United States Environmental Protection Agency
Prevention, Pesticides and Toxic Substances (7510C)
EPA 739-R-07-007
September 2007

Reregistration Eligibility Decision for Trimethoxysilyl Quaternary Ammonium Chloride Compounds

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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

CERTIFIED MAIL

Dear Registrant:

This is to inform you that the Environmental Protection Agency (EPA) has completed its review of the available data on the trimethoxysilyl quaternary ammonium chloride compounds (trimethoxysilyl quats). The Reregistration Eligibility Decision (RED) was approved and signed on September 25, 2007.

Based on the Agency's review of the trimethoxysilyl quats, the Reregistration Eligibility Decision (RED) and supporting documentation are now being published. A Notice of Availability will be published in the *Federal Register* announcing the publication of the RED.

The RED and supporting documents for the trimethoxysilyl quats will be available to the public in EPA's Pesticide Docket EPA-HQ-OPP-2007-0831 at http://www.regulations.gov

Please note that the attached RED document pertains only to the trimethoxysilyl quats compounds and presents the Agency's conclusions on risks associated with the uses of these compounds. Based on the information contained in our files, these compounds have been identified as low risk chemicals. This document also identifies generic and product-specific data for which the Agency intends to issue Data Call-Ins (DCIs). As part of the RED, the Agency has determined that the trimethoxysilyl quats are eligible for reregistration.

If you have questions pertaining to this document, please contact Melba Morrow at (703) 308-2716. Note that DCIs with all pertinent instructions will be sent to the registrant at a later date. Additionally, for product-specific DCIs, the first set of required responses will be due 90 days from the receipt of the DCI letter. The second set of required responses will be due eight months from the receipt of the DCI letter. For questions regarding product reregistration please contact Velma Noble at (703) 308-6233.

Sincerely,

Frank T. Sanders
Director, Antimicrobials Division

REREGISTRATION ELIGIBILITY DECISION

for

Trimethoxysilyl Quaternary Ammonium Chloride Compounds
List C
Case No. 3148

Approved By:

Frank T. Sanders
Director, Antimicrobials Division
September 25, 2007

TABLE OF CONTENTS

Trimethoxysilyl Quaternary Ammonium Chloride Reregistration Team

Health Effects Risk Assessment
Timothy McMahon, Ph.D.

Chemical Manager
Melba Morrow, DVM
Diane Isbell

Registration Support
Tracy Lantz
Jacqueline Campbell-McFarland

Product Chemistry
Najm Shamim, Ph.D.

Environmental Fate
James Breithaupt

Ecological Hazard and Environmental Risk
Genevieve Angle

GLOSSARY OF TERMS AND ABBREVIATIONS

AE	Acid Equivalent
AD	Antimicrobials Division
ADTC	Antimicrobials Division Toxicology Endpoint Selection Committee
a.i.	Active Ingredient
aPAD	Acute Population Adjusted Dose
AR	Anticipated Residue
ARC	Anticipated Residue Contribution
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CI	Cation
CNS	Central Nervous System
cPAD	Chronic Population Adjusted Dose
CSF	Confidential Statement of Formula
CFR	Code of Federal Regulations
CSFII	USDA Continuing Surveys for Food Intake by Individuals
DCI	Data Call-In
DEEM	Dietary Exposure Evaluation Model
DFR	Dislodgeable Foliar Residue
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, noncarcinogenic health effects are not anticipated to occur.
DWLOC	Drinking Water Level of Comparison.
EC	Emulsifiable Concentrate Formulation
EDSP	Endocrine Disruptor Screening Program
EDSTAC	Endocrine Disruptor Screening and Testing Advisory Committee
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
EPISUIT	Environmental Protection Agency, Estimation Program Interface Suite
FAO	Food and Agriculture Organization
FDA	Food and Drug Administration
FFDCA	Federal Food, Drug, and Cosmetic Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
Fl. oz.	Fluid Ounces
FOB	Functional Observation Battery
FQPA	Food Quality Protection Act
FWS	United States Fish and Wildlife Services
G	Granular Formulation
GENEEC	Tier I Surface Water Computer Model
GLC	Gas Liquid Chromatography
GLN	Guideline Number
GM	Geometric Mean
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.
HAFT	Highest Average Field Trial
HDT	Highest Dose Tested
HPV	High Production Volume
IDS	Incident Data System
IR	Index Reservoir
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.
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.
LEL	Lowest Effect Level
LOC	Level of Concern
LOD	Limit of Detection
LOAEL	Lowest Observed Adverse Effect Level
MATC	Maximum Acceptable Toxicant Concentration
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.
mg/kg/day	Milligram Per Kilogram Per Day
mg/L	Milligrams Per Liter
MOE	Margin of Exposure
MP	Manufacturing-Use Product
MPI	Maximum Permissible Intake
MRID	Master Record Identification (number). EPA's system of recording and tracking studies submitted.
NA	Not Applicable
N/A	Not Applicable
NAWQA	USGS National Water Quality Assessment
NMFS	National Marine Fishery Service
NOEC	No Observable Effect Concentration
NOEL	No Observed Effect Level
NOAEL	No Observed Adverse Effect Level
NPDES	National Pollutant Discharge Elimination System
NPTN	National Pesticide Telecommunications Network
NR	Not Required
OP	Organophosphate
OPP	EPA Office of Pesticide Programs
OPPTS	EPA Office of Prevention, Pesticides and Toxic Substances
Pa	Pascal, the pressure exerted by a force of one newton acting on an area of one square meter.
PAD	Population Adjusted Dose
PCC	National Poison Control Center
PADI	Provisional Acceptable Daily Intake
PAG	Pesticide Assessment Guideline
PAM	Pesticide Analytical Method
PCA	Percent Crop Area
PDP	USDA Pesticide Data Program
PHED	Pesticide Handler's Exposure Data
PHI	Preharvest Interval
ppb	Parts Per Billion
PPE	Personal Protective Equipment
ppm	Parts Per Million
PRN	Pesticide Registration Notice
PRZM/ EXAMS	Tier II Surface Water Computer Model
Q_1*	The Carcinogenic Potential of a Compound, Quantified by the EPA's Cancer Risk Model
RAC	Raw Agriculture Commodity
RBC	Red Blood Cell
RED	Reregistration Eligibility Decision
REI	Restricted Entry Interval
RfD	Reference Dose

RQ	Risk Quotient
RS	Registration Standard
RUP	Restricted Use Pesticide
SAP	Science Advisory Panel
SAR	Structure Activity Relationship Assessment
SCI-GROW	Tier I Ground Water Computer Model
SF	Safety Factor
SLC	Single Layer Clothing
SLN	Special Local Need (Registrations Under Section 24(c) of FIFRA)
TC	Toxic Concentration. The concentration at which a substance produces a toxic effect.
TD	Toxic Dose. The dose at which a substance produces a toxic effect.
TEP	Typical End-Use Product
TGAI	Technical Grade Active Ingredient
TLC	Thin Layer Chromatography
TMRC	Theoretical Maximum Residue Contribution
torr	A unit of pressure needed to support a column of mercury 1 mm high under standard conditions.
TRR	Total Radioactive Residue
UF	Uncertainty Factor
ug/g	Micrograms Per Gram
ug/L	Micrograms Per Liter
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UV	Ultraviolet
WHO	World Health Organization
WP	Wettable Powder
WPS	Worker Protection Standard

ABSTRACT

The Environmental Protection Agency (EPA or the Agency) has completed its human health and environmental review for the reregistration case 3148; Trimethoxysilyl Quaternary Ammonium Chloride Compounds, and is issuing its risk management decision. There are currently 30 active products for this group of compounds. This includes chemical codes 107401, 107403,107409 and 169160. Chemical code 107403 is a trihydroxysilyl quat compound that has been included in this action. The decision to include this compound is based on the finding that when exposed to water, the trimethoxysilyl quats undergo a chemical reaction which leads to the formation of trihydroxysilyl quats.

The following Reregistration Eligibility Decision (RED) addresses the use of the trimethoxysilyl and trihydroxysilyl quats as bacteriastatic and fungistatic treatments in human clothing and bedding, household areas, carpets and upholstery. These products are also used as material preservatives in the manufacturing of paints, coatings, and concrete. Collectively, these compounds will be referred to as trimethoxysilyl quats.

I. Introduction

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) was amended in 1988 to accelerate the reregistration of products with active ingredients registered prior to November 1, 1984. The amended Act calls for the development and submission of data to support the reregistration of an active ingredient (a.i.), as well as a review of all submitted data by the U.S. Environmental Protection Agency. Reregistration involves a thorough review of the scientific database underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential risks arising from the currently registered uses of the pesticide; to determine the need for additional data on human health and environmental effects; and to determine whether or not the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA.

On August 3, 1996, the Food Quality Protection Act of 1996 (FQPA) was signed into law. This Act amends FIFRA to require tolerance reassessment. The Agency has decided that, for those chemicals that have tolerances and are undergoing reregistration, the tolerance reassessment will be initiated through this reregistration process. The Act also requires that by 2006, EPA must review all tolerances in effect on the day before the date of the enactment of the FQPA. FQPA also amends the Federal Food, Drug, and Cosmetic Act (FFDCA) to require a safety finding in tolerance reassessment based on factors including consideration of cumulative effects of chemicals with a common mechanism of toxicity. This document presents the Agency’s human health and ecological risk assessments and the Reregistration Eligibility Decision (RED) for the trimethoxysilyl quats.

As active ingredients trimethoxysilyl quats are used as materials preservatives for, paints (in can), coatings, textiles (such as those used in human bedding, footwear, clothing/apparel, upholstery, diapers and carpet), sails, ropes, fire hose, concrete additive, roofing materials, filter media and polyurethane foam and cellulose products and cleaning buffers. The chemical is also formulated to provide residual fungistatic activity in household and domestic dwellings on hard non-porous surfaces, bathroom premises (hard non-porous surfaces), and in garbage cans.

The Agency has concluded that the FQPA Safety Factor for the trimethoxysilyl quats should be reduced to 3X based on: (1) the potential for significant contact of infants and children through the proposed homeowner uses for this active ingredient and (2) no evidence of increased susceptibility in the prenatal developmental study in rats nor is there evidence of neurotoxicity to the offspring.

Risks summarized in this document are those that result from the use of the active ingredients octadecanaminum-N-N-dimethyl(3-trimethoxysilyl)propyl chloride; octadecanaminum-N-N dimethyl(3 trihydroxy silyl)propyl chloride; tetradecanaminum-N-N dimethyl (3trimethoxysilyl)propyl chloride; and didecyl N-methyl-(3trimethoxysilyl)propanaminum chloride. The chemicals have been grouped as trimethoxysilyl quaternary ammonium compounds for the purpose of reregistration.

The Food Quality Protection Act (FQPA) requires that the Agency consider available information concerning the cumulative effects of a particular pesticide's residues and other substances that have a common mechanism of toxicity. The reason for consideration of other substances is due to the possibility that low-level exposures to multiple chemical substances that cause a common toxic effect by a common toxic mechanism could lead to the same adverse health effect that would occur at a higher level of exposure to any of the substances individually. Unlike other pesticides for which EPA has followed a cumulative risk approach based on a common mechanism of toxicity, EPA has not made a common mechanism of toxicity finding for the trimethoxysilyl quats and any other substances. The trimethoxysilyl quats do not appear to produce a toxic metabolite produced by other substances. For the purposes of this action, therefore, EPA has not assumed that the trimethoxysilyl quats have a common mechanism of toxicity with other substances. For information regarding EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the policy statements released by EPA's Office of Pesticide Programs concerning common mechanism determinations and procedures for cumulating effects from substances found to have a common mechanism on EPA's website at http://www.epa.gov/pesticides/cumulative.

This document presents the Agency's decision regarding the reregistration eligibility of the registered uses of the trimethoxysilyl quats. In an effort to simplify the RED, the information presented herein is summarized from more detailed information which can be found in the technical supporting documents for the trimethoxysilyl quats referenced in this RED. The risk assessments and related addenda are not included in this document, but are available in the Public Docket at http://www.regulations.gov (EPA-HQ-OPP-2007-0831).

This document consists of six sections. Section I is the introduction. Section II provides a chemical overview, a profile of the use and usage of the trimethoxysilyl quats and the regulatory history. Section III, Summary of Trimethoxysilyl Quats Risk Assessment, gives an overview of the human health and environmental assessments, based on the information available to the Agency. Section IV, Risk Management, and Reregistration presents the reregistration eligibility and risk management decisions. Section V, What Registrants Need to Do, summarizes the necessary label changes based on the risk mitigation measures outlined in Section IV. Finally, the Appendices list all use patterns eligible for reregistration, bibliographic information, related documents and how to access them, and Data Call-In (DCI) information.

II. CHEMICAL OVERVIEW

A. Regulatory History

The trimethoxysilyl quats are registered as active ingredients as bacteriastatic, algaestatic and fungistatic compounds. The first products containing a trimethoxysilyl quat were registered in January 1960. There are currently a total of 30 registered products for PC Codes107401, 169160, 107403 and 107409. The Agency has determined that the Reregistration Eligibility Decision (RED) will include all of the aforementioned products, which includes a trihydroxysilyl quat (107403). This decision is supported by the finding that when the methoxysilyl quat compounds are exposed to water, there is a reaction which leads to the formation of hydroxysilyl quat compounds.

Trimethoxysilyl quat and trihydroxysilyl quat containing products are currently used as a material preservative treatment for materials such as those used in human clothing and bedding, carpets and upholstery. The trimethoxysilyl quats are used as surface treatments in household areas and bathroom areas. These products are also used in the manufacturing of paints, coatings, and in concrete. There are no inert uses or tolerances for this reregistration case.

B. Chemical Identification:

Table 1 contains information on the chemicals included in this RED.

Table 1: Physical and Chemical Properties

Chemical name	**1-Octadecanaminium-N,N-dimethyl-N-{3-(trimethoxysilyl)propyl}-chloride**	**1-tetradecanaminium, N,N-dimethyl-N-(3-(trimethoxysilyl)propyl)-chloride**	**1-Decanaminium,N-Didecyl-N-methyl-N-{3-(trimethoxysilyl)propyl)-chloride**	**1-ocatdecananminium-N,N-dimethyl-N-(3-(trihydroxysilyl)propyl)-chloride**
Empirical Formula	$C_{26}H_{58}ClNO_3Si$	$C_{22}H_{50}ClNO_3Si$	$C_{27}H_{60}ClNO_3Si$	$C_{23}H_{52}ClNO_3Si$
CAS #	27668-52-6	41591-87-1	6895920-6	199111-50-7
OPP Chemical Code	107401	107409	169160	107403
Molecular Weight	496.30	440.31	510.3	454
Physical State	liquid	liquid	liquid	liquid
Color	Pale yellow to off white	Clear yellowish	Light to dark amber	clear
Melting Point	267 C	245 C	272 C	306 C
Boiling Point	617 C	570 C	628 C	702 C
Specific Gravity	0.99	1.012	0.85	1.0
Vapor Pressure	5.8×10^{-14} mm Hg	1.7×10^{-12}	2.4×10^{-14}	1.85×10^{-21}

Basic Manufacturers: Aegis Environmental Mgt, Inc., Sishield Technologies Inc., Sanitized Inc., Microbioguard, International Biochemical Industries, Inc.

C. Use Profile

The following section provides information on the currently registered uses of the trimethoxysilyl quat products. Included is an overview of the use sites and application methods for these compounds. Please refer to appendix A for a comprehensive table of uses of the trimethoxysilyl quats that are eligible for reregistration.

Type of Pesticide: Material preservatives, bacteriastatic, fungistatic, antimicrobial and algaestatic treatments

Use Sites: Trimethoxysilyl quats are used in industrial, commercial, institutional and residential premises.

Use Classification: Trimethoxysilyl quats are general use pesticides.

Formulation Types: Trimethoxysilyl quats are formulated as a soluble concentrate for both manufacturing and end use products and as a ready to use solution for end use products.

Application Rates/Methods: As a materials preservative and surface treatment, trimethoxysilyl quats are applied by open pour methods or by spraying, dipping or soaking, depending upon the material that is being treated. The application rates vary based on product and use site. A complete list can be found as part of Appendix A.

III. SUMMARY OF RISK ASSESSMENT for TRIMETHOXYSILYL QUATS

The purpose of this summary is to assist the reader by identifying the key features and findings of these risk assessments, and to help the reader better understand the conclusions reached in the assessments. The human health and ecological risk assessment documents and supporting information listed in Appendix C were used to formulate the safety finding and regulatory decision for trimethoxysilyl quats. While the risk assessments and related addenda are not included in this document, they are available from the OPP Public Docket and may also be accessed on the Agency's website at http//www.regulations.gov(EPA-HQ-OPP-2007-0831). Hard copies of these documents may be found in the OPP public docket under docket number OPP-2007-0831. The OPP public docket is located in Room S-4400, One Potomac Yard (South Building) 2777South Crystal Drive, Arlington, VA, and is open Monday through Friday, excluding Federal holidays, from 8:30 a.m. to 4:00 p.m.

A. Human Health Risk Assessment

1. Toxicity of Trimethoxysilyl Quats

A brief overview of the toxicity of the trimethoxysilyl quats is presented below. Further information on the toxicity of this compound can be found in Appendix C in a risk characterization document dated February 2, 2000.

The Agency has reviewed all toxicity studies submitted for the trimethoxysilyl quats and has determined that the toxicological database is sufficient for reregistration. The toxicological database for trimethoxysilyl quats is currently comprised of unpublished studies submitted to the Agency; however, limited data are available for these compounds. The data matrix for trimethoxysilyl quats includes acute toxicity studies, a subchronic dermal toxicity study, one subchronic oral study in rats, one developmental toxicity study in rats, and six mutagenicity studies (four of which have been classified as being acceptable).

Table 2. Toxicity of Trimethoxysilyl Quats

Test	Species	Results	MRID
Oral LD_{50}	Rat	>5000 mg/kg (Toxicity Category IV)	40385201
Dermal LD_{50}	Rabbit	>2000 mg/kg (Toxicity Category III)	40385201
Inhalation LC_{50}	Rat	>2.0 mg/L (1-Hour) (Toxicity Category IV)	Not available*
Eye Irritation	Rat	Severe Ocular Toxicity (Toxicity Category I)	403385201
Dermal Irritation	Rabbit	Severe dermal toxicity (Toxicity Category I)	Not available*
Subchronic dermal toxicity	Rat	Dermal and Systemic NOAEL $\geq$ 1000 mg/kg/day	41339403
Subchronic oral toxicity	Rat	NOAEL $\geq$ 240 mg/kg/d (HDT)	46280411
Developmental Toxicity	Rat	Maternal NOAEL $\geq$ 1000 mg/kg/day Developmental NOAEL $\geq$ 1000 mg/kg/day	41438003
Ames Salmonella Assay	Salmonella	No increase in number of revertant colonies (unacceptable study)	40385211
In-vitro Reverse Mutation Assay	Salmonella, E-coli	No evidence of induced mutant colonies	46280412
In-vitro Forward Mutation Assay	Salmonella, E-coli	No evidence of mutagenicity	46280413
Chromosome Aberration	Chinese hamster cells	No association with the induction of structural chromosome aberrations	46280414
Mouse Micronucleus	Mouse	No evidence of compound induced cytotoxicity	41296803
Unscheduled DNA Synthesis	Hepatocytes	Unacceptable study	41296804

* These studies are summarized in the data base for the trimethoxysilyl quats, however, accession/MRID numbers were not included on the study reviews.

