



## The logo for Aquatain AMF Liquid Mosquito Film. It features the text "Aquatain AMF" in a large, bold, white, italicized sans-serif font. Below this, the words "LIQUID" and "MOSQUITO FILM" are stacked in a smaller, bold, white, all-caps sans-serif font. The entire text is set against a dark red rectangular background with a black border.

## LIST OF AVAILABLE DOCUMENTS

April 2017

---

## **LIST OF AVAILABLE DOCUMENTS**

Many papers have been prepared on various aspects of Aquatain AMF. In addition, a wide range of material is available on silicones (chemical name of polydimethylsiloxane, or PDMS for short) – the active component in Aquatain AMF.

This paper gives a list of the main documents under relevant headings, as well as a summary of each section.

## SECTION 1: ACTIVE INGREDIENT INFORMATION

R415	Overview Of Silicones
R401	Chemical Characteristics Of Silicones
R403	Summary Of Evaluations Of PDMS By International Agencies
R404	Heavy Metals Test Report
R410	SDS For Dow Corning PDMS Silicone
R480	Declaration Of Origin of Active Ingredient
R485	Dow Corning Quality Management System
R486	Manufacturing Processes Of Silicones And Aquatain AMF
R490	Quality Guarantee Certificate

### KEY POINTS

Silicones (PDMS) are used in a wide number of applications in the modern world – including industrial uses, cosmetics and even in the food industry.

Silicones are inert chemicals which have many characteristics which make them ideal for this current application.

They are manufactured by a small number of multinational companies, and quality control systems in their production are very strict.

## SECTION 2: MANUFACTURING / TECHNICAL DOCUMENTS

R405	Aquatain AMF Material Safety Data Sheet
R406	Aquatain AMF Technical Data Sheet
R460	Certificate of Analysis Aquatain AMF
R461	Certificate of Analysis PDMS
R475	Concentration, Stability And Shelf Life Report
R465	Australia Certificate of Manufacture

### KEY POINTS

Aquatain AMF meets all of the requirements of a non-toxic, stable, highly refined and professional product.

## SECTION 3: ENVIRONMENTAL ASPECTS

R105	Environmental Fate And Effects of PDMS
R115	Fate And Effects of PDMS In Marine Environments
R120	Sri Lankan NARA Report
R125	Water Quality Report Van De Graaff
R135	Degradation of Silicone Polymers In Nature
R140	Polydimethylsiloxane Does Not Bioaccumulate

### KEY POINTS

Silicones degrade in the environment into harmless silicates – the most common element on the earth's crust.

They do not bioaccumulate.

They are listed as a polymer of low concern by the Australian authorities.

## SECTION 4: TOXICITY REPORTS

R535	PDMS As A Food Additive
R205	PDMS Eye Irritancy Report
R515	JACC Toxicity Report On PDMS
R520	ERMA NZ Toxicology Review of PDMS
R525	PDMS Chronic Toxicity Study In Rats
R526	Acute Dermal Irritation Study (OECD 404)
R527	Acute Eye Irritation Study (OECD 405)
R528	Skin Sensitization Study (OECD 406)
R540	General Standards For Food Additives
R550	Code of Federal Regulations Title 21
R575	NSF Certification
R576	BSE-TSE Free Certificate
R580	The Physical Action of Monolayer Films
R581	How Aquatain AMF Works
R590	Impact On Non-Target Species (Extracts From Reports)
CR565	Acute Dermal Toxicity Study (OECD 402) (Cantonese)
CR566	403 Acute Inhalation Toxicity Study (OECD 403) (Cantonese)
CR567	Acute Dermal Irritation Study (OECD 404) (Cantonese)
CR568	Acute Eye Irritation Study (OECD 405) (Cantonese)
CR569	Acute Oral Toxicity Study (OECD 425) (Cantonese)
WR525	PDMS Chronic Toxicity Study In Rats (WaterGuard)
WR540	General Standards For Food Additives (WaterGuard)
WR550	Code of Federal Regulations Title 21 (WaterGuard)
WR576	Acute Oral Toxicity Study In Mice (OECD 423) (WaterGuard)
WR577	Skin Irritation Study In Rabbits (OECD 404) (WaterGuard)
WR578	Acute Eye Irritation Study In Rabbits (OECD 405)(WaterGuard)
WR579	Toxicity to Freshwater Fish (OECD 203)(WaterGuard)
WR580	Toxicity To Daphnia (OECD 202) (WaterGuard)
WR581	Toxicity To Soil Micro Organisms (OECD 216) (WaterGuard)
WR582	Algae Growth Inhibition Study (OECD 201) (WaterGuard)
WR583	Fish Reproduction Study (OECD 209) (WaterGuard)

### KEY POINTS

Many studies have been undertaken on the toxicity of silicones over the past 50 years, and they confirm that they do not have an impact on humans or on the environment.

Many studies have also been undertaken on Aquatain AMF and WaterGuard (a product with a similar formulation to Aquatain AMF) and no concerns have been identified whatsoever.

Both Aquatain AMF and WaterGuard have been certified for application to drinking water in the US, after extensive toxicology testing.

## SECTION 5: EFFICACY REPORTS

R300	Aquatain AMF Summary Of Efficacy Trials
R305	Australia Lab Trials
R310	Netherlands Lab Trials
R315	Singapore Lab Trials
R320	Sri Lanka Field Trials
R322	Sri Lanka Peradeniya Uni Field Trials
R323	Thailand Field Trials
R324	Pakistan Lab Trial
R325	Uganda Lab And Field Trials
R330	Jamaica Lab And Field Trials
R340	Australia Field Trials
R351	Argentina Lab Trials
R352	Venezuela Lab Trials
R365	Kenya Field Trials
R366	Kenya Field Trials (LSHTM)
R380	South Africa Lab Trials
R385	Cuba Field Trials
R395	Greece Field Trials
R396	Italy Field Trials (1)
R397	Italy Field Trials (2)
R399	Protocol For Aquatain AMF Trials On Container Breeding Mosquitoes

### KEY POINTS

Independent trials in many parts of the world have all confirmed the efficacy of Aquatain AMF on different mosquito species.

Pupae of all species are killed very quickly (within about 2 hours).

Larvae of all species are also killed, but the timeframe is longer for some species than others. However, the end result is the same.

Aquatain AMF also impacts on the egg laying characteristics of female mosquitoes: in those trials where this aspect was monitored, no eggs or egg rafts were laid on the treated surface.

## SECTION 6: COMPARISONS

C105	Aquatain AMF vs Agnique MMF
C110	Aquatain AMF vs Bti
C120	Aquatain AMF vs Larvicide Oil
C130	Aquatain AMF vs Methoprene
C140	Aquatain AMF vs Chemical Larvicides

### KEