reregistration. The product Gallex will be reregistered once the required product specific data, Confidential Statement of Formula and revised labeling are received and accepted by EPA.

For More

EPA is requesting public comments on the Reregistration Eligibility Decision (RED) document for m-cresol and xylenol during a 60-day time

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Information

period, as announced in a Notice of Availability published in the Federal Register. To obtain a copy of the RED document or to submit written comments, please contact the Pesticide Docket, Public Response and Program Resources Branch, Field Operations Division (7506C), Office of Pesticide Programs (OPP), US EPA, Washington, DC 20460, telephone 703-305-5805.

Following the comment period, the m-cresol and xylenol RED document will be available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone 703-487-4650.

For more information about EPA's pesticide reregistration program, the m-cresol and xylenol RED, or reregistration of the end-use product containing m-cresol and xylenol, please contact the Special Review and Reregistration Division (7508W), OPP, US EPA, Washington, DC 20460, telephone 703-308-8000.

For information about the health effects of pesticides, or for assistance in recognizing and managing pesticide poisoning symptoms, please contact the National Pesticides Telecommunications Network (NPTN). Call toll-free 1-800-858-7378, between 8:00 am and 6:00 pm Central Time, Monday through Friday.

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