General Toxicity Observations

Upon reviewing the available toxicity information, the Agency has concluded that there are no endpoints of concern for repeated oral or dermal exposure to the trimethoxysilyl quats. This conclusion is based on low toxicity observed in acute, subchronic and developmental studies conducted with the trimethoxysilyl quat compounds. The risk from inhalation exposure has not been characterized and an additional study designed to assess inhalation toxicity over time may be needed. In addition, severe toxicity has been observed with regard to skin and eye irritation.

Carcinogenicity Classification

There are no concerns for carcinogenicity for the trimethoxysilyl quats based on the results of the mutagenicity studies and the lack of any systemic toxicity being observed in the toxicity data base; therefore, no carcinogenic analysis is required.

Mutagenicity Potential

The mutagenicity of the trimethoxysilyl quats is fully characterized. For all of the compounds covered under this RED, there are a total of four acceptable mutagenicity studies, all of which demonstrate that the trimethoxysilyl quats are negative for mutagenicity.

2. FQPA Safety Factor

The FQPA Safety Factor (as required by the Food Quality Protection Act of 1996) is intended to provide an additional 10-fold safety factor (10X) to protect for special sensitivity in infants and children to specific pesticide residues in food, drinking water, residential exposures, or to compensate for an incomplete database. The FQPA Safety Factor has been reduced to 3X based on: (1) the potential for significant contact of infants and children through the proposed homeowner uses for this active ingredient and (2) no evidence of increased susceptibility in the prenatal developmental study in rats nor is there evidence of neurotoxicity to the offspring. It should be pointed out that at this time, there are no risks of concern which would require the use of a FQPA safety factor.

3. Population Adjusted Dose (PAD)

Dietary risk is characterized in terms of the Population Adjusted Dose (PAD), which reflects the reference dose (RfD), either acute or chronic, that has been adjusted to account for the FQPA Safety Factor (SF). This calculation is performed for each population subgroup. A risk estimate that is less than 100% of the acute or chronic PAD is not of concern. Since toxicological endpoints for the risk assessment were not identified based on the available data, RfDs and PADs have not been calculated for trimethoxysilyl quats. In addition there does not appear to be oral exposure to this chemical based on use patterns.

4. Dietary and Residential Risk Assessment

There are currently no dietary exposure scenarios for the trimethoxysilyl quats. Although there are residential uses for trimethoxysilyl compounds, there are no toxicological endpoints of concern based on the available toxicity data.

5. Aggregate Risk

The Food Quality Protection Act amendments to the Federal Food, Drug, and Cosmetic Act require “that there is a reasonable certainty that no harm will result from aggregate exposure to pesticide chemical residue, including all anticipated dietary exposures and other exposures for which there are reliable information”(FFDCA, Section 408(b)(2)(A)(ii)). Aggregate exposure will typically include exposures from food, drinking water, residential uses of a pesticide and other non-occupational sources of exposure. Residential exposure to the trimethoxysilyl quats is likely; however there are no toxicological endpoints of concern. An aggregate risk assessment was therefore not conducted for this chemical.

6. Occupational Exposure

The occupational exposure assessment for the trimethoxysilyl quats addresses potential exposures and risks to humans who may be exposed in "occupational settings." An occupational risk assessment is required for an active ingredient if certain toxicological criteria are triggered and there is potential exposure to handlers (mixers, loaders, applicators, etc.) during use or to persons entering treated sites after application is complete. For the trimethoxysilyl quats there is potential for exposure; however, there are no toxicological endpoints of concern according to a review of the available toxicity data.

7. Human Incident Data

EPA consulted the following sources of information for human poisoning incidents related to the trimethoxysilyl quats: (1) OPP Incident Data System (IDS), (2) California Department of Pesticide Regulation (1982-2004) and (3) National Pesticide Information Center (NPIC). There were no human incidents reported for the trimethoxysilyl quats in these data bases.

B. Environmental Risk Assessment

A summary of the Agency's environmental risk assessment is presented below. The following risk characterization is based on the use sites for the trimethoxysilyl quats and any associated uncertainties. For further information concerning all aspects about the environmental risk assessment refer to the product chemistry, environmental fate and ecological toxicology in the trimethoxysilyl quats risk assessment available on the Agency's website in the EPA Docket at http://www.regulations.gov.

1. Environmental Fate and Transport

The Agency has conducted an environmental fate assessment dated September 19, 2007 for the trimethoxysilyl quats. The hydrolysis data indicate that the trimethoxysilyl quats are soluble but not stable in water. Environmental fate studies for the trimethoxysilyl quats consist of only a hydrolysis study and it was concluded by the Agency that no further fate studies would be required because of the instability of the compounds and the formation of an insoluble silane degradate. The trimethoxysilyl quats are not expected to contaminate surface or ground water due to rapid degradation by hydrolysis.

2. Ecological Risk

The Agency expects exposure to the trimethoxysilyl quats to be minimal to avian, fresh water estuarine/marine aquatic organisms and plants based on the registered indoor use patterns.

a. Toxicity (Hazard) Assessment

The results from the avian acute toxicity and dietary studies and from the freshwater invertebrate acute toxicity studies for the trimethoxysilyl quats are summarized in Table 3. The trimethoxysilyl quats are characterized as practically non-toxic to birds and based on the data in the Agency's files, the chemical is considered highly toxic to freshwater invertebrates in acute studies. The trimethoxysilyl quats are classified as being moderately toxic to coldwater fish species.

Table 3: Ecological Acute Toxicity Studies

Test and Organism	Chemical PC Code	Results	Toxicity Category
Acute Toxicity LC_{50} Rainbow Trout	169160	96 hour LC_{50} = 1.73 mg/L	Moderately toxic
Single Dose Oral LD_{50} Mallard Duck	107401	LD_{50} > 1590 mg/kg	Practically non-toxic
Dietary LC_{50} Mallard Duck	107401	LC_{50} > 5620 mg/L	Practically Non-toxic
Eight –day Dietary LC_{50} Bobwhite Quail	169160	LC_{50} > 5620 mg/L	Practically Non-toxic
Acute Toxicity LC_{50} Freshwater Daphnids	169160	LC_{50}=0.18mg/L	Highly toxic

b. Risk to Threatened and Endangered Species

It is expected that the proposed uses for the trimethoxysilyl quats will involve minimal environmental exposure from registered use patterns. However, an endangered species effect determination has not been made at this time because a more refined assessment that would include direct, indirect and habitat effects, has not been conducted.

IV. RISK MANAGEMENT AND REREGISTRATION DECISION

A. Determination of Reregistration Eligibility

Section 4(g)(2)(A) of FIFRA calls for the Agency to determine after submission of relevant data concerning an active ingredient, whether or not products containing the active ingredient are eligible for reregistration. The Agency has previously identified and required the submission of generic (i.e., active ingredient-specific) data to support reregistration of products containing the trimethoxysilyl quats as an active ingredient. The Agency has completed its review of the generic data and has determined that the data are sufficient to support reregistration of products containing the trimethoxysilyl quats.

The Agency has completed its assessment of the dietary, occupational and ecological risks associated with the use of pesticide products containing trimethoxysilyl quats as the active ingredient. Based on a review of the data and other available information for the active ingredient, the Agency has concluded that there is sufficient information on the human health and ecological effects of the trimethoxysilyl quats to make decisions as part of the reregistration process under FIFRA, as amended by FQPA. The Agency has determined that products containing trimethoxysilyl quats are eligible for reregistration provided that current data gaps and confirmatory data needs are addressed. Appendix A summarizes the uses of the trimethoxysilyl quats that are eligible for reregistration. Appendix B identifies the generic data requirements that the Agency reviewed as part of its determination of reregistration eligibility of the trimethoxysilyl quats and lists the submitted studies that the Agency found acceptable. Data gaps are identified as generic data requirements that have not been satisfied with acceptable data.

Based on the evaluation of the trimethoxysilyl quats, the Agency has determined there are no human health or ecological risks of concern.

B. Public Comments and Responses

Risk assessments for the trimethoxysilyl quats were not issued for public comment per the Agency's public participation process because no toxicological endpoints were identified, and as such, these assessments were qualitative in nature. To ensure that an opportunity is presented to the public to comment on the risk assessments and risk management decisions for the trimethoxysilyl quats, the Agency will implement a 60-day comment period on this RED.

C. Regulatory Position

1. Food Quality Protection Act Findings

An FQPA Safety Factor of 3X was recommended for the trimethoxysilyl quat compounds. Although there are no food uses for these compounds, it is likely that infants and children will be exposed to these compounds through the existing uses. The FQPA Safety Factor was reduced to 3X, based on the findings that there was no evidence of increased susceptibility in the prenatal developmental study in rats and there was no evidence of neurotoxicity to the

offspring. There is a lack of a second developmental toxicity study in a second species for this active ingredient and a lack of a two-generation reproduction study.

2. Endocrine Disruptor Effects

EPA is required under the Federal Food, Drug and Cosmetic Act (FFDCA), as amended by the Food Quality Protection Act (FQPA), to develop a screening program to determine whether certain substances (including all pesticide active and other ingredients) "may have an effect in humans that is similar to an effect produced by a naturally occurring estrogen, or other endocrine effects as the Administrator may designate." Following recommendations of its Endocrine Disruptor Screening and Testing Advisory Committee (EDSTAC), EPA determined that there was a scientific basis for including, as part of the program, the androgen and thyroid hormone systems, in addition to the estrogen hormone system. EPA also adopted EDSTAC's recommendation that EPA include evaluations of potential effects in wildlife. For pesticides, EPA will use FIFRA and to the extent that effects in wildlife may help determine whether a substance may have an effect in humans, FFDCA authority to require the wildlife evaluations. As the science develops and resources allow, screening of additional hormone systems may be added to the Endocrine Disruptor Screening Program (EDSP).

When appropriate screening and testing protocols that are currently being considered under the Agency's EDSP have been developed, the trimethoxysilyl quats may be subjected to additional screening and/or testing to better characterize effects related to endocrine disruption.

3. Cumulative Risks

Risks summarized in this document are those that result only from the use of the triemthoxysilyl quats. The Food Quality Protection Act (FQPA) requires that the Agency consider "available information" concerning the cumulative effects of a particular pesticide's residue and "other substances that have a common mechanism of toxicity." The reason for consideration of other substances is due to the possibility that low-level exposures to multiple chemical substances that cause a common toxic effect by a common toxic mechanism could lead to the same adverse health effect as would a higher level of exposure to any of the substances individually. Unlike other pesticides for which the EPA has followed a cumulative risk approach based on a common mechanism of toxicity, the EPA has not made a common mechanism of toxicity finding for the trimethoxysilyl quats. For further information regarding the EPA's efforts to determine which chemicals have a common mechanism of toxicity and to evaluate the cumulative effects of such chemicals, see the policy statement released by EPA's Office of Pesticide Programs concerning common mechanism determinations and procedures for cumulating effects from substances found to have a common mechanism on EPA's website at: http://www.epa.gov/pesticides/cumulative/.

D. Regulatory Rationale

The following is a summary of the rationale for managing risks associated with the use of the trimethoxysilyl quats as an active ingredient. The Agency believes there is reasonable certainty of no harm resulting from exposure to the trimethoxysilyl quats as an active ingredient to the general population and to infants and children in particular. This is based on the existing toxicity data which supports the finding that these products did not elicit a toxic response when administered to laboratory animals at the limit dose level. In addition, in conducting a human health hazard assessment, the Agency found that there were no endpoints of concern for the oral and dermal routes of exposure.

The Agency believes that the trimethoxysilyl quats have minimal potential to cause human health or environmental risks and has determined that a qualitative approach to assessing human health and ecological risks from exposure to the trimethoxysilyl quats is appropriate. Therefore, no risk mitigation measures are necessary at this time.

1. Listed species Considerations

a. The Endangered Species Act

Section 7 of the Endangered Species Act, 16 U.S.C. Section 1536(a)(2), requires all federal agencies to consult with the National Marine Fisheries Service (NMFS) for marine and anadromous listed species, or the United States Fish and Wildlife Services (FWS) for listed wildlife and freshwater organisms, if they are proposing an "action" that may affect listed species or their designated habitat. Each federal agency is required under the Act to insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. To jeopardize the continued existence of a listed species means “to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of the species” (50 C.F.R. § 402.02).

To facilitate compliance with the requirements of the Endangered Species Act subsection (a)(2), the Environmental Protection Agency, Office of Pesticide Programs has established procedures to evaluate whether a proposed registration action may (directly or indirectly) significantly reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of any listed species (U.S. EPA 2004). After the Agency’s screening-level risk assessment is performed, if any of the Agency’s Listed Species LOC Criteria are exceeded for either direct or indirect effects, a determination is made to identify if any listed or candidate species may co-occur in the area of the proposed pesticide use. If it is determined that listed or candidate species may be present in the proposed use areas, further biological assessment is undertaken. The extent to which listed species may be at risk determines the need for the development of a more comprehensive consultation package as required by the Endangered Species Act.

For certain use categories, the Agency assumes there will be minimal environmental exposure, and only a minimal toxicity data set is required (*Overview of the Ecological Risk Assessment Process in the Office of Pesticide Programs U.S. Environmental Protection Agency - Endangered and Threatened Species Effects Determinations*, 1/23/04, Appendix A, Section IIB, pg.81). Chemicals in these categories therefore do not undergo a full screening-level risk assessment and are considered to fall under a "no effect" determination. Due to the low likelihood of exposure and the low toxicity of the trimethoxysilyl quats, the Agency expects no effects to listed species; however, an endangered species no effect determination has not been made at this time because an assessment has not been made which includes direct, indirect and habitat effects.

b. General Risk Mitigation

Trimethoxysilyl quat end-use products (EPs) may also contain other registered pesticides. Although the Agency is not proposing any mitigation measures for products containing trimethoxysilyl quats specific to federally listed, threatened and endangered species, the Agency needs to address potential risks from other end-use products. Therefore, the Agency requires that users adopt all threatened and endangered species risk mitigation measures for all active ingredients in the product. If a product contains multiple active ingredients with conflicting threatened and endangered species risk mitigation measures, the more stringent measure(s) should be adopted.

2. Labeling

a. Label Amendment

Currently, no label amendments are necessary in order for trimethoxysilyl quat products to be eligible for reregistration.

V. WHAT REGISTRANTS NEED TO DO

The Agency has determined that the trimethoxysilyl quats are eligible for reregistration provided that additional data are submitted to confirm this decision. In the near future, the Agency intends to issue Data Call-In Notices (DCIs) requiring product-specific data and additional generic (technical grade) data. Generally, registrants will have 90 days from receipt of a DCI to complete and submit response forms or to request time extension and or waiver requests with a full written justification. For product-specific data, the registrant will have eight months to submit data and amended labels. For generic data, due dates can vary depending on the specific studies being required.

The registrant needs to submit the following items:

Within 90 days from receipt of the generic data call in (DCI):

1. Completed response forms to the generic DCI (i.e., DCI response form and requirements status and registrant's response form); and,

2. Submit any time-extension and/or waiver requests with a full written justification.

Within the time limit specified in the generic DCI:

1. Cite any existing generic data which address data requirements or submit new generic data responding to the DCI.

Please contact Melba Morrow at (703) 308-2716 with questions regarding generic reregistration.

By US mail:
Document Processing Desk (DCI/AD)
Melba Morrow
US EPA (7510P)
1200 Pennsylvania Ave., NW
Washington, DC 20460

By express or courier service:
Document Processing Desk (DCI/AD)
Melba Morrow
Office of Pesticide Programs (7510P)
One Potomac Yard (South Building)
2777 South Crystal Drive
Arlington, VA 22202

The registrant needs to submit the following items for each product.

Within 90 days from the receipt of the product-specific data call-in (PDCI):

1. Completed response forms to the PDCI (i.e., PDCI response form and requirements status and registrant's response form); and

2. Submit any time extension or waiver requests with a full written justification.

Within eight months from the receipt of the PDCI:

1. Two copies of the confidential statement of formula (EPA Form 8570-4);

2. A completed original application for reregistration (EPA Form 8570-1). Indicate on the form that it is an "application for reregistration";

3. Five copies of the draft label incorporating all label amendments outlined in Table 13 of this document;

4. A completed form certifying compliance with data compensation requirements (EPA Form 8570-34);

5. If applicable, a completed form certifying compliance with cost share offer requirements (EPA Form 8570-32); and

6. The product-specific data responding to the PDCI.

Please contact Velma Noble at (703) 308-6233 with questions regarding product reregistration and/or the PDCI. All materials submitted in response to the PDCI should be addressed as follows:

By US mail:
Document Processing Desk (PDCI/PRB)
Velma Noble
US EPA (7510C)
1200 Pennsylvania Ave., NW
Washington, DC 20460

By express or courier service:
Document Processing Desk (PDCI/PRB)
Velma Noble
Office of Pesticide Programs (7510C)
Room 266A, Crystal Mall 2
1801 South Bell Street
Arlington, VA 22202

A. Manufacturing-Use Products

There are currently no registered manufacturing-use products for the trimethoxysilyl quats; therefore, the end-use manufacturer is responsible for the submission of any generic data requirements requested by the Agency.

1. Additional Generic Data Requirements

The generic data base supporting the reregistration of the trimethoxysilyl quats for the above eligible uses has been reviewed and determined to be substantially complete. However, the following additional data requirements have been identified by the Agency and are included in the generic DCI for this RED.

Table 4: Data Requirements for the Reregistration Eligibility Decision for the Trimethoxysilyl Quats

Guideline Study Name	New OPPTS Guideline No.	Old Guideline No.
Fresh Water Fish Acute Toxicity Study with TGAI	850.1075	72-1
Fresh Water Invertebrate Acute Toxicity Study with TGAI	850.1010	72-2

B. End-Use Products

1. Additional Product-Specific Data and Efficacy 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 registrant must review previous data submissions to ensure that they meet current EPA acceptance criteria and if not, commit to conduct new studies. If a registrant believes that previously submitted data meet current testing standards, the study MRID numbers should be cited according to the instructions in the Requirement Status and Registrants Response Form provided for each product.

The Agency intends to issue a separate Product-Specific Data Call-In (PDCI), outlining specific data requirements at a later date. Products which include claims for residual sanitizing activity as well as residual claims against certain non-public health organisms, including mold, will be required to submit efficacy data to support these claims. If a product label includes a disinfection claim; the appropriate efficacy data must be submitted to support the claim. The efficacy studies the Agency intends to call-in are listed in Table 5 below.

Table 5. Efficacy Data Requirements for Reregistration

Claim	Use Pattern	Guideline Study Name	New OPPTS Guideline No.	Old Guideline No.
Disinfectant	Hard inanimate surfaces	AOAC Use Dilution Test (Hard water and organic soil) **or** AOAC Germicidal Spray Test **or** AOAC Hard Surface Carrier Test (Distilled water only)	810.2100 (c), (d), (e)	91-2 (b), (c), (d)
Residual Self-Sanitizing	Materials Preservative	Need to submit protocol for review		

2. Labeling for End-Use Products

No specific labeling changes are necessary to implement measures outlined in Section IV, above. However, to ensure compliance with FIFRA, end –use product labeling should be revised to comply with all current EPA regulations, PR Notices and applicable policies.

Description	Amended Labeling Language	Placement on Label
Declaration of amount of Methanol in product.	Contains ____ % Methanol[1].	Below the Ingredients Statement
Required for products containing Methanol ≥ 4%	Danger. Poison. Skull and Crossbones Symbol	Signal Word
Precautionary Statements (Language Required by RED based on acute toxicity)	Danger. Corrosive. Causes irreversible eye damage and skin burns. Methanol may cause blindness. May be fatal if inhaled. May be harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray mist. Wear a NIOSH approved respirator with any N, R, P, or HE filter. Appropriate measures must be taken to prevent the accumulation of hazardous concentrations of methanol vapors in the work area. Wear goggles or faceshield, rubber gloves, and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.	Precautionary Statements
Physical and Chemical Hazards	Combustible. Do not use or store near heat or open flame. Deactivation can be achieved by the addition of anionic surfactant (soap, sulfonates, sulfates) in quantity equivalent to that of product.	Physical and Chemical Hazards Statements
Products classified as corrosive	Probable mucosal damage may contraindicate the use of gastric lavage.	Note to Physician
Residual Self Sanitizing Claim	Delete Residual Self Sanitizing Activity claim against *Trichophyton mentagrophytes* in socks. Protocol and data is needed to support this type of claim.	Directions for Use
Nonpublic Health Claims	Effective against odor causing bacteria, bacteria which causes staining and discoloration, fungi (mold/mildew), and algae as a static agent. Can be used as a final bacteriastatic finish to impart bacteriastatic/fungistatic (mold/mildew activity)	Directions for Use
Application Method	Delete Fogging Application	Directions for Use

Description	Amended Labeling Language	Placement on Label
Use Surface Deletion	Delete Polyurethane and cellulose foam for household, industrial, and institutional sponges. This active ingredient is not cleared for use on food contact surfaces.	Directions for Use
Mold Remediation/Prevention (Water/Smoke restoration/ Sewer backup/river flood cleanup/clean water source)	Should any of the materials to be treated have prior mold or moisture contamination, add the appropriate remediation directions for use on the label as per the website below: Refer to http.//www.epa.gov/mold/mold_remediation Table 1 and 2 for Remediation Directions for Use	Directions for Use

VI. APPENDICES

Trimethoxysilyl Quats
Table of Use Patterns for Trimethosysilyl Quats (Appendix A)

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
Residential and Public Access areas				
Household and Domestic Dwellings, hard non porous surfaces	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 64881-6 70087-1 75497-4 75497-5 75497-8 4822-484 79652-1	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
	Soluble Concentrate 64881-3 75497-2 75497-3 82077-2 82077-3	Spray (pump or commercial), dip or soak	Add 2.5-128 ounces of product per gallon of water. Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry. Soak: Use enough of product to completely submerge item.	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
			Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	
Bathroom Premises, hard non porous surfaces	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 64881-6 70087-1 75497-4 75497-5 75497-8 4822-484 79652-1	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
	Soluble Concentrate 64881-3 75497-2 75497-3 82077-2 82077-3	Spray (pump or commercial), dip or soak	Add 2.5-128 ounces of product per gallon of water. Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry. Soak: Use enough of product to	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
			completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	
Human Bedding	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
Human Bedding	Ready to Use 64881-6 70087-1 75497-4 75497-5 79652-1	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
Human Footwear	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 70087-1	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
	75497-4 75497-5 79652-1		completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
		Dip or soak	Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	
Human Clothing/Apparel	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
Human Clothing/Apparel	Ready to Use 70087-1 75497-4 Ready to Use 75497-5 79652-1	Spray (pump or commercial), dip or soak	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry.	
		Dip or soak	Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
			temperature of up to 160 degrees (a clothes dryer).	
Upholstery	Soluble Concentrate 75174-2 75497-1		Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 64881-6 70087-1 75497-4 75497-5	Spray (pump or commercial), dip or soak	Spray entire surface area 4-6" from surface until completely covered. Let stand until dry.	
	Soluble Concentrate 64881-3	Spray (pump or commercial), dip or soak	Add 2.5 ounces of product per gallon of water. Spray entire surface area 4-6" from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry. Soak: Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
Diapers	Ready to Use 75497-4 75497-5	Spray (pump or commercial), dip or soak	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry.	
		Dip or soak	Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	
Carpets	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 64881-6 70087-1 75497-4 75497-5 79652-1	Spray (pump or commercial),	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry. One gallon treats 200 square feet.	
	Soluble Concentrate 64881-3 75497-2 75497-3 82077-2 82077-3	Spray (pump or commercial), dip or soak	Add 2.5 ounces of product per gallon of water. Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
Toweling	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 75497-4 75497-5	Spray (pump or commercial), dip or soak	Remove filter from unit. Spray entire surface area 4-6" from surface until completely covered. Let stand until dry.	
Garbage Cans	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 75497-4 75497-5 75497-8	Spray (pump or commercial)	Spray entire surface area 4-6" from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
Materials Preservative				
Adhesives	Soluble Concentrate 75174-2 75497-1 75497-2 75497-3 82077-2 82077-3	Open pour	Add 5 pounds of product per 100 pounds of adhesive.	
Paints (In Can)	Soluble Concentrate 75174-2	Open pour	Add 5 pounds of product per 100 pounds of paint	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
	75497-1 75497-2 75497-3 82077-2 82077-3			
Coatings	Soluble Concentrate 75174-2 75497-1 75497-2 75497-3 82077-2 82077-3	Open pour	Add 5 pounds of product per 100 pounds of coatings	
Textiles, sails, ropes, fire hose	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), Dip, soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 75497-4 75497-5	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry.	
	Ready to Use 75497-4 75497-5	Dip, soak	Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
Concrete Additive	Soluble Concentrate 75497-4 75497-5	Open pour	40 ounces per cubic foot of concrete Add water before adding to concrete.	
	Soluble Concentrate 75174-2 75497-1		6 ounces per 500 cubic feet. Add water before adding to concrete.	
	Soluble Concentrate 75497-2 75497-3 82077-2 82077-3		6-16 ounces per cubic yard. Add water before adding to concrete.	
	Soluble Concentrate 64881-3	Spray (pump or commercial), dip or soak	Add 2.5 ounces of product per gallon of water. Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
Roofing Materials (shingles, felt, synthetic overcoats)	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 70087-1 75497-4	Spray (pump or commercial)	Spray entire surface area 6-12” from surface until completely covered. Let	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
	75497-5		stand until dry.	
	Soluble Concentrate 64881-3	Spray (pump or commercial), dip or soak	Add 2.5 ounces of product per gallon of water. Spray entire surface area 4-6" from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
Air Filters (vacuum, A/C units, automobiles, aquariums)	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 70087-1 75497-4 75497-5 79652-1	Spray (pump or commercial), dip or soak	Remove filter from unit. Spray entire surface area 4-6" from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	
Air Filters (vacuum, A/C	Soluble	Spray (pump or	Add 2.5 ounces of product	

Use Site	Formulation	Method of Application	Application Rate/ No. of applications	Use Limitations
units, automobiles, aquariums)	Concentrate 64881-3	commercial), dip or soak	per gallon of water. Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry. Soak: Use enough of product to completely submerge item. Soak item for 3 minutes. Remove item and wring excess liquid. Dry treated articles before use at a temperature of up to 160 degrees (a clothes dryer).	
Polyurethane foam and cellulose products, cleaning buffers	Soluble Concentrate 75174-2 75497-1	Spray (pump or commercial), dip or soak	Add 8 ounces of product per gallon of water. Then apply as in ready to use.	
	Ready to Use 70087-1 75497-4 75497-5 79652-1	Spray (pump or commercial)	Spray entire surface area 4-6” from surface until completely covered. Let stand until dry or let stand 3 minutes and wipe dry.	

APPENDIX B: Trimethoxysilyl Quats (3148)

Appendix B lists the **generic** (not product specific) data requirements which support the re-registration of trimethoxysilyl Quats. These requirements apply to trimethoxysilyl Quats in all products, including data requirements for which a technical grade active ingredient is the test substance. The data table is organized in the following formats:

1. **Data Requirement** (Columns 1 and 2). The data requirements are listed by Guideline Number. The first column lists the new Part 158 Guideline numbers, and the second column lists the old Part 158 Guideline numbers. Each Guideline Number has an associated test protocol set forth in the Pesticide Assessment Guidance, which are available on the EPA website.

2. **Guideline Description** (Column 3). Identifies the guideline type.

3. **Use Pattern** (Column 4). This column indicates the standard Antimicrobial Division use patterns categories for which the generic (not product specific) data requirements apply. The number designations are used in Appendix B.

(1) Agricultural premises and equipment
(2) Food handling/ storage establishments premises and equipment
(3) Commercial, institutional and industrial premises and equipment
(4) Residential and public access premises
(5) Medical premises and equipment
(6) Human water systems
(7) Materials preservatives
(8) Industrial processes and water systems
(9) Antifouling coatings
(10) Wood preservatives
(11) Swimming pools
Aquatic areas

3. **Bibliographic Citation** (Column 5). If the Agency has data in its files to support a specific generic Guideline requirement, this column **(12)** will identity each study by a "Master Record Identification (MRID) number. The listed studies are considered "valid" and acceptable for satisfying the Guideline requirement. Refer to the Bibliography appendix for a complete citation of each study.

DATA REQUIREMENT				CITATION(S)
New Guideline Number	Old Guideline Number	Study Title	Use Pattern	MRID Number
TECHNICAL GRADE ACTIVE INGREDIENT (TGAI) CHEMISTRY				
830.1550	61-1	Product Identity and Composition		101490 105186 105988 128481 130316 164909 41438002 42456501 42456508
830.1600 830.1620 830.1650	61-2 A	Starting Materials and Manufacturing Process		101490 105186 105988 128481 130316 164909 42456502
830.1670	61-2 B	Formation of Impurities		101490 105186 105988 128481 130316 164909 42456502
830.1700	62-1	Preliminary Analysis		41959401 42456507 41959401
830.1750	62-2	Certification of Limits		105988 41959401

DATA REQUIREMENT				CITATION(S)
New Guideline Number	Old Guideline Number	Study Title	Use Pattern	MRID Number
830.1800	62-3	Analytical Method		105988 101490 128481 41959401 42456504 42456506 130316
830.6302	63-2	Color		105988 101490 128481 70190 129655 130316
830.6303	63-3	Physical State		105988 70190 129655 130316
830.6304	63-4	Odor		105988 101490 128481
830.7220	63-6	Boiling Point		105988 101490 128481 70191 129565 130316
830.7300	63-7	Density		105988 101490 128481 70191 123565 130316

DATA REQUIREMENT				CITATION(S)
New Guideline Number	Old Guideline Number	Study Title	Use Pattern	MRID Number
830.7840 830.7860	63-8	Solubility		43589401
830.7950	63-9	Vapor Pressure		105988 101490 42469601
830.7370	63-10	Dissociation in Water		41276601 42469601
830.7000	63-12	pH		105988 101490 128481 70191 130316
830.6313	63-13	Stability		41276601 70191 130316 42456509
830.6315	63-15	Flammability		105988 101490 128481
830.6317	63-17	Storage Stability		42456510
830.6318	63-18	Viscosity		105988 101490 128481
830.6320	63-20	Corrosion Characteristics		105988 101490 128481
830.6321	63-21	Dielectric Breakdown Voltage		
ECOLOGICAL EFFECTS				
850.2100	71-1 A	Avian Acute Oral Toxicity Test - Quail/duck		40385218

DATA REQUIREMENT				CITATION(S)
New Guideline Number	Old Guideline Number	Study Title	Use Pattern	MRID Number
850.2200	71-2 A	Avian Acute Dietary - Quail		101491
850.2200	71-2 B	Avian Acute Dietary – Duck		40385217
850.1075	72-1 A	Fish Acute Toxicity - Bluegill		
850.1075	72-1 D	Fish Acute Toxicity - Rainbow Trout		105187
850.1010	72-2 A	Acute Aquatic Invertebrate Toxicity		105187
870.1100	81-1	Acute Oral Toxicity		40385201 41948702
870.1200	81-2	Acute Dermal Toxicity		40385201 41948701 43219901
870.1300	81-3	Acute Inhalation Toxicity		126471 41157803 93218038
870.2400	81-4	Acute Eye Irritation		40385201
870.2500	81-5	Acute Dermal Irritation		40385201 41157801 41157802 41977901 42456513
870.2600	81-6	Skin Sensitization		86703 42197401
870.3250	82-3	90-Day Dermal		41339403
TOXICOLOGY				
870.3700	83-3 A	Prenatal Developmental Toxicity - Rat		41438003

DATA REQUIREMENT				CITATION(S)
New Guideline Number	Old Guideline Number	Study Title	Use Pattern	MRID Number
870.5100	84-2 A	Mutation		105185 128480 41353301
870.5380 870.5385 870.5395	84-2 B	Structural Chromosomal Aberration		42456517 41296802 40385213
870.6300	84-4	Other Genotoxic Effects		41296804
870.7485	85-1	General Metabolism		130319
870.7600	85-2	Dermal Penetration		40385216 57346
*For guidelines 82-3 and 82-4, at least one is required to be fulfilled; not both (for both food and non-food uses). **Only required for food use.				
ENVIRONMENTAL FATE				
835.2120	161-1	Hydrolysis		43578601
OCCUPATIONAL AND RESIDENTIAL EXPOSURE				
875.2400	133-3	Dermal Exposure		41412201
875.2500	133-4	Inhalation Exposure		41761201 41412201

Appendix C. Technical Support Documents

Additional documentation in support of this RED is maintained in the OPP docket, located in Room S-4400, One Potomac Yard, 2777 South Crystal Drive, Arlington, VA, and is open Monday through Friday, excluding Federal holidays, from 8:30 a.m. to 4:00 p.m.

All documents, in hard copy form, may be viewed in the OPP docket room or downloaded or viewed via the Internet at the following site:

http://www.regulations.gov (EPA-HQ-OPP-2007-0831).

These documents include:

3-(Trimethoxysilyl) propyl dimethyl octadecyl ammonium chloride (AEM 5700 Antimicrobial): Risk Characterization for non-food use, dated February 2, 2000.

Appendix D. Citations Considered to be Part of the Data Base Supporting the Reregistration Decision (Bibliography)

1. MRID Studies

28989 Isquith, A.J.; White, W.C.; Malek, J.R.; et al. (1976) Durability of Dow Corning^(R)I 5700 Antimicrobial Agent on Textiles. In- cludes method CTM 0824 dated Jan 29, 1976. (Unpublished study received Nov 7, 1979 under 34292-1; submitted by Dow Corning Corp., Midland, Mich.; CDL:241924-A)

28990 Schechtman, L.M.; Beard, S.F.; Sinsky, P.M. (1979) Activity of T1482 in~in vitro~Mammalian Cell: Transformation Assay in the Absence of Exogenous Metabolic Activation. Final Rept. (Unpub- lished study received Sep 19, 1979 under 34292-1; prepared by Microbiological Associates, submitted by Dow Corning Corp., Mid- land, Mich.; CDL:241925-A)

29136 Dow Corning Corporation (1977?) Dow Corning^(R)I5700 Antimicrobial Agent: Durability Study. (Unpublished study received Feb 27, 1980 under 34292-1; prepared in cooperation with Litton Bione- tics Laboratory Products; CDL:241856-A)

29137 Isquith, A.J.; White, W.C.; Malek, J.R.; et al. (1961?) Durability of Dow Corning^(R)I5700 Antimicrobial Agent on Textiles. (Un- published study received Feb 27, 1980 under 22780-1; submitted by Dow Corning Corp., Midland, Mich.; CDL:241856-B)

29138 Dow Corning Corporation (1952?) Acute Oral Toxicity. (Unpublished study received Feb 27, 1980 under 34292-1; CDL:241856-C)

29139 Groh, C.L. (1972) Acute Dermal Toxicity--Albino Rats. (Unpublished study received Feb 27, 1980 under 34292-1; submitted by Dow Corning Corp., Midland, Mich.; CDL:241856-D)

29140 Lukes, T.; Paa, H. (1973) Report to Dow Corning Corporation: 28-Day Subacute Dermal Toxicity Study with Treated Fabrics in Albino Rabbits: IBT No. 601-04030. (Unpublished study received Feb 27, 1980 under 34292-1; prepared by Industrial Bio-Test Laborato- ries, submitted by Dow Corning Corp., Midland, Mich.; CDL: 241856-E)

29141 Lukes, T.H.; Paa, H.; Kopplin, R.P. (1974) Addendum Report to Dow Corning Corporation: 28-Day Subacute Dermal Toxicity Study with Treated Fabrics in Albino Rabbits: IBT No. 601-04030. (Unpub- lished study received Feb 27, 1980 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, Mich.; CDL:241856-F)

31557 Mogul Corporation (1973) ?Study of Dow Corning^(R)I Q9-5700 Antimi- crobial Agent|. (Unpublished study received Mar 25, 1980 under 8591-EX-2; CDL:242184-A)

31558 Mogul Corporation (1978) Laboratory Study: Pilot Plant Study: Field Trials. (Unpublished study received Mar 25, 1980 under 8591-EX- 2; CDL:242184-B)

57346 Siddiqui, W.H.; Malek, J.R.; Shells, E. (1981) Percutaneous Absorp- tion of Dow Corning^(R)I 5700 Antimicrobial Agent in Rabbits. (Unpublished study received Jan 13, 1981 under 34292-1; submit- ted by Dow Corning Corp., Midland, Mich.; CDL:244089-A)

58099 Morgan, M.; Smith, S.H. (1977) Report to Dow Corning Corporation: Teratogenic Study with TX 1348 in Albino Rats: IBT No. 8533- 10126. (Unpublished study received May 6, 1977 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, Mich.; CDL:232330-A)

58118 Salamon, C.; Smith, S. (1977) Report to Dow Corning Corporation: Host-Mediated Assay for Detection of Mutations Induced by TX- 1347: IBT No. 8533-10127. (Unpublished study received May 9, 1977 under 34292-1; submitted by Dow Corning Corp., Midland, Mich.; CDL:232331-A)

59237 Burlington Industries, Incorporated (1974) ?Human Wear Tests with Dow Corning X9-5700 Treated Socks|. (Compilation; unpublished study received Apr 8, 1976 under 34292-1; submitted by Dow Corn- ing Corp., Midland, Mich.; CDL:227218-A)

67672 Oshita, G.; Richter, W.R. (1976) Report to Burlington Hosiery Company, Division of Burlington Industries: Three-week vaginal Irritation Study with Treated Panty Hose Fabric (Cotton and Nylon) in Beagle Dogs: IBT No. 8531-08440. (Unpublished study received Sep 18, 1978 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, Mich.; CDL:235110-A)

67983 Reno, F.E. (1979) Acute Oral LDI50^ in Bobwhite Quail: Triforine Technical: Addendum to Final Report: Project No. 920-102. (Un- published study received Jun 3, 1980 under 21137-6; prepared by Hazleton Laboratories America, Inc., submitted by EM Laborato- ries, Inc., Elmsford, N.Y.; CDL:242629-A)

70190 Dow Corning Corporation (1976) Information about Antimicrobial Agents. Midland, Mich.: Dow Corning. (New product informa- tion bulletin 19-015; also~In~unpublished submission received Jul 20, 1977 under 8591-EX-1; submitted by Mogul Corp., Chagrin Falls, Ohio; CDL:233331-A)

85296 Dow Corning Corporation (1952) ?Toxicity of Dow Corning^(R)I X-9- 5700 to Rats|. (Unpublished study received Sep 18, 1974 under 34292-1; CDL:140129-A)

86702 William G. Roessler (1981) Leaching of a New Chemical from Treated Fabrics. (Compilation; unpublished study received Oct 20, 1981 under 46620-1; CDL:246194-A)

86703 Shelanski, M.V. (1978) Evaluation of Potential Hazards by Dermal Conduct: PI-19-05-311. (Unpublished study received Oct 20, 1981 under 46620-1; prepared by Product Investigations, Inc., submit- ted by William G. Roessler, Frederick, Md.; CDL:246194-B)

86704 United States Testing Company, Incorporated (1977) Acute Dermal Toxicity, Rabbit: No. 02266-3. (Unpublished study received Oct 20, 1981 under 46620-1; submitted by William G. Roessler, Fred- erick, Md.; CDL:246194-C)

86705 United States Testing Company, Incorporated (1977) Skin Sensitiza- tion Test, Guinea Pig Assay: No. 02266-2. (Unpublished study received Oct 20, 1981 under 46620-1; submitted by William G. Roessler, Frederick, Md.; CDL:246194-D)

86706 United States Testing Company, Incorporated (1977) Acute Oral Tox- icity, Single Dose LD50: No. 0226-1. (Unpublished study re- ceived Oct 20, 1981 under 46620-1; submitted by William G. Roes- sler, Frederick, Md.; CDL:246194-E)

101490 William G. Roessler (1981) ?Chemical and Physical Properties of Trimethoxysilylpropyldidecylmethylammonium Chloride (TPDMC)|. (Compilation; unpublished study received Dec 17, 1981 under 46620-1; CDL:247268-A)

101491 Fink, R.; Beavers, J.B.; Joiner, G.; et al. (1982) Final Report: Eight-day Dietary LCI50^--Bobwhite Quail: Requat Antimicrobial 1977 Liquid: Project No. 180-101. (Unpublished study received Mar 26, 1982 under 46620-1; prepared by Wildlife International Ltd., submitted by William G. Roessler, Frederick, Md.; CDL: 247269-A)

104765 Myers, T.W. (1975) Report to Dow Corning Corporation: Acute Vapor Inhalation Toxicity Study with Dow Corning^(R)I X 9-5700 (Dow Corning Q 9-5700) in Albino Rats: IBT No. 663-06493. (Unpub- lished study received Mar 7, 1975 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, Mich.; CDL:140138-A)

105185 Lavelle, G.; Entrup, M. (1982) The Salmonella / Microsomal Assay for Bacterial Mutagenic Activity of Requat Antimicrobial 1977 Liquid with 50% Methanol: Project N. 82-0671-21. (Unpublished study received Jun 17, 1982 under 46620-1; prepared by Hill Top Research, Inc., submitted by William G. Roessler, Frederick, MD; CDL:247708-A)

105186 Cantor, L. (1982) Formal Report of Analysis for N-Nitroso Com- pounds: Report No. 5450-3611. (Unpublished study received Jun 17, 1982 under 46620-1; prepared by Thermo Electron Corp., submitted by William G. Roessler, Frederick, MD; CDL:247709-A)

105187 Grim, J. (1982) Acute, Static LC50 Bioassays: Daphnia magna--48 Hour; Rainbow Trout--96 Hour; Material: PSX-018 Sanitized, Inc. (Unpublished study received Jun 17, 1982 under 46620-1; prepared by Northeastern Biologists, Inc., submitted by William G. Roessler, Frederick, MD; CDL:247710-A)

105988 William G. Roessler (1982) ?Chemical Study of PSX018|. (Compila- tion; unpublished study received Jun 30, 1982 under 46620-1; CDL:247783-A)

109274 William G. Roessler (1982) ?Leaching Study of Cotton and Nylon Fab- rics Treated with Dow Corning 5700 and Requat 1977 after Extrac- tion with Distilled Water and Synthetic Sweat|. (Compilation; unpublished study received Jul 23, 1982 under 46620-1; CDL: 247899-A)

110418 Isquith, A.; Malek, J.; McGee, J.; et al. (1961) Durability of Dow Corning 5700 Antimicrobial Agent on Textiles. (Unpublished study received Aug 12, 1982 under 34292-1; submitted by Dow Corning Corp., Midland, MI; CDL:248113-A)

126470 Roessler, W.; Kofmel, U.; Mebes, B. (1982) Leaching Experiment of Requat 1977 Treated Samples--Analyses of Leachate Solutions. (Unpublished study received Jan 12, 1983 under 46620-1; prepared by Sanitized Laboratory, Switz., submitted by William G. Roes- sler, Frederick, MD; CDL:249725-A)

126471 Rothstein, E. (1982) ?Toxicity: Requat Antimicrobial 1977 Liquid|. (Unpublished study received Jan 12, 1983 under 46620-1; prepared by Leberco Laboratories, submitted by William G. Roessler, Frderick, MD; CDL:249726-A)

128480 Conine, D. (1982) Supplemental Information for the Evaluation of Requat Antimicrobial 1977 Liquid with 50% Methanol in the Salmo- nella/microsomal Mutagenicity Assay: Ref. 82-0671-21. Unpub- lished study; 2 p.

128481 William G. Roessler (1982) ?Chemistry of Requat 1977|. (Compila- tion; unpublished study received Apr 21, 1983 under 46620-1; CDL:250167-A)

128546 DeVries, C.; Siddiqui, W. (1983) Acute Oral Toxicity Study with Dow Corning X9-6346 (Dow Corning 5772 Antimicrobial Agent). (Unpublished study received May 23, 1983 under 34292-2; sub- mitted by Dow Corning Corp., Midland, MI; CDL:250353-A)

128547 DeVries, C.; Siddiqui, W. (1983) Acute Dermal Toxicity Study of Dow Corning X9-6346 (Dow Corning 5772 Antimicrobial Agent). (Unpublished study received May 23, 1983 under 34292-2; sub- mitted by Dow Corning Corp., Midland, MI; CDL:250353-B)

128548 DeVries, C.; Siddiqui, W. (1983) An Acute Eye Irritation Study of Dow Corning X9-6346 (Dow Corning 5772 Antimicrobial Agent). (Unpublished study received May 23, 1983 under 34292-2; sub- mitted by Dow Corning Corp., Midland, MI; CDL:250353-C)

128549 DeVries, C.; Siddiqui, W. (1983) Acute Dermal Irritation Study of Dow Corning X9-6346 (Dow Corning 5772 Antimicrobial Agent). (Unpublished study received May 23, 1983 under 34292-2; submit- ted by Dow Corning Corp., Midland, MI; CDL:250353-D)

129564 Stauffer Chemical Co. (1983) A Two-year Dietary Study with R-29148 (2,2,5-Trimethyl-3-dichloroacetyl-1,3-oxazolidine) in Rats, 24 Month Interim Report. (Compilation; unpublished study received Jun 15, 1983 under 8F2115; CDL:071763-A)

129565 Dow Corning Corp. (1978) ?Efficacy of Q9-5700 Antimicrobial Agent|. (Compilation; unpublished study received Sep 7, 1978 under 34292-1; CDL:241926-A)

130316 Dow Corning Corp. (1976) ?Chemistry of Dow Corning Q9-5700|. (Com- pilation; unpublished study received Aug 25, 1980 under 34292-1; CDL:243105-A)

130317 Dow Corning Corp. (1976) ?Efficacy of Dow Corning Q9-5700|. (Com- pilation; unpublished study received Aug 25, 1980 under 34292-1; CDL:243105-B)

130318 Hobbs, E.; Saunders, F.; Isquith, A.; et al. (1972) Acute Toxico- logic Properties and Industrial Handling Hazards of Dow Corning Q9-5700 Fluid, a Potential Antimicrobial Agent: File No. 1853- 1. (Unpublished study received Aug 25, 1972 under 34292-1; sub- mitted by Dow Corning Corp., Midland, MI; CDL:243105-C)

130319 Hobbs, E. (1973) Acute Toxicologic Properties of Dow Corning Q9- 5700. (Unpublished study received Aug 25, 1980 under 34292-1; submitted by Dow Corning Corp., Midland, MI; CDL:243105-D)

130320 Groh, C.; Saunders, F. (1972) Eye and Skin Irritation Potential of Diluted Dow Corning Q9-5700, a Potential Biocide: File

No. 1853- 2. (Unpublished study received Aug 25, 1980 under 34292-1; sub- mitted by Dow Corning Corp., Midland, MI; CDL:243105-E)

130321 Rausina, G. (1972) Report to ...: Four-day Static Fish Toxicity Studies with TX-793 in Rainbow Trout and Bluegills: IBT No. A1904. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-F)

130322 May, R. (1972) Report to ...: Human Repeated Insult Patch Test with TX-793: IBT No. F1905. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-G)

130323 Myers, T. (1975) Report to ...: Acute Vapor Inhalation Toxicity Study with Dow Corning Q9-5700 in Albino Rats: IBT No. 663- 06493. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-I)

130324 Oshita, G. (1976) Report to Burlington Hosiery Company, Division of Burlington Industries: Three-week Vaginal Irritation Study with Treated Panty Hose Fabric (Cotton and Nylon) in Beagle Dogs: IBT NO. 8531-08440. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Industrial Bio-Test Laboratories, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-K)

130325 Carpenter, J.; Walters, P. (1974) 32-Day Human Wear Test with Dow Corning Q9-5700 Treated Socks. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Burlington Industries, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-L)

130326 Carpenter, J.; Walters, P. (1974) Three-month Human Wear Test with Dow Corning Q9-5700 Treated Athletic Socks. (Unpublished study received Aug 25, 1980 under 34292-1; prepared by Burlington Industries, Inc., submitted by Dow Corning Corp., Midland, MI; CDL:243105-M)

164909 Dow Chemical U.S.A. (1977) Physical and Chemical Properties [of Dow Corning X9-5700]. Unpublished compilation. 34 p.

164910 Dow Corning Corp. (19??) [Efficacy Data for Dow Corning X-9-5700]. Unpublished study. 5 p.

164911 Hobbs, E. (1972) Acute Toxicologic Properties and Industrial Handl- ing Hazards of Dow Corning X-9-5700 Fluid, A Potential Anti- microbial Agent. Unpublished study prepared by Dow Corning Corp. 5 p.

164912 Hobbs, E. (1973) Acute Toxicologic Properties of Dow Corning X-9- 5700: TX-793; Series No. I-0005-0129. Unpublished study pre- pared by Dow Corning Corp. 21 p.

164913 Dow Corning Corp. (1973) Biological and Chemical Methods [Efficacy Data]. Unpublished compilation. 94 p.

40385200 Dow Corning Corp. (1987) Submission of Data in Response to Data Call-In Notice for Q9-5700 Antimicrobial Agent: Toxicology Data. Transmittal of 19 studies.

40385201 Hobbs, E. (1973) Acute Toxicologic Properties of Dow Corning Q9-5700: Laboratory Project ID: AD-0003. Unpublished compila- tion prepared by Dow Corning Corp. 23 p.

40385202 Rausinn, G. (1972) Four-day Static Fish Toxicity Studies with Dow Corning Q9-5700 in Rainbow Trout and Bluegills: Laboratory Proj- ect ID: A-1904. Unpublished study prepared by Industrial Bio-Test Laboratories, Inc. 25 p.

40385204 Lukes, T.; Paa, H. (1973) Report to ... 28-Day Subacute Dermal Tox- icity Study with Treated Fabrics in Albino Rabbits: IBT No. 601-04030. Unpublished study prepared by Industrial Bio-Test Laboratories, Inc. 37 p.

40385211 Isquith, A. (1978) Mutagenicity Evaluation of Dow Corning 5700 Antimicrobial Agent: Laboratory Project ID: 1853-13. Unpublish- ed study prepared by Dow Corning Corp. 13 p.

40385213 Schechtman, L.; Beard, S.; Sinsky, P. (1979) Activity of T1483 in in vitro Mammalian Cell Transformation Assay in the Presence of Exogenous Metabolic Activation: Final Report: Laboratory Project ID: T1483. Unpublished study prepared by Micrbiological Assoc- iates. 28 p.

40385214 Isquith, A. (1980) Durability of Dow Corning 5700 Antimicrobial Agent on Textile: Laboratory Project ID: 1853. Unpublished stu- dy prepared by Dow Corning Corp. 23 p.

40385215 Annelin, R. (1978) Acute Toxicity of Dow Corning 5700 Antimicrobial Agent to Daphnia magna in a Static System: Laboratory Project ID: TX1682. Unpublished study prepared by Dow Corning Corp. p.

40385216 Siddiqui, W. (1981) Percutaneous Absorption of Dow Corning 5700 Antimicrobial Agent in Rabbits: Laboratory Project ID: TX1966. Unpublished study prepared by Dow Corning Corp. 29 p.

40385217 Beavers, J. (1981) Eight-Day Dietary LC50--Mallard Duck: Dow Cor- ning 5700 Antimicrobial Agent: Final Report: Laboratory Project ID: TX81-9411-03. Unpublished study prepared by Wildlife Inter- national Ltd. 17 p.

40385218 Beavers, J. (1981) Acute Oral LD50--Mallard Duck: Dow Corning 5700 Antimicrobial Agent: Final Report: Laboratory

Project ID: TX81-9411-03. Unpublished study prepared by Wildlife Interna- tional Ltd. 17 p.

40385219 Hess, C.; White, W.; Weaver, M. (1987) Determination of Respirable Particle Size During Spray Application of Sylgard Antimicrobial Treatment: Laboratory Project ID: CH010. Unpublished study pre- pared by Dow Corning Corp. 13 p.

40517300 Dow Corning Corporation (1988) Submission of Efficacy Data on Dow Corning 5700 Antimicrobial Agent (EPA Reg. No. 34292-1) in Response to EPA Letter for Amendment dated 09/10/84. Transmittal of 1 study.

40517301 Gettings, R. (1987) Efficacy Data on Trichophyto mentagrophytes (Athlete's Foot Fungus): Dow Corning 5700 Antimicrobial Agent: Laboratory Project ID 9010. Unpublished study prepared by Dow Corning Corporation. 8 p.

41157800 Dow Corning Corp. (1989) Submission of Toxicity and Risk Assesment Data in Support of Q9-5700 Fluid and 5772 Compound. Transmittal of 3 studies.

41157801 Hobbs, E. (1972) Acute Toxicoloic Properties and Industrial Hand- ling Hazards of Dow Corning X-9-5700 Fluid, A Potential Micro- Bial Agent: File No. 1853-1. Unpublished study prepared by Dow Corning Corp. 6 p.

41157802 Groh, C. (1972) Eye and Skin Irritation Potential of Diluted Dow Corning X-9-5700, A Potential Biocide: File No. 1853-2. Unpub- lished study prepared by Dow Corning Corp. 4 p.

41157803 Kolesar, G.; Siddiqui, W.; Staton, E. (1985) An Acute Aerosol Inha- lation Toxicity Study with Dow Corning 5772 Compound in Rats: Report No. 1312. Unpublished study prepared by Dow Corning Corp. 35 p.

41276600 Sanitized Inc. (1989) Submission of Stability Data in Support of Registration Standard of Requat Antimicrobial 1977 Liquid. Transmittal of 1 study.

41276601 Williams, D. (1989) N,N-didecyl-N-methyl-3-(trimethoxysilyl) Propanaminium Chloride: 1 Year Storage Stability: Lab Project Number: PSX/018. Unpublished study prepared by Huls America Inc. 6 p.

41296800 Dow Corning Co. (1989) Submission of studies in support of regis- tration of Dow Corning 5700 Antimicrobial Treatment: Mutagen- icity tests. Transmittal of 4 studies.

41296801 Young, R. (1989) Mutagenicity Test on DC 5700 Hydrolysate in the L5178Y TK+/- Mouse Lymphoma Forward Mutation Assay: Final Report: HLA Study No. 10864-0-431; 20989; 431. Unpublished study prepared by Hazleton Laboratories America, Inc. 36 p.

41296802 Ivett, J. (1989) Single Acute Exposure Dose Selection Study on DC 5700 Hydrolysate, Reference # E6653-8: Final Report: HLA Study No. 10864-0-459-PO; 10864-0-459; 20996. Unpublished study prepared by Hazleton Laboratories America, Inc. 13 p.

41296803 Ivett, J. (1989) Mutagenicity Test on DC 5700 Hydrolysate Ref. #E6653-8 In vivo Mouse Micronucleus Assay: Final Report: HLA Study No. 10864-0-455; 20996; 455. Unpublished study prepared by Hazleton Laboratories America, Inc. 26 p.

41296804 Cifone, M. (1989) Mutagenicity Test on Dow Corning 5700 Hydrolysate in the Rat Primary Hepatocyte Unscheduled DNA Synthesis Assay: Final Report: HLA Study No. 10864-0-447; 20991; 447. Unpublished study prepared by Hazleton Laboratories America, Inc. 28 p.

41339400 Dow Corning Corp. (1989) Submission of data in support of registra- tion of Dow Corning 5700 Hydrolysate and Q9-5700 Hydrolysate: Toxicity data. Transmittal of 3 studies.

41339401 York, R. (1989) Range-finding Developmental Toxicity Study in Rats: Dow Corning 5700 Hydrolysate: Lab Project ID No. 416-067. Unpublished study prepared by International Research and Devel- opment Corp. 29 p.

41339402 King, D.; Dwane, M.; Siddiqui, W. (1989) A 14-Day Rangefinding Dermal Toxicity Study with Dow Corning Q9-5700 Hydrolysate in Rats: File No. 3933-18; Ref. No. TX-89-0200-05; Series No. I-0005-2597. Unpublished study prepared by Dow Corning Corp., Toxicology Dept. 15 p.

41339403 Dwane, M.; King, D.; Siddiqui, W.; et al. (1989) A 90-day Subchronic Dermal Toxicity Study of Dow Corning 5700 Hydrolysate in Rats: File No. 3933-19; Ref No. 89-0200-05; Series No. I-5000-2610. Unpublished study prepared by Dow Corning Corp. 87 p.

41353300 Dow Corning Corp. (1989) Submission of Supplemental Toxicity Data in Support of Dow Corning (R) 5700 Antimicrobial Treatment. Transmittal of 2 studies.

41353301 Young, R. (1989) Mutagenicity Test on DC 5700 Hydrolysate in the L5178Y TK+/- Mouse Lymphoma Forward Mutation Assay: Confirmation Study: Lab Project Number: 10864/0/431: 20989. Unpublished stu- dy prepared by Hazleton Laboratories America, Inc. 32 p.

41353302 Young, R. (1990) Supplemental Studies to the Mutagenicity Test on DC 5700 Hydrolysate in the L5178Y TK+/- Mouse Lymphoma Forward Mutation Assay: Lab Project Number: 10864/0/431/SUP: 20989. Un- published study prepared by Hazleton Laboratories America, Inc. 29 p.

41391100 Dow Corning Corp. (1990) Submission of Efficacy Data in Support of Amendment Application for Use of Dow Corning 5700 Antimicro- bial in Sock Fabric for Control of Athlete Foot Fungus. Trans- mittal of 1 study.

41391101 Gettings, R. (1987) Efficacy Data on Trichophyton mentagrophytes (Athlete's Foot Fungus): Dow Corning 5700 Antimicrobial Agent 3- (Trimethoxysilyl)propyldimethyl-octadecyl Ammonium Chloride ...: Lab Project Number: 9010. Unpublished study prepared by Dow Corning Corp. 8 p.

41412200 Chemical Manufacturers Association Biocides Panel Antimicrobial Exposure Task Force (1990) Submission of Antimicrobial Exposure Assessment Data in Support of Data Call-in Notice. Transmittal of 1 study.

41412201 Popendorf, W.; Selim, M.; Kross, B. (1990) Chemical Manufacturers Association Antimicrobial Exposure Assessment Study: Lab Project ID: Q626. Unpublished study prepared by Univ. of Iowa, Insti- tute of Agricultural Medicine and Occupational Health. 209 p. Has different statistics when compared to 41742601 and 41761201.

41438000 Dow Corning Corp. (1990) Submission of Data in Response to Anti- microbial Data Call-In Phase II Reregistration for Dow Corning 5700 Antimicrobial Treatment: Developmental Toxicity Stuides. Transmittal of 3 studies.

41438001 Popendorf, W. (1990) Chemical Manufacturers Association Antimicro- bial Exposure Assessment Study: Lab Project Number: Q626. Un- published study prepared by The University of Iowa, Institute of Agricultural Medicine and Occupational Health. 209 p. Statistics vary from those in 41742601 & 41761201.

41438002 York, R. (1989) Range-finding Developmental Toxicity Study in Rats: Dow Corning 5700 Hydrolysate: Lab Project Number: 416- 067. Unpublished study prepared by International Research and Development. 29 p.

41438003 York, R. (1989) Developmental Toxicity Study in Rats: Dow Corning 5700 Hydrolysate: Lab Project Number: 416-068. Unpublished study prepared by International Research and Development Corp. 101 p.

41742600 Chemical Manufacturers Association (1991) Submission of Replacement Antimicrobial Exposure Assessment Study to Support Registration of DCI. Transmittal of 1 study.

41742601 Popendorf, W.; Selim, M.; Kross, B. (1990) Chemical Manufacturers Association Antimicrobial Exposure Assessment: Lab Project Number: Q626. Unpublished study prepared by The Univ. of Iowa. 209 p.

41761200 Chemical Manufacturers Association (1991) Submission of Replacement Antimicrobial Exposure Data in support of Antimicrobial Pesti- cide Active Ingredient Data Call-in Notice. Transmittal of 1 study.

41948700 Sanitized Inc. (1991) Submission of Data To Support Reregistration Phase 3 for Requat Antimicrobial 1977 Liquid: Toxicology Data. Transmittal of 2 studies.

41948701 Barbera, J. (1991) Acute Dermal Toxicity of (...): Requat Anti- microbial 1977 Liquid: Lab Project Number: 911322. Unpublished study prepared by Leberco Testing, Inc. 13 p.

41948702 Barbera, J. (1991) Acute Oral Toxicity Testing of (...): Requat Antimicrobial 1977 Liquid: Lab Project Number: 911321. Unpub- lished study prepared by Leberco Testing, Inc. 14 p.

41959400 Sanitized Inc. (1991) Submission of product chemistry data in supp- ort of registration of Requat. Transmittal of 1 study.

41959401 Steinmetz, J. (1991) Manufacturing Use Product Chemistry Data: Req- uat (Trimethoxysilyl-propyldidecylmethylammoniumchloride). Un- published study prepared by Huls America, Inc. 16 p.

41977900 Sanitized Inc. (1991) Submission of toxicity data in support of reregistration of Requat Antimicrobial 1977 Liquid. Transmittal of 1 study.

41977901 Barbera, J. (1991) Primary Dermal Irritation: Requat Antimicrobial 1977 Liquid: Lab Project Number: 91812. Unpublished study prep- ared by Leberco Testing Inc. 10 p.

42197400 Dow Corning Corporation (1992) Submission of toxicology data in support of registration of Dow Corning 5700. Transmittal of 1 study.

42197401 Hoffman, R. (1992) A Skin Sensitization Study of Dow Corning 5700 Hydrolysate in Guinea Pigs: Lab Project Number: 1992-I0000-36929. Unpublished study prepared by Dow Corning Corporation. 23 p.

42203200 Sanitized Inc. (1992) Submission of product chemistry data in supp- ort of a change in percent of active ingredient due to more sophisticated technique used for analysis for Requat Antimicro- bial 1977 Liquid. Transmittal of 1 study.

42203201 Steinmetz, J. (1991) Manufacturing Use Product Chemistry Data: Requat. Unpublished study prepared by Huls America, Inc. 16 p.

42204200 Dow Corning Corporation (1992) Submission of preliminary results of an in vivo test on an impurity present in Dow Corning's Antimi- crobials pursuant to FIFRA Section 6(a)(2). Transmittal of 1 study.

42204201 Stark, F. (1992) Letter Sent to Document Processing Desk, OPP, EPA, February 13, 1992: ?Preliminary results from a 28-day vapor inhalation toxicity study on a chemical substance that is present as an impurity in Dow Corning's antimicrobial pro- ducts|. Prepared by Dow Corning Corp. 4 p.

42334100 Dow Corning Corp. (1992) Submission of FIFRA 6(a)(2) Data To Support Supplementary Information to MRID #42204201: Toxicology study. Transmittal of 1 study.

42334101 Stark, F. (1992) Letter Sent to Office of Pesticide Programs dated May 15, 1992: ?Regarding chemical substance that is present as impurity in 34292-1,-2,-3,-5,-6|. Prepared by Dow Corning Corp. 3 p.

42456500 Dow Corning Corp. (1992) Submittal of product chemistry and mutagenicity data in support of Dow Corning 5700 Hydrolysate reregistration data call-in. Transmittal of 19 studies.

42456501 Abbott, E. (1992) Phase 3 Submission of Dow Corning 5772 Antimicrobial Agent Registration Correspondance. Unpublished study prepared by Dow Corning Corp. 28 p.

42456502 Abbott, E. (1992) Phase 3 Submission of Dow Corning 5772 Antimicrobial Agent Registration Correspondance. Unpublished study prepared by Dow Corning Corp. 8 p.

42456503 Malek, J. (1990) Phase 3 Submission of Supplimental Materials: Corporate Test Method 0230, 0680A, and 0680B: Dow Corning 5700 Hyrolysate. Unpublished study prepared by Dow Corning Corp. 22 p.

42456504 White, W. (1990) Phase 3 New Submission; Analysis for N,N-Dimethylnitrosamine in Dow Corning Q9-5700 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 11 p.

42456505 White, W. (1990) Phase 3 New Submission; Nitrosamine Analysis: Dow Corning 5700 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 12 p.

42456506 Malek, J. (1990) Phase 3 New Submission: Chemical Review of Dow Corning 5700 Antimicrobial Agent Impurities. Unpublished study prepared by Dow Corning Corp. 8 p.

42456507 Malek, J.; Robinson, R. (1978) Phase 3 New Submission Supplimental Materials: Batch Analysis Report for Dow Corning 5700 Antimicrobial Agent and Dow Corning 5772 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 19 p.

42456508 Abbott, E. (1992) Phase 3 New Submission of ?Revision of| MRID 00071090 Product Bulletin: Information About Antimicrobial Agents Dow Corning Q9-5700 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 15 p.

42456509 Malek, J. (1977) Phase 3 New Submission of Supplimental Data: Shelf Stability of Dow Corning 5700 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 8 p.

42456510 Gardner, J. (1984) Phase 3 New Submission of Supplimental Data: Storage Stability Data for Dow Corning 5700 Antimicrobial Agent. Unpublished study prepared by Dow Corning Corp. 12 p.

42456511 Devries. C.; Siddiqui, W. (1983) Phase 3 New Submission: Acute Oral Toxicity of Dow Corning 5700 Antimicrobial Agent: Project X9-6346. Unpublished study prepared by Dow Corning Corp. 9 p.

42456512 King, D.; Dwane, M.; Siddiqui, W. (1989) Phase 3 New Submission of ?Revision of| MRID 41339402: A 14-Day Rangefinding Dermal Toxicity Study with Dow Corning Q9-5700 Hydrolysate in Rats. Unpublished study prepared by Dow Corning Corp. 5 p.

42456513 Devries, C.; Siddiqui, W. (1983) Phase 3 New Submission: Acute Dermal Irritation Study of Dow Corning 5700 Antimicrobial Agent: Lab Project Number: X9-6346. Unpublished study prepared by Dow Corning Corp. 10 p.

42456514 York, R. (1989) Range-Finding Developmental Toxicity Study in Rats ?Revision of MRID 41438002|: Dow Corning 5700 Hydrolysate: Lab Project Number: 416-067. Unpublished study prepared by International Research and Development Corp. 29 p.

42456515 York, R. (1989) Developmental Toxicity Study in Rats ?Revision of MRID 41438003|: Dow Corning 5700 Hydrolysate: Lab Project Number: 416-068. Unpublished study prepared by International Research and Development Corp. 101 p.

42456516 Isquith, A. (1987) Phase 3 New Submission: Mutagenicity Test on Dow Corning 5700 Antimicrobial Agent in the Bacterial Reverse Mutation Assay. Unpublished study prepared by Dow Corning Corp. 31 p.

42456517 Ivett, J. (1989) Mutagenicity Test on DC 5700 Hydrolysate Ref. #E6653-8 in vivo Mouse Micronucleus Assay: (Revision of MRID 41296803): HLA Study Number 10864-0-455. Unpublished study prepared by Hazleton Laboratories America, Inc. 26 p.

42456518 Young, R. (1989) Mutagenicity Test on DC 5700 Hydrolysate in the L5178Y TK+/-Mouse Lymphoma Forward Mutation Assay: ?Revision of MRID 41296801|: Lab Project Number: 10864-0-431. Unpublished study prepared by Hazleton

Laboratories America, Inc. 36 p.

42456519 Isquith, A. (1987) Phase 3 New Submission: Mutagenicity Test on Dow Corning 5700 Antimicrobial Agent in the Bacterial Reverse Mutation Assay. Unpublished study prepared by Dow Corning Corp. 31 p.

42496900 Dow Corning Corp. (1990) Submittal of Revised Product Chemistry Data for Dow Corning 5700 Hydrolysate Data Call-in: Phase 3 Response. Transmittal of 1 study.

42496901 White, C. (1990) Phase 3 ?Revision of| Summary of MRID 00070190 and Related MRID 00130316 and Supplemental Data: ?Dow Corning 5700 Hydrolysate|: Physical and Chemical Characteristics. Unpublished study prepared by Dow Corning Corp. 73 p.

42511800 Dow Corning Corp. (1992) Submission of supplemental toxicity data under FIFRA 6(a)2 to support DC 1-2366 registration. Transmittal of 1 study.

42511801 Bey, A. (1992) Letter Sent to OPP, USEPA dated Sept. 23, 1992: Dow Corning 1-2366 Silane: Supplemental Toxicity Data, including Confidential Attachment. 110 p.

42587500 Chemical Manufacturers Association (1992) Submission of second replacement antimicrobial exposure data in support of registra- tion for antimicrobial pesticide active ingredients data call-in notice. Transmittal of 1 study.

42587501 Popendorf, W.; Selim, M.; Kross, B. (1992) Chemical Manufacturers Association Antimicrobial Exposure Assessment Study: Second Replacement to MRID 41761201: Lab Project Number: Q626. Unpublished study prepared by The University of Iowa. 316 p.

43219900 Dow Corning Corp. (1994) Submittal of Acute Dermal Toxicity Data in Support of Reregistration of DOW CORNING X9-6346 (DOW CORNING 5772 Antimicrobial Agent). Transmittal of 1 study.

43219901 DeVries, C.; Siddiqui, W. (1983) Acute Dermal Toxicity Study of DOW CORNING X9-6346 (DOW CORNING 5772 Antimicrobial Agent): Lab Project Number: 4211-3. Unpublished study prepared by DOW CORNING CORP. 10 p.

43578600 Dow Corning Corp. (1995) Submission of Environmental Fate Data in Support of Trimethoxysilyl Quats Reregistration. Transmittal of 1 Study.

43578601 Gorman, M. (1995) Hydrolysis of DC-5772 as a Function of pH: Final Report: Lab Project Number: 42160: 8253. Unpublished study prepared by ABC Labs, Inc. 164 p.

43589400 Dow Corning Corp. (1994) Submission of Product Chemistry Data in Support of the Reregistration of Trimethyoxysilyl quats. Transmittal of 1 Study.

43589401 Angelotti, N. (1994) Solubility of Q9-6346 Silane: (Same as Dow Corning 5772 Antimicrobial Agent): Lab Project Number: LIMS 9402992. Unpublished study prepared by Dow Corning Corp. 5 p.

43811200 Dow Corning Corp. (1995) Submission of Environmental Fate Data in Support of the Reregistration of Trimethoxysilyl Quats. Transmittal of 1 Study.

43811201 Gorman, M. (1995) Hydrolysis of DC-5772 as a Function of pH: Amended Final Report: Lab Project Number: 42160: 8253. Unpublished study prepared by ABC Labs, Inc. 202 p.

44129300 Coating Systems (1996) Submission of Product Chemistry Data in Support of the Application for Registration of Zoonocide. Transmittal of 1 Study.

44129301 Wright, T. (1996) Product Chemistry Information: Zoonocide. Unpublished study prepared by Wright Corp. and Coating Systems. 10 p.

44186000 S.C. Johnson & Son, Inc. (1996) Submission of Product Chemistry, Toxicity, and Efficacy Data in Support of the Application for Registration of BD 1. Transmittal of 17 Studies.

44186001 Gueldenzopf, T. (1996) Product Chemistry Data for Bathroom Duck, Formula Numbers 7217H121, 7217H120, and 7217H140: Lab Project Number: ARTM-W-105627A. Unpublished study prepared by S.C. Johnson and Son, Inc. 91 p.

44186002 Siepler, R. (1994) Physical and Chemical Characteristics of Bathroom Duck, Formula Number 7217H121: Lab Project Number: 201: 7217H121-A1: 8308. Unpublished study prepared by S.C. Johnson and Son, Inc. 14 p.

44186003 Weiss, C. (1994) Amendment to Twelve Month Room Temperature Storage-Stability Study for Bathroom Duck Formula Number 7217H121: Lab Project Number: 201: 7217H121-A12. Unpublished study prepared by S.C. Johnson and Son, Inc. 21 p.

44186004 Glaza, S. (1993) Acute Oral Toxicity Study of Raid BD493/n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride/n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride/3-(Trimethoxysilyl) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H121) in Rats: Final Report: Lab Project Number: HWI 21103437. Unpublished study prepared by Hazleton Wisconsin, Inc. 29 p. \

44186005 Glaza, S. (1993) Acute Dermal Toxicity Study of Raid BD493/n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride/n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride/3-(Trimethoxysilyl) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H121) in Rabbits: Final Report: Lab Project Number: HWI 21103438. Unpublished study prepared by Hazleton Wisconsin, Inc. 39 p.

44186006 Glaza, S. (1993) Primary Eye Irritation Study of Raid BD493/n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride/n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride/3-(Trimethoxysilyl) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H121) in Rabbits: Final Report: Lab Project Number: HWI 21103440. Unpublished study prepared by Hazleton Wisconsin, Inc. 36 p.

44186007 Glaza, S. (1993) Primary Dermal Irritation Study of Raid BD493/n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride/n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride/3-(Trimethoxysilyl) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H121) in Rabbits: Final Report: Lab Project Number: HWI 21103439. Unpublished study prepared by Hazleton Wisconsin, Inc. 25 p.

44186008 Glaza, S. (1993) Dermal Sensitization Study of Raid BD493/n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride/n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride/3-(Trimethoxysilyl) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H120) in Guinea Pigs--Closed Patch Technique: Final Report: Lab Project Number: HWI 21103442. Unpublished study prepared by Hazleton Wisconsin, Inc. 36 p.

44186009 Falbo, D. (1996) Efficacy Testing of Disinfectant Bathroom Duck--No Fragrance: Amended Report: Lab Project Number: 8308: 106750: 201. Unpublished study prepared by S.C. Johnson Wax, Inc. 133 p.

44186010 Falbo, D. (1996) Efficacy Testing of Disinfectant Bathroom Duck--No Fragrance: Formula 7217H121 (BTC 2125M) Active Ingredient: Quaternary Ammomium Compound Fungistatic Claims 201M2: Amended Report: Lab Project Number: 8308: 106750: 201. Unpublished study prepared by S.C. Johnson Wax, Inc. 20 p.

44186011 Miles, S. (1996) Efficacy Testing of Disinfectant Bathroom Duck--No Fragrance: Formula 7217H121 (BTC 2125M) Virucidal Claims 201M3: Amended Report: Lab Project Number: 8308: 105697: 201M3. Unpublished study prepared by S.C. Johnson Wax, Inc. 39 p.

44186012 Falbo, D. (1996) Efficacy Testing of Disinfectant Bathroom Duck--Spring Fresh Scent: Formula 7217H120 (BTC 2125M): Amended Report: Lab Project Number: 8308: 106751: 200. Unpublished study prepared by S.C. Johnson Wax, Inc. 50 p.

44186013 Falbo, D. (1996) Efficacy Testing of Disinfectant Bathroom Duck--Country Garden: Formula 7217H140 (BTC 2125M): Amended Report: Lab Project Number: 8308: 106394: 212. Unpublished study prepared by S.C. Johnson Wax, Inc. 46 p.

44186014 Falbo, D. (1996) Residual Antibacterial Test for Bathroom Duck: 7217H12-MUP Active Ingredients: Quaternary Ammonium Compound DC 5772 MUP: Lab Project Number: 289M1: GLP 289M1: A041. Unpublished study prepared by S.C. Johnson Wax, Inc. 72 p.

44186015 Brady, C. (1996) One Minute Inactivation of Human Immunodeficiency Virus Type 1 (HIV-1) by 7217H121-MUP: Lab Project Number: 2395. Unpublished study prepared by ViroMed Laboratories, Inc. 9 p.

44186016 Bennett, M. (1996) The Evaluation of the Efficacy of 7217H121-MUP Against Escherichia coli (0157:H7): Lab Project Number: 2403. Unpublished study prepared by ViroMed Laboratories, Inc. 8 p.

44186017 Bennett, M. (1996) The Evaluation of the Efficacy of 7217H121-MUP Against Vancomycin Resistant Enterococcus faecalis: Lab Project Number: 2402. Unpublished study prepared by ViroMed Laboratories, Inc. 10 p.

44218900 S.C. Johnson & Son, Inc. (1996) Submission of Toxicity Data in Support of the Application for Registration of Raid BD 1. Transmittal of 1 Study.

44218901 Hoffman, G. (1997) An Acute (4-Hour) Inhalation Toxicity Study of Raid BD493 / n-Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl Benzyl Ammonium Chloride / n-Alkyl (68% C12, 32% C14) Dimethyl Ethylbenzyl Ammonium Chloride / 3-(Trimethoxysily) Propyl Dimethyl Octadecyl Ammonium Chloride (7217H121) in the Rat via Nose-Only Exposure: Revised Final Report: Lab Project Number: 92-5125: 925125. Unpublished study prepared by Huntingdon Life Sciences. 90 p.

44279400 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Applications for Registration for AM 500 I and AM 500. Transmittal of 4 Studies.

44279401 BioShield Technologies, Inc. (1997) Product Identity and Composition of AM 500 I and AM 500. Unpublished study. 14 p.

44279402 BioShield Technologies, Inc. (1997) Description of Beginning Materials and the Manufacturing Process of AM 500 I and AM 500. Unpublished study. 24 p.

44279403 Berkner, J. (1997) Discussion of Formation of Impurities in AM 500 I and AM 500. Unpublished study prepared by BioShield Technologies, Inc. 4 p.

44279404 Wells, D. (1997) AM500--Conducting Product Chemistry Studies for an End-Use Product Following Product Properties Test Guidelines: Final Report: Lab Project Number: 97-3-6913: 13637.1196.6100.880. Unpublished study prepared by Springborn Laboratories, Inc. 44 p. {OPPTS 830.6302, 830.6303, 830.6304, 830.7300, 830.7100, & 830.7000}

44351900 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Applications for Registration for BioShield AM 500 and BioShield AM 500 I. Transmittal of 1 Study.

44351901 Jellinek, Schwartz & Connolly, Inc. (1997) Preliminary Analysis, Certification of Ingredient Limits, and Analytical Method for Enforcement of Limits for BioShield AM 500 and BioShield AM 500 I: Lab Project Number: 13637.0497.6102.250: 102196/830.6317/BIOSHIELD. Unpublished study prepared by Springborn Laboratories, Inc. 13 p.

44376000 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Protectant Concentrate C15. Transmittal of 3 Studies.

44376001 BioShield Technologies, Inc. (1997) Product Identity of BST Protectant Concentrate C15. Unpublished study. 23 p.

44376002 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Protectant Concentrate C15: Lab Project Number: 102196/830.6317/BIOSHIELD. Unpublished study. 11 p.

44376003 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Protectant Concentrate C15. Unpublished study. 4 p.

44376200 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Registration of BST Protectant 50. Transmittal of 3 Studies.

44376201 BioShield Technologies, Inc. (1997) Product Identity of BST Protectant 50. Unpublished study. 23 p.

44376202 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Protectant 50. Unpublished study. 11 p.

44376203 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Protectant 50. Unpublished study. 4 p.

44379400 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of Application for the Registration of BST Protectant 75. Transmittal of 3 Studies.

44379401 BioShield Technologies, Inc. (1997) Product Identity of BST Protectant 75. Unpublished study. 23 p.

44379402 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Protectant 75. Unpublished study. 11 p.

44379403 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Protectant 75. Uupublished study. 4 p.

44385100 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Kleen Air 05. Transmittal of 3 Studies.

44385101 BioShield Technologies, Inc. (1997) Product Identity of BST Kleen Air 05. Unpublished study. 31 p.

44385102 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Kleen Air 05: Lab Project Number: 102196/830.6317/BIOSHIELD. Unpublished study. 12 p.

44385103 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Kleen Air 05. Unpublished study. 4 p.

44385200 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Fabric Softener 175. Transmittal of 3 Studies.

44385201 BioShield Technologies, Inc. (1997) Product Identity of BST Fabric Softener 175. Unpublished study. 67 p.

44385202 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Fabric Softener 175. Unpublished study. 12 p.

44385203 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Fabric Softener 175. Unpublished study. 4 p.

44385300 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Carpet and Upholstery Cleaner Aerosol 25. Transmittal of 3 Studies.

44385301 BioShield Technologies, Inc. (1997) Product Identity of BST Carpet and Upholstery Cleaner Aerosol 25. Unpublished study. 41 p.

44385302 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Carpet and Upholstery Cleaner Aerosol 25. Unpublished study. 11 p.

44385303 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Carpet and Upholstery Cleaner Aerosol 25. Unpublished study. 4 p.

44385600 Bioshield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Mold and Mildew Remover and All Purpose Cleaner 25. Transmittal of 3 Studies.

44385601 BioShield Technologies, Inc. (1997) Product Identity of BST Mold and Mildew Remover & All Purpose Cleaner 25. Unpublished study. 68 p.

44385602 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Mold and Mildew Remover & All Purpose Cleaner 25. Unpublished study. 12 p.

44385603 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Mold and Mildew Remover & All Purpose Cleaner 25. Unpublished study. 4 p.

44385700 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Carpet and Upholstery Concentrate C15. Transmittal of 3 Studies.

44385701 BioShield Technologies, Inc. (1997) Product Identity of BST Carpet and Upholstery Cleaner Concentrate C15. Unpublished study. 47 p.

44385702 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Carpet and Upholstery Cleaner Concentrate C15: Lab Project Number: 102196/830.6317/BIOSHIELD. Unpublished study. 12 p.

44385703 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Carpet and Upholstery Cleaner Concentrate C15. Unpublished study. 4 p.

44386000 BioShield Technologies, Inc. (1997) Submission of Product Chemistry Data in Support of the Application for Registration of BST Carpet and Upholstery Cleaner 25. Transmittal of 3 Studies.

44386001 BioShield Technologies, Inc. (1997) Product Identity of BST Carpet and Upholstery Cleaner 25. Unpublished study. 37 p.

44386002 BioShield Technologies, Inc. (1997) Certification of Limits and Analytical Method for Enforcement of Limits for BST Carpet and Upholstery Cleaner 25: Lab Project Number: 102196/830.6317/BIOSHIELD. Unpublished study. 11 p.

44386003 BioShield Technologies, Inc. (1997) Physical and Chemical Properties of BST Carpet and Upholstery Cleaner 25. Unpublished study. 4 p.

44507000 Atlantic Mills, Inc. (1998) Submission of Product Chemistry and Efficacy Data in Support of the Application for Registration of Kerri-Klean Microbe Guard. Transmittal of 2 Studies.

44507001 Griffin, H. (1998) Product Chemistry: Kerri-Klean Microbe Guard: Lab Project Number: 287. Unpublished study prepared by NAMSA. 34 p.

44507002 Griffin, H. (1998) Dow Corning Shake Flask: Kerri Klean Microbeguard: Lab Project Number: 287. Unpublished study prepared by NAMSA. 59 p.

44553500 BioShield Technologies, Inc. (1998) Submission of Toxicity Data in Support of the Application for Registration of BioShield AM 500 and BioShield 500 I. Transmittal of 1 Study.

44553501 Kuhn, J. (1998) Primary Eye Irritation Study in Rabbits: AM500: Final Report: Lab Project Number: 4263-98. Unpublished study prepared by Stillmeadow Inc. 21 p.

44649600 S.C. Johnson & Son, Inc. (1998) Submission of Efficacy Data in Support of the Registration of BD1. Transmittal of 3 Studies.

44649601 Falbo, D. (1998) Residual Antibacterial Efficacy of BD1: Lab Project Number: GLP 368M1: 368M1: 132247. Unpublished study prepared by S.C. Johnson Wax, Inc. 20 p.

44649602 Falbo, D. (1998) Residual Mold and Mildew Efficacy of BD1-7 Days: Lab Project Number: GLP 368M2: A124: 132246. Unpublished study prepared by S.C. Johnson Wax, Inc. 20 p.

44649603 Falbo, D. (1998) Residual Mold and Mildew Efficacy of BD1-14 Days: Lab Project Number: GLP 368M3: A124: 132246. Unpublished study prepared by S.C. Johnson Wax, Inc. 20 p.

44789800 BioShield Technologies, Inc. (1999) Submission of Toxicity Data in Support of the Application for Registration of BST Protectant 50. Transmittal of 1 Study.

44789801 Kuhn, J. (1999) Primary Eye Irritation Study in Rabbits: AM 500: Final Report: Lab Project Number: 4842-98. Unpublished study prepared by Stillmeadow, Inc. 17 p. {OPPTS 870.2400}

44789900 BioShield Technologies, Inc. (1999) Submission of Toxicity Data in Support of the Application for Registration of BST Protectant Concentrate C15. Transmittal of 1 Study.

44789901 Kuhn, J. (1999) Primary Eye Irritation Study in Rabbits: (BST Protectant Concentrate C15): Final Report: Lab Project Number: 4841-98. Unpublished study prepared by Stillmeadow, Inc. 17 p. {OPPTS 870.2400}

44876600 BioShield Technologies, Inc. (1999) Submission of Product Chemistry Data in Support of the Application for Registration of BioShield AMS 1860. Transmittal of 3 Studies.

44876601 Wells, D. (1999) AMS 1860-Preliminary Analysis: Lab Project Number: 13637.6119: 4.3.07(2). Unpublished study prepared by Springborn Laboratories, Inc. 51 p. {OPPTS. 830.1700}

44876602 Damico, J. (1999) AMS 1860-Certified Limits. Unpublished study prepared by BioShield Technologies, Inc. 4 p. {OPPTS. 830.1750}

44876603 Wells, D. (1999) AMS 1860-Product Chemistry Testing for an End-Use Product Following Product Properties Test Guidelines, Series 830: Lab Project Number: 13637.6118. Unpublished study prepared by Springborn Laboratories, Inc. 47 p. {OPPTS. 830.6302, 830.6303, 830.6304, 830.6315, 830.7300, 830.7100, 830.7000}

44885900 Bioshield Technologies, Inc. (1999) Submission of Product Chemistry Data in Support of the Application for Registration of Bioshield AMS 1860. Transmittal of 2 Studies.

44885901 Damico, J. (1999) Product Identity and Disclosure of Ingredients, Description of Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities: AMS-1860. Unpublished study prepared by SciReg, Inc. 73 p. {OPPTS 830.1550, 830.1620, 830.1670}

44885902 Wells, D. (1999) AMS 1860--Determination of the Boiling Point: Lab Project Number: 13637.6120. Unpublished study prepared by Springborn Laboratories. 25 p. {OPPTS 830.7200}

44914500 S.C. Johnson & Son, Inc. (1999) Submission of Product Chemistry, Toxicity, and Efficacy Data in Support of the Application for Registration of Raid 500. Transmittal of 14 Studies.

44914501 Grissmeyer, J. (1999) Product Chemistry Data for Raid 500, Formula Number 15194D48: Lab Project Number: 15194D109: ARTM-W-132013C: ARTM-W-132013B. Unpublished study prepared by S.C. Johnson and Son, Inc. 118 p. {OPPTS 830.1550, 830.1600, 830.1620, 830.1650, 830.1670, 830.1700, 830.1750, 830.1800}

44914502 Smith, G. (1999) Physical and Chemical Characteristics of Raid 500, Formula Number 15194D48: Lab Project Number: 15194D48-A2: 409A2: P-4. Unpublished study prepared by S.C. Johnson and Son, Inc. 21 p. {OPPTS 830.6303, 830.6303, 830.6304, 830.7300, 830.7000, 830.6315}

44914503 Bonnette, K. (1999) An Acute Oral Toxicity Study in Rats with Raid 500 Intermediate: Lab Project Number: 3068.198: 349. Unpublished study prepared by Springborn Laboratories, Inc. 26 p. {OPPTS 870.1100}

44914504 Bonnette, K. (1999) An Acute Dermal Toxicity Study in Rabbits with Raid 500 Intermediate: Lab Project Number: 3068.199: 349. Unpublished study prepared by Springborn Laboratories, Inc. 33 p. {OPPTS 870.1200}

44914505 Bonnette, K. (1999) An Acute Nose-Only Inhalation Toxicity Study in Rats with Raid 500 Intermediate: Final Report: Lab Project Number: 3068.200: 349. Unpublished study prepared by Springborn Laboratories, Inc. 54 p. {OPPTS 870.1300}

44914506 Bonnette, K. (1999) A Primary Eye Irritation Study in Rabbits with Raid 500: Aerosol Dosing Method: Amended Final Report: Lab Project Number: 3068.201: 409. Unpublished study prepared by Springborn Laboratories, Inc. 29 p. {OPPTS 870.2400}

44914507 Bonnette, K. (1999) A Confirmatory Primary Eye Irritation Study in Rabbits with Raid 500: Aerosol Dosing Method: Final Report: Lab Project Number: 3068.230: 409. Unpublished study prepared by Springborn Laboratories, Inc. 30 p. {OPPTS 870.2400}

44914508 Bonnette, K. (1999) A Primary Skin Irritation Study in Rabbits with Raid 500 Intermediate: Final Report: Lab Project Number: 3068.202: 349. Unpublished study prepared by Springborn Laboratories, Inc. 29 p. {OPPTS 870.2500}

44914509 Bonnette, K. (1999) A Dermal Sensitization Study in Guinea Pigs with Raid 500 Intermediate: Modified Buehler Design: Amended Final Report: Lab Project Number: 3068.203: 349. Unpublished study prepared by Springborn Laboratories, Inc. 63 p. {OPPTS 870.2600}

44914510 Falbo, D. (1999) Efficacy Testing of Raid 500: Amended Report: Lab Project Number: A0257: 409M1: 409. Unpublished study prepared by S.C. Johnson & Son, Inc. 19 p.

44914511 Falbo, D. (1999) Efficacy Testing of Raid 500: Amended Report: Lab Project Number: A0257: 409M2. Unpublished study prepared by S.C. Johnson & Son, Inc. 18 p.

44914512 Falbo, D. (1999) Raid 500--Efficacy Study: Amended Report: Lab Project Number: A0257: 409M3. Unpublished study prepared by S.C. Johnson & Son, Inc. 14 p.

44914513 Falbo, D. (1999) Raid 500--Efficacy Study: Amended Report: Lab Project Number: A0257: 409M4. Unpublished study prepared by S.C. Johnson & Son, Inc. 14 p.

44914514 Falbo, D. (1999) Efficacy Testing of Raid 500-F1: Lab Project Number: A0257: 411M1. Unpublished study prepared by S.C. Johnson & Son, Inc. 20 p.

44929100 BioShield Technologies, Inc. (1999) Submission of Product Chemistry Data in Support of the Application for Registration of AMS 1860. Transmittal of 1 Study.

44929101 Ward, T.; Rondon, C.; Boeri, R. (1999) AMS 1860: Determination of Stability at Normal and Elevated Temperatures and in the Presence of Metals and Metal Ions: Lab Project Number: 1853-BS. Unpublished study prepared by T.R. Wilbury Labs., Inc. 40 p. {OPPTS 830.6313}

44969200 S.C. Johnson and Son, Inc. (1999) Submission of Efficacy Data in Support of the Application for Registration of Raid 500. Transmittal of 3 Studies.

44969201 Onstad, B. (1999) EPA Hard Surface Mildew-Fungistatic Test (Raid 500): Final Study Report: Lab Project Number: 7488. Unpublished study prepared by Viromed Biosafety Labs. 9 p.

44969202 Ramm, K. (1999) Virucidal Efficacy of Disinfectants for use on Environmental Surfaces: Virus: Influenza Virus type A2 (Raid 500): Final Study Report: Lab Project Number: 7538: JW011899.FLU. Unpublished study prepared by Viromed Biosafety Labs. 11 p.

44969203 Ramm, K. (1999) Virucidal Efficacy of Disinfectants for use on Inanimate Environmental Surfaces: Virus: Rhinovirus type 39 (Raid 500): Final Study Report: Lab Project Number: 7539: JW021699.R39. Unpublished study prepared by Viromed Biosafety Labs. 11 p.

44972400 BioShield Technlogies, Inc. (1999) Submission of Product Chemistry Data in Support of the Application for Registration of BSTI 1860. Transmittal of 1 Study.

44972401 Damico, J. (1999) BSTI 1860: Product Identity and Disclosure of Ingredients, Description of Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by SciReg, Inc. 43 p. {OPPTS 830.1550, 830.1620,830.1620, 830.1670, 830.1750}

45121300 BioShield Technologies, Inc. (2000) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of AM 3651PI. Transmittal of 8 Studies.

45121301 Smith, F. (2000) AM 3651PI: Product Identity and Composition, Description of Beginning Materials, Description of Formula Process, Discussion of the Formation of Impurities, and Certified Limits. Unpublished study prepared by SciReg, Inc. 40 p. {OPPTS 830.1550, 830.1600, 830.1650, 830.1670, 830.1750}

45121302 Wells, D. (1999) AM 3651PI--Determination of Storage Stability: Lab Project Number: 13637.0897.6107.865: 13637.6107. Unpublished study prepared by Springborn Labs., Inc. 36 p. {OPPTS 830.6317}

45121303 Kuhn, J. (1999) AM 3651PI: Acute Oral Toxicity Study in Rats: Final Report: Lab Project Number: 4850-98. Unpublished study prepared by Stillmeadow, Inc. 24 p. {OPPTS 870.1100}

45121304 Kuhn, J. (1999) AM 3651P: Acute Dermal Toxicity Study in Rabbits: Final Report: Lab Project Number: 4851-98. Unpublished study prepared by Stillmeadow, Inc. 22 p. {OPPTS 870.1200}

45121305 Bennick, J. (1999) AM 3651P: Acute Inhalation Toxicity Study in Rats: Final Report: Lab Project Number: 4852-98. Unpublished study prepared by Stillmeadow, Inc. 36 p. {OPPTS 870.2400}

45121306 Kuhn, J. (1999) AM 3651P: Primary Dermal Irritation Study in Rabbits: Final Report: Lab Project Number: 4854-98. Unpublished study prepared by Stillmeadow, Inc. 13 p. {OPPTS 870.2400}

45121307 Kuhn, J. (1999) AM 3651P: Primary Dermal Irritation Study in Rabbits: Final Report: Lab Project Number: 4854-98. Unpublished study prepared by Stillmeadow, Inc. 13 p. {OPPTS 870.2500}

45121308 Kuhn, J. (1999) AM 3651P: Dermal Sensitization Study in Guinea Pigs: Final Report: Lab Project Number: 4855-98. Unpublished study prepared by Stillmeadow, Inc. 18 p. {OPPTS 870.2600}

45347600 Bioshield Technologies, Inc. (2001) Submission of Efficacy Data in Support of the Application for Registration AM 3651P. Transmittal of 2 Studies.

45347601 Snyder, A. (1999) AOAC Use-Dilution Method: AM 3651P: Final Study Report: Lab Project Number: 7361/SRC021099.UD: 7669/SRC061099.UD. Unpublished study prepared by ViroMed Biosafety Labs. 15 p.

45347602 Onstad, B. (2000) Germicidal and Detergent Sanitizing Action of Disinfectants: AM 3651P: Final Study Report: Lab Project Number: 7457: SRC050699.SAN. Unpublished study prepared by ViroMed Biosafety Labs. 10 p.

45810100 Goulston Technologies, Inc. (2002) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of AM-7 Antimicrobial. Transmittal of 3 Studies.

45810101 Miller, L. (2002) Goulston Technologies AM-7 Antimicrobial: Product Identity and Composition, Description of Materials Used to Produce the Product, Description of Formulation Process, Discussion of Formation of Impurities, Certified Limits, Enforcement Analytical Method, Submittal of Samples: Lab Project Number: GT-AM7-830: GC-09-00: ALTM040.DOC. Unpublished study prepared by Biologic, Inc. 101 p. {OPPTS 830.1550, 830.1600, 830.1650, 830.1670, 830.1750, 830.1800, 830.1900}

45810102 Miller, L. (2002) Goulston Technologies AM-7 Antimicrobial: Physical and Chemical Properties: Lab Project Number: GT-AM7-83001. Unpublished study prepared by Biologic, Inc. 6 p. {OPPTS 830.6302, 830.6303, 830.6304, 830.6315, 830.7000, 830.7100, 830.7220, 830.7300, 830.7840, 830.7950}

45810103 Cerven, D. (2002) Acute Eye Irritation in Rabbits: M 18001: Lab Project Number: MB 02-10168.04: 1200-01. Unpublished study prepared by MB Research Laboratories. 10 p. {OPPTS 870.2400}

46022700 SisShield Technologies, Inc. (2003) Submission of Product Chemistry Data in Support of the Application for Registration of SiS 7200. Transmittal of 3 Studies.

46022701 Haynes, D. (2003) SiS 7200: Product Identity and Disclosure of Ingredients, Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by SiShield Technologies, Inc. 46 p.

46022702 Fung, K.; Leung, H.; Roesch, E. (2003) Preliminary Analysis of Chemical Composition: SIS 7200 Alternative Formulation. Project Number: 3002. Unpublished study prepared by Ortec Inc. 20 p.

46022703 Haynes, D. (2003) SiS 7200 Certified Limits. Unpublished study prepared by SiShield Technologies, Inc. 4 p.

46023000 SiShield Technologies, Inc. (2003) Submission of Product Chemistry Data in Support of the Application for Registration of SiS Am 500 and SiS AM500I. Transmittal of 3 Studies.

46023001 Haynes, D. (2003) SiS AM 500 and SiS AM500I: Product Identity and Disclosure of Ingredients, Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by SisShield Technologies, Inc. 40 p.

46023002 Haynes, D. (2003) SiS AM500 and AM500I Certified Limits. Unpublished study prepared by SiShield Technologies, Inc. 4 p.

46023003 Fung, K.; Leung, H.; Roesch, E. (2003) Determination of Quaternary Ammonium Chloride Content in SiS AM 500 and SiS AM 500 Alternative. Project Number: 3003. Unpublished study prepared by Ortec, Inc. 14 p.

46054800 Marinize Products Corp (2003) Submission of Product Chemistry Data in Support of the Application for Registration of Miltrol. Transmittal of 3 Studies.

46054801 Sinning, D. (2003) Preliminary Analysis and Enforcement Analytical Method: Miltrol. Project Number: 3030/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 8 p.

46054802 Sinning, D. (2003) Physical and Chemical Characteristics of Miltrol: Physical State, Oxidation/Reduction, Flammability, pH, Viscosity and Relative Density. Project Number: 3030/02. Unpublished study prepared by Case Consulting Laboratories, Inc. 7 p.

46054803 Loder, E. (2003) Submission of Chemistry, Manufacturing Process and Confidential Statement of Formula: Miltrol. Project Number: MILTROL/1. Unpublished study prepared by Maranize Products, Corp. 4 p.

46279600 Marinize Products, Corp. (2004) Submission of Product Chemistry Data in Support of the Application for Registration of Miltrol. Transmittal of 1 Study.

46279601 Loder, E. (2004) Chemistry Data: Miltrol. Project Number: MITROL/1. Unpublished study prepared by Marinize Products, Corp. 31 p.

46341100 Jennico2, Inc. (2004) Submission of Product Chemistry Data in Support of the Application for Registration of Pine Cleaner. Transmittal of 2 Studies.

46341102 Sinning, D. (2004) Physical and Chemical Characteristics of MILTROL: Storage Stability and Corrosion Characteristics. Project Number: 3030/03. Unpublished study prepared by Case Consulting Laboratories, Inc. 9 p.

46579200 Marinize Products Corp. (2005) Submission of Efficacy Data in Support of the Amended Registration of Miltrol. Transmittal of 1 Study.

46579201 Loder, E. (2005) Efficacy of Organosilane On the Acute Mortality of American House Dust Mites: Final Report. Unpublished study prepared by Marinize Products, Inc. 32 p.

46693800 Aegis Environmental Management, Inc. (2005) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of Aegis 444-02 RTU Antimicrobial. Transmittal of 8 Studies.

46693801 Welch, C. (2005) Aegis 444-02 RTU Antimicrobial: Product Identity, Composition and Analysis (Group A). Project Number: AEM/44402/2005/1. Unpublished study prepared by ChemReg International, LLC. 36 p.

46693802 Sinning, D. (2005) Physical and Chemical Characteristics of AEGIS Antimicrobial 2% RTU: Flammability, pH, Viscosity and Relative Density: Final Report. Project Number: 3270/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 7 p.

46693803 Kuhn, J. (2005) Acute Oral Toxicity Study (UDP) in Rats: Aegis Exp-201: Final Report. Project Number: 8989/05. Unpublished study prepared by Stillmeadow, Inc. 11 p.

46693804 Kuhn, J. (2005) Acute Dermal Toxicity Study in Rabbits: Aegis Exp-201: Final Report. Project Number: 8990/05. Unpublished study prepared by Stillmeadow, Inc. 12 p.

46693805 Kuhn, J. (2005) Acute Dermal Irritation Study in Rabbits: Aegis Exp-201: Final Report. Project Number: 8993/05. Unpublished study prepared by Stillmeadow, Inc. 11 p.

46693806 Kuhn, J. (2005) Skin Sensitization Study in Guinea Pigs: Aegis Exp-201: Final Report. Project Number: 8994/05. Unpublished study prepared by Stillmeadow, Inc. 18 p.

46693807 Carter, L. (2005) Acute Inhalation Toxicity Study in Rats: Aegis Exp-201: Final Report. Project Number: 8991/05. Unpublished study prepared by Stillmeadow, Inc. 20 p.

46693808 Kuhn, J. (2005) Acute Eye Irritation Study in Rabbits: Aegis Exp-201: Final Report. Project Number: 8992/05. Unpublished study prepared by Stillmeadow, Inc. 17 p.

46714500 SiShield Technologies, Inc. (2005) Submission of Product Chemistry Data in Support of the Application for Registration of SiS 7200 WB. Transmittal of 3 Studies.

46714501 Weeden, D. (2005) SiS 7200 WB: Product Identity and Disclosure of Ingredients Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by SiShield Technologies, Inc. 49 p.

46714502 Fung, K.; Leung, H.; Roesch, E. (2003) Preliminary Analysis of Chemical Composition: SiS 7200. Project Number: 3002. Unpublished study prepared by Ortec, Inc. 20 p.

46714503 Weeden, D. (2005) SiS 7200 WB Certified Limits. Unpublished study prepared by SiShield Technologies, Inc. 4 p.

46731000 Microbe Guard, Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of Nanoguard. Transmittal of 3 Studies.

46731001 Weeden, D. (2006) NanoGuard: Product Identity and Disclosure of Ingredients, Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by Microbe Guard Inc. 54 p.

46731002 Allred, G.; Su, M. (2006) Preliminary Analysis of Chemical Composition: Nanoguard. Project Number: MGI/1201. Unpublished study prepared by Synthonix. 19 p.

46731003 Weeden, D. (2006) Nanoguard Certified Limits. Unpublished study prepared by Microbe Guard Inc. 4 p.

46755000 Microbe Guard, Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of DuraLast-I (MUP) and DuraLast (EUP). Transmittal of 3 Studies.

46755001 Weeden, D. (2006) DuraLast and DuraLast-I: Product Identity and Disclosure of Ingredients, Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by Microbe Guard, Inc. 25 p.

46755002 Allred, G.; Su, M. (2006) Determination of % Quaternary Ammonium Chloride by Biphasic Titration: Duralast. Project Number: MGI/1202, 101. Unpublished study prepared by Synthonix. 10 p.

46755003 Weeden, D. (2006) DuraLast-I and DuraLast Certified Limits. Unpublished study prepared by Microbe Guard, Inc. 4 p.

46916800 Marinize Products, Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of Marquat 72 MUP. Transmittal of 1 Study.

46916801 Sinning, D. (2006) Physical and Chemical Characteristics of Marquat: Physical State, Oxidation/Reduction, Flammability, pH, Viscosity and Relative Density. Project Number: 3490/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 12 p.

46921200 Biosafe, Inc. (2006) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of HM4100 Antimicrobial. Transmittal of 7 Studies.

46921201 Sinning, D. (2006) Physical and Chemical Characteristics of HM-4100: Physical State, Oxidation/Reduction, pH, and Bulk Density. Project Number: 3450/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 7 p.

46921202 Kuhn, J. (2006) Skin Sensitization: Local Lymph Node Assay in Mice: HM-4100: Amended Final Report. Project Number: 9671/06. Unpublished study prepared by Stillmeadow, Inc. 13 p.

46921203 Carter, L. (2006) Acute Inhalation Toxicity Study in Rats: HM-4100: Final Report. Project Number: 9668/06. Unpublished study prepared by Stillmeadow, Inc. 18 p.

46921205 Kuhn, J. (2006) Acute Oral Toxicity Study (UDP) in Rats: HM-4100: Final Report. Project Number: 9666/06. Unpublished study prepared by Stillmeadow, Inc. 11 p.

46921206 Kuhn, J. (2006) Acute Dermal Irritation Study in Rabbits: HM-4100: Amended Final Report. Project Number: 9670/06. Unpublished study prepared by Stillmeadow, Inc. 12 p.

46921207 Kuhn, J. (2006) Acute Dermal Toxicity Study in Rabbits: HM-4100: Amended Final Report. Project Number: 9667/06. Unpublished study prepared by Stillmeadow, Inc. 14 p.

46923900 Piedmont Chemical Industries I, Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of Ztrex 72 Antimicrobial MUP. Transmittal of 2 Studies.

46923901 Sinning, D. (2006) Ztrex 72 Antimicrobial Agent MUP: Preliminary Analysis and Enforcement Analytical Method. Project Number: 3500/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 8 p.

46923902 Sinning, D. (2006) Physical and Chemical Characteristics of Ztrex 72 Antimicrobial Agent MUP: Color, Physical State, Odor, Oxidation/Reduction, Flammability, pH, Viscosity and Relative Density. Project Number: 3500/02. Unpublished study prepared by Case Consulting Laboratories, Inc. 7 p.

46942800 Biosafe, Inc. (2006) Submission of Toxicity Data in Support of the Application for Registration of HM4100 Antimicrobial. Transmittal of 1 Study.

46942801 Kuhn, J. (2006) Acute Eye Irritation Study in Rabbits: HM-4100: Amended Final Report. Project Number: 9669/06. Unpublished study prepared by Stillmeadow, Inc. 18 p.

46965100 American MoldGuard, Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of AMG-X40. Transmittal of 1 Study.

46965101 Jacoby, H. (2006) Product Chemistry in Support of AMG-X40: Group A Product Identity and Composition. Project Number: 292/001/02. Unpublished study prepared by Acta Group, L.L.C. 17 p.

47023900 Microbe Guard Inc. (2006) Submission of Product Chemistry Data in Support of the Application for Registration of Mold Shield. Transmittal of 3 Studies.

47023901 Weeden, D. (2006) Mold Shield: Product Identity and Disclosure of Ingredients, Description of the Beginning Materials and Manufacturing Process, and Discussion of the Formation of Impurities. Unpublished study prepared by Microbe Guard Inc. 36 p.

47023902 Allred, G.; Su, M. (2006) Mold Shield: Determination of % Quaternay Ammonium Chloride by Biphasic Tiltration. Project Number: MG/0505. Unpublished study prepared by Synthonix. 11 p.

47023903 Weeden, D. (2006) Mold Shield: Certified Limits. Unpublished study prepared by Microbe Guard Inc. 4 p.

47042500 Biosafe, Inc. (2007) Submission of Product Chemistry Data in Support of the Application for Registration of HM4100 Antimicrobial. Transmittal of 1 Study.

47042501 Getman, G. (2007) Product Chemistry Data of HM 4100: Group A-Product Identity, Composition, and Analysis. Project Number: 11282006/02. Unpublished study prepared by Biosafe, Inc. 35 p.

47050000 Marinize Products, Inc. (2007) Submission of Product Chemistry Data in Support of the Application for Registration of Marquat 72 MUP. Transmittal of 1 Study.

47050001 Sinning, D. (2006) Marquat: Preliminary Analysis and Enforcement Analytical Method. Project Number: 3490/03. Unpublished study prepared by Case Consulting Laboratories, Inc. 15 p.

47053600 Piedmont Chemical Industries I LLC (2007) Submission of Product Chemistry Data in Support of the Application for Registration of Ztrex 72 Antimicrobial Agent MUP. Transmittal of 5 Studies.

47053601 Bralkowski, M. (2007) Ztrex 72 Antimicrobial Agent MUP: Product Properties Test Guideline Submission. Project Number: 830/1550. Unpublished study prepared by Piedmont Chemical Industries I, LLC. 6 p.

47053602 Bralkowski, M. (2007) Ztrex 72 Antimicrobial Agent MUP: Product Properties Test Guideline Submission. Project Number: 830/1600. Unpublished study prepared by Piedmont Chemical Industries I, LLC. 36 p.

47053603 Bralkowski, M. (2007) Ztrex 72 Antimicrobial Agent MUP: Product Properties Test Guideline Submission. Project Number: 830/1620. Unpublished study prepared by Piedmont Chemical Industries I, LLC. 7 p.

47053604 Bralkowski, M. (2007) Ztrex 72 Antimicrobial Agent MUP: Product Properties Test Guideline Submission. Project Number: 830/6316. Unpublished study prepared by Piedmont Chemical Industries I, LLC. 3 p.

47053605 Bralkowski, M. (2007) Ztrex 72 Antimicrobial Agent MUP: Product Properties Test Guideline Submission. Project Number: 830/6319. Unpublished study prepared by Piedmont Chemical Industries I, LLC. 3 p.

47121600 WM Barr and Company Inc. (2007) Submission of Product Chemistry Data in Support of the Application for Registration of Maquat 72-MUP. Transmittal of 1 Study.

47121601 Rice, C. (2007) Product Identity and Composition: Maquat-72 MUP. Unpublished study prepared by W.M. Barr & Co. 8 p.

47169200 Coatings Specialist Group (2007) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of Sports-Aide 1000. Transmittal of 7 Studies.

47169201 Sinning, D. (2007) Physical and Chemical Characteristics of Sportsaide 1000: Physical State, Oxidation/Reduction, pH, Viscosity and Relative Density. Project Number: 3760/01. Unpublished study prepared by Case Consulting Laboratories, Inc. 7 p.

47169202 Kuhn, J. (2007) Acute Eye Irritation Study in Rabbits: Sportsaide 1000: Final Report. Project Number: 10793/07. Unpublished study prepared by Stillmeadow, Inc. 17 p.

47169203 Kuhn, J. (2007) Acute Dermal Irritation Study in Rabbits: Sportsaide 1000: Final Report. Project Number: 10794/07. Unpublished study prepared by Stillmeadow, Inc. 11 p.

47169204 Kuhn, J. (2007) Skin Sensitization Study in Guinea Pigs: Sportsaide 1000: Final Report. Project Number: 10795/07. Unpublished study prepared by Stillmeadow, Inc. 18 p.

47169205 Kuhn, J. (2007) Acute Oral Toxicity Study (UDP) in Rats: Sportsaide 1000: Final Report. Project Number: 10790/07. Unpublished study prepared by Stillmeadow, Inc. 11 p.

47169206 Kuhn, J. (2007) Acute Dermal Toxicity Study in Rats: Sportsaide 1000: Final Report. Project Number: 10791/07. Unpublished study prepared by Stillmeadow, Inc. 12 p.

47169207 Crutchfield, V. (2007) Acute Inhalation Toxicity Study in Rats: Sportsaide 1000: Final Report. Project Number: 10792/07. Unpublished study prepared by Stillmeadow, Inc. 18 p.

93218000 Dow Corning Corp. (1990) Reregistration Phase 3 Response: Trimethoxysilyl)propyl dimethyl octadecyl ammonium chloride.

93218001 White, W. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00130316 and Related MRIDs 00164909, 00070190. Product Identity and Composition: [Dow Corning 5700 Antimicrobial and Dow Corning 5772 Antimicrobial Agents]. 16 p.

93218004 White, W. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00070190 and Related MRIDs 00130316, 00129565. Physical and Chemical Characteristics: [Dow Corning 5700 Antimicrobial Agent, Dow Corning 5772 Antimicrobial Agent, Slygard Antimicrobial Agent]. 14 p.

93218005 Annelin, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385218. Acute Oral LD50 - Mallard Duck: Project 9411-03. Prepared by Wildlife International Ltd. 11 p.

93218006 Annelin, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385217. Eight Day Dietary LC50 - Mallard Duck: Project 9411-03. Prepared by Wildlife International Ltd. 10 p.

93218007 Annelin, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00130321 and Related MRIDs 40385202. Four-Day Static Fish Toxicity Studies with Dow Corning 5700 Antimicrobial Agent in Rainbow Trout and Bluegills. Prepared by Industrial Bio-Test Labs. Inc. 11 p.

93218008 Hess, C.; White, W.; Weaver, M. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385219. Determination of Respirable Particle Size during Spray Application of Sylgard Antimicrobial Treatment. Prepared by DOW CORNING CORP. 11 p.

93218009 Annelin, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385215. Acute Toxicity of Corning 5700 Antimicrobial Agent to Daphnia magna in a Static System. Prepared by Dow Corning Corp. 10 p.

93218010 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00130318 and Related MRIDs 41157801, 00164911. Acute Toxicological Properties and Industrial Handling Hazards of Dow Corning Q9-5700 Fluid, a Potential Antimicrobial Agent. Prepared by Dow Corning Corp. 8 p.

93218011 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00130319 and Related MRIDs 00164912, 40385201. Acute Toxicological Properties of Dow Corning Q9-5700: Acute Oral Toxicology in the Rat. Prepared by Dow Corning Corp. 8 p.

93218012 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00130319 and Related MRIDs 00164912, 40385201. Acute Toxicologic Properties of Dow Corning Q9-5700: Acute Dermal Toxicity in Rabbits. Prepared by Dow Corning Corp. 9 p.

93218013 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385201 and Related MRIDs 00130318, 00164912. Acute Toxicologic Properties of Dow Corning Q9-5700. Prepared by Dow Corning. 12 p.

93218014 Kolesar, G. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41157803 and Related MRIDs 00057346, 40385219, 40385216. An Acute Aerosol Inhalation Toxicity Study with Dow Corning 5772 Compound in Rats. Prepared by Dow Corning Corp. 11 p.

93218015 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41157801 and Related MRIDs 00164911, 00130318. Acute Toxicological Properties and Industrial Handling Hazards of Dow Corning Q9-5700 Fluid, a Potential Antimicrobial Agent: Primary Eye Irritation in the Rabbit. Prepared by Dow Corning Corp. 8 p.

93218016 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41157802 and Related MRIDs 00130320. Eye and Skin Irritation Potential of Diluted Dow Corning Q9-5700, a Potential Biocide: Primary Eye Irritation in the Rabbit. Prepared by Dow Corning Corp. 10 p.

93218017 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385201 and Related MRIDs 00164912, 00130319. Acute Toxicologic Properties of Dow Corning Q9-5700: Primary Eye Irritation in the Rabbit. Prepared by Dow Corning Corp. 11 p.

93218018 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41157801 and Related MRIDs 00164911, 00130318. Acute Toxicological Properties and Industrial Handling Hazards of Dow Corning Q9-5700 Fluid, a Potential Antimicrobial Agent: Primary Dermal Irritation Study. Prepared by Dow Corning Corp. 9 p.

93218019 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41157802 and Related MRIDs 00130320. Eye and Skin Irritation Potential of Diluted Dow Corning Q9-5700, a Potential Biocide. Prepared by Dow Corning Corp. 8 p.

93218020 Groh, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385201 and Related MRIDs 00164912, 00130319. Acute Toxicologic Properties of Dow Corning Q9-5700: Primary Dermal Irritation Study. Prepared by Dow Corning Corp. 8 p.

93218021 Siddiqui, W. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41339403. A 90-Day Subchronic Dermal Toxicity Study of Dow Corning 5700 Hydrolysate in Rats. Prepared by Dow Corning Corp. 11 p.

93218022 Siddiqui, W. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41438003 and Related MRIDs 41438002. Developmental Toxicity Studies of Dow Corning 5700 Hydrolysate in Rats. Prepared by Dow Corning Corp. 25 p.

93218023 Isquith, A. (1990) Dow Corning Corp. Phase 3 Summary of MRID 00057346 and Related MRID 40385216. Percutaneous Absorption of Dow Corning 5700 Antimicrobial Agent in Rabbits. Prepared by Dow Corning Corp. 15 p.

93218024 Dwane, M. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41339402. A 14-Day Rangefinding Dermal Toxicity Study with Dow Corning Q9-5700 Hydrolysate in Rats. Prepared by Dow Corning Corp. 14 p.

93218025 Kolesar, G. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385219. Determination of Respirable Particle Size During Spray Application of Slygard Antimicrobial Treatment. Prepared by Dow Corning Corp. 9 p.

93218027 Henrich, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41353302 and Related MRIDs 41353301, 41296801. Mutagenicity Test on Dow Corning 5700 Hydrolysate in the L51784 TK +/- Mouse Lymphoma Forward Mutation Assay - Supplemental Studies: Project 10864. Prepared by Hazleton Labs. America, Inc. 18 p.

93218028 Henrich, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41296803 and Related MRIDs 41296802. Mutagenicity Test on Dow Corning 5700 Hydrolysate in vivo Mouse Micronucleus Assay: Project 10864. Prepared by Hazleton Laboratories America, Inc. 12 p.

93218029 Henrich, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41296802 and Related MRIDs 41296803. Single Acute Exposure Dose Selection on Dow Corning 5700 Hydrolysate: Project 10864. Prepared by Hazleton Laboratories America, Inc. 12 p.

93218030 Henrich, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 41296804. Mutagenicity Test on Dow Corning 5700 Hydrolysate in the Rat Primary Hepatocyte Unscheduled DNA Synthesis Assay: Project 10864. Prepared by Dow Corning Corp. 15 p.

93218031 Isquith, A. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385216 and Related MRIDs 00057346. Percutaneous Absorption of Dow Corning 5700 Antimicrobial Agent in Rabbits. Prepared by Dow Corning Corp. 16 p.

93218032 White, C. (1990) Dow Corning Corp. Phase 3 Summary of MRID 40385214 and Related MRIDs 00028989, 00029136, 00029137. Residue Analytical Method: [Dow Corning 5700 Antimicrobial Agent]. Prepared by Dow Corning Corp. 12 p.

93218033 Beavers, J.; Fink, R. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385218. Acute Oral LD50 - Mallard Duck: Project 9411. Prepared by Wildlife International, Ltd. 16 p.

93218034 Beavers, J.; Fink, R. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385217. Eight Day Dietary LC50 - Mallard Duck: Project 9411-03. Prepared by Wildlife International Ltd. 16 p.

93218035 Rausina, G. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385202 and Related MRIDs 00130321. Four-day Static Fish Toxicity Studies with Dow Corning 5700 Antimicrobial Agent in Rainbow Trout and Bluegills: IBT No. A1904. Prepared by Industrial Bio-Test Laboratories, Inc. 19 p.

93218037 Annelin, R.; Humble, D. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385215. Acute Toxicity of Dow Corning 5700 Antimicrobial Agent to Daphnia magna in a Static System: Project 1853-14. Prepared by Dow Corning Corp. 5 p.

93218038 Kolesar, G.; Siddiqui, W.; Stanton, E. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 41157803 and Related MRIDs 40385216, 00057346. An Acute Aerosol Inhalation Toxicity Study with Dow Corning 5772 Compound in Rats. Prepared by Dow Corning Co. 33 p.

93218039 Schechtman, L.; Beard, S. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 00028990. Mutagenicity Test on Dow Corning 5700 Antimicrobial Agent in the in vitro Mammalian Cell Transformation Assay in the Absence of Exogenous Metabolic Activation: Project No. T1482. Prepared by Microbiological Associates. 28 p.

93218040 Young, R. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 41353302. Supplemental Studies to the Mutagenicity Test on DC 5700 Hydrolysate in the L5178Y TK+/- Mouse Lymphoma Forward Mutation Assay: Final Report: HLA Study No. 10864-0-431 SUP. Prepared by Hazleton Laboratories America, Inc. 29 p.

93218041 Siddiqui, W.; Malek, J.; Shells, E. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385216 and Related MRIDs 00057346. Percutaneous Absorption of Dow Corning 5700 Antimicrobial Agent in Rabbits. Prepared by Dow Corning Corp. 22 p.

93218042 Isquith, A.; Malek, J.; McGee, J. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385214. Durability of Dow Corning 5700 Antimicrobial Agent on Textiles. Prepared by Dow Corning Corp. 22 p.

93218043 Isquith, A.; Malek, J.; Angelotti, N. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 00028989. Durability of Dow Corning 5700 Antimicrobial Agent on Textiles. Prepared by Dow Corning Corp. 19 p.

93218044 Carpenter, J.; Walters, P. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385209. Three-month Human Wear Test with Dow Corning Q9-5700 Treated Athletic Socks. Prepared by Burlington Industries, Inc. 12 p.

93218045 Schechtman, L.; Beard, S. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385213. Mutagenicity Test on Dow Corning 5700 Antimicrobial Agent in the in vitro Mammalian Cell Transformation Assay in the Presence of Exogenous Metabolic Activation: Project No. T1483. Prepared by Microbiological Associates. 27 p.

93218046 Carpenter, J.; Walters, P. (1990) Dow Corning Corp. Phase 3 Reformat of MRID 40385208. 32-Day Human Wear Test with Dow Corning Q9-5700 Treated Socks. Prepared by Burlington Industries, Inc. 18 p.

93218047 Dwane, M. (1990) Dow Corning Corp. Phase 3 Summary of MRID 42456513. Acute Dermal Irritation Study of Dow Corning 5772 Antimicrobial Agent: Project X9-6346. Prepared by DOW CORNING CORP. 8 p.

93218048 Henrich, R. (1990) Dow Corning Corp. Phase 3 Summary of MRID 42456516. Mutagenicity Test on Dow Corning 5700 Antimicrobial Agent in the Bacterial Reverse Mutation Assay. Prepared by DOW CORNING CORP. 14 p.

93218049 Dwane, M. (1990) Dow Corning Corp. Phase 3 Summary of MRID 42456511. Acute Oral Toxicity of Dow Corning 5772 Antimicrobial Agent: Project X9-6346. Prepared by DOW CORNING CORP. 7 p.

93218999 Dow Corning Corp. (1990) Reregistration Phase 3 Response: Trimethoxysilyl)propyl dimethyl octadecyl ammonium chloride. Correspondence and Supporting Material.

93219000 William G. Roessler (1990) Reregistration Phase 3 Response: Didecyl-N-methyl-3-(trimethoxysilyl) propanaminium chloride.

93219001 Klein, S. (1990) William G. Roessler Phase 3 Summary of MRID 00101490 and Related MRIDs 00128481, 00105988, 00105186. Product Identity and Composition: [Requat]. 17 p.

93219002 Klein, S. (1990) William G. Roessler Phase 3 Summary of MRID 00101490 and Related MRIDs 00128481, 00105988. Physical and Chemical Characteristics: [Requat]. 5 p.

93219003 Klein, S. (1990) William G. Roessler Phase 3 Summary of MRID 00101491. Eight-Day Dietary LC:50 -- Bobwhite Quail: Project No. 180-101. Prepared by Wildlife International, Ltd. 6 p.

93219004 Grim, J. (1990) William G. Roessler Phase 3 Summary of MRID 00105187. Fish Toxicity Rainbow Trout-TEP: [Requat]. Prepared by Northeastern Biologists. 9 p.

93219005 Grim, J. (1990) William G. Roessler Phase 3 Summary of MRID 00105187. Invertebrate Toxicity-TEP Daphnia magna: [Requat]. Prepared by Northeastern Biologists. 8 p.

93219006 Klein, S. (1990) William G. Roessler Phase 3 Summary of MRID 00086703. Dermal Sensitization: [Requat]. Prepared by Product Investigations, Inc. 5 p.

93219007 Klein, S. (1990) William G. Roessler Phase 3 Summary of MRID 00086702 and Related MRIDs 00109274, 00126470. 90-Day Dermal - Rodent: [Requat]. Prepared by Sanitized A.G. 6 p.

93219008 Entrup, M. (1990) William G. Roessler Phase 3 Summary of MRID 00105185 and Related MRIDs 00128480. The Salmonella/Microsomal Assay of Bacterial Activity of Requat 1977 Liquid with 50% Methanol: Study 82-0671-21. Prepared by Hill Top Research, Inc. 10 p.

93219999 William G. Roessler (1990) Reregistration Phase 3 Response: Didecyl-N-methyl-3-(trimethoxysilyl) propanaminium chloride. Correspondence and Supporting Material.

Appendix E. Generic Data Call-In

The Agency intends to issue a Generic Data Call-In at a later date. See Chapter V of the trimethoxysilyl quats RED for a list of studies that the Agency plans to require.

Appendix F. Product Specific Data Call-In

The Agency intends to issue a Product Specific Data Call-In for trimethoxysilyl quats at a later date.

Appendix G. Batching of Trimethoxysilyl Quats Products for Meeting Acute Toxicity Data Requirements for Reregistration.

The Agency intends to insert the batching for the trimethoxysilyl quats at a later date.

Appendix H. List of All Registrants Sent the Data Call-In

The Agency intends to insert the list of registrants for the trimethoxysilyl quats at a later date.

Appendix I. List of Available Related Documents and Electronically Available Forms

Pesticide Registration Forms are available at the following EPA internet site: http://www.epa.gov/opprd001/forms/.

Pesticide Registration Forms (These forms are in PDF format and require the Acrobat reader)

Instructions

1. Print out and complete the forms. (Note: Form numbers that are bolded can be filled out on your computer then printed.)

2. The completed form(s) should be submitted in hardcopy in accord with the existing policy.

3. Mail the forms, along with any additional documents necessary to comply with EPA regulations covering your request, to the address below for the Document Processing Desk.

DO NOT fax or e-mail any form containing 'Confidential Business Information' or 'Sensitive Information.'

If you have any problems accessing these forms, please contact Nicole Williams at (703) 308-5551 or by e-mail at williams.nicole@epamail.epa.gov.

The following Agency Pesticide Registration Forms are currently available via the internet at the following locations:

8570-1	Application for Pesticide Registration/Amendment	http://www.epa.gov/opprd001/forms/8570-1.pdf
8570-4	Confidential Statement of Formula	http://www.epa.gov/opprd001/forms/8570-4.pdf
8570-5	Notice of Supplemental Registration of Distribution of a Registered Pesticide Product	http://www.epa.gov/opprd001/forms/8570-5.pdf
8570-17	Application for an Experimental Use Permit	http://www.epa.gov/opprd001/forms/8570-17.pdf
8570-25	Application for/Notification of State Registration of a Pesticide To Meet a Special Local Need	http://www.epa.gov/opprd001/forms/8570-25.pdf
8570-27	Formulator's Exemption Statement	http://www.epa.gov/opprd001/forms/8570-27.pdf
8570-28	Certification of Compliance with Data Gap Procedures	http://www.epa.gov/opprd001/forms/8570-28.pdf
8570-30	Pesticide Registration Maintenance Fee Filing	http://www.epa.gov/opprd001/forms/8570-30.pdf
8570-32	Certification of Attempt to Enter into an Agreement with other Registrants for Development of Data	http://www.epa.gov/opprd001/forms/8570-32.pdf
8570-34	Certification with Respect to Citations of Data (in PR Notice 98-5)	http://www.epa.gov/opppmsd1/PR_Notices/pr98-5.pdf
8570-35	Data Matrix (in PR Notice 98-5)	http://www.epa.gov/opppmsd1/PR_Notices/pr98-5.pdf

8570-36	Summary of the Physical/Chemical Properties (in PR Notice 98-1)	http://www.epa.gov/opppmsd1/PR_Notices/pr98-1.pdf
8570-37	Self-Certification Statement for the Physical/Chemical Properties (in PR Notice 98-1)	http://www.epa.gov/opppmsd1/PR_Notices/pr98-1.pdf

Pesticide Registration Kit
www.epa.gov/pesticides/registrationkit/.

Dear Registrant:

For your convenience, we have assembled an online registration kit that contains the following pertinent forms and information needed to register a pesticide product with the U.S. Environmental Protection Agency's Office of Pesticide Programs (OPP):

1. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Federal Food, Drug and Cosmetic Act (FFDCA) as Amended by the Food Quality Protection Act (FQPA) of 1996.

2. Pesticide Registration (PR) Notices

   a. 83-3 Label Improvement Program—Storage and Disposal Statements

   b. 84-1 Clarification of Label Improvement Program

   c. 86-5 Standard Format for Data Submitted under FIFRA

   d. 87-1 Label Improvement Program for Pesticides Applied through Irrigation Systems (Chemigation)

   e. 87-6 Inert Ingredients in Pesticide Products Policy Statement

   f. 90-1 Inert Ingredients in Pesticide Products; Revised Policy Statement

   g. 95-2 Notifications, Non-notifications, and Minor Formulation Amendments

   h. 98-1 Self Certification of Product Chemistry Data with Attachments (This document is in PDF format and requires the Acrobat reader.)

Other PR Notices can be found at http://www.epa.gov/opppmsd1/PR_Notices.

3. Pesticide Product Registration Application Forms (These forms are in PDF format and will require the Acrobat reader.)

   a. EPA Form No. 8570-1, Application for Pesticide Registration/Amendment

b. EPA Form No. 8570-4, Confidential Statement of Formula

c. EPA Form No. 8570-27, Formulator's Exemption Statement

d. EPA Form No. 8570-34, Certification with Respect to Citations of Data

e. EPA Form No. 8570-35, Data Matrix

4. General Pesticide Information (Some of these forms are in PDF format and will require the Acrobat reader.)

a. Registration Division Personnel Contact List

b. Biopesticides and Pollution Prevention Division (BPPD) Contacts

c. Antimicrobials Division Organizational Structure/Contact List

d. 53 F.R. 15952, Pesticide Registration Procedures; Pesticide Data Requirements (PDF format)

e. 40 CFR Part 156, Labeling Requirements for Pesticides and Devices (PDF format)

f. 40 CFR Part 158, Data Requirements for Registration (PDF format)

g. 50 F.R. 48833, Disclosure of Reviews of Pesticide Data (November 27, 1985)

Before submitting your application for registration, you may wish to consult some additional sources of information. These include:

1. The Office of Pesticide Programs' Web Site

2. The booklet "General Information on Applying for Registration of Pesticides in the United States", PB92-221811, available through the National Technical Information Service (NTIS) at the following address:

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161

The telephone number for NTIS is (703) 605-6000. Please note that EPA is currently in the process of updating this booklet to reflect the changes in the registration program resulting from the passage of the FQPA and the reorganization of the Office of Pesticide Programs. We

anticipate that this publication will become available during the Fall of 1998.

3. The National Pesticide Information Retrieval System (NPIRS) of Purdue University's Center for Environmental and Regulatory Information Systems. This service does charge a fee for subscriptions and custom searches. You can contact NPIRS by telephone at (765) 494-6614 or through their Web site.

4. The National Pesticide Telecommunications Network (NPTN) can provide information on active ingredients, uses, toxicology, and chemistry of pesticides. You can contact NPTN by telephone at (800) 858-7378 or through their Web site: ace.orst.edu/info/nptn.

The Agency will return a notice of receipt of an application for registration or amended registration, experimental use permit, or amendment to a petition if the applicant or petitioner encloses with his submission a stamped, self-addressed postcard. The postcard must contain the following entries to be completed by OPP:

Date of receipt
EPA identifying number
Product Manager assignment

Other identifying information may be included by the applicant to link the acknowledgment of receipt to the specific application submitted. EPA will stamp the date of receipt and provide the EPA identifying File Symbol or petition number for the new submission. The identifying number should be used whenever you contact the Agency concerning an application for registration, experimental use permit, or tolerance petition.
To assist us in ensuring that all data you have submitted for the chemical are properly coded and assigned to your company, please include a list of all synonyms, common and trade names, company experimental codes, and other names which identify the chemical (including "blind" codes used when a sample was submitted for testing by commercial or academic facilities). Please provide a CAS number if one has been assigned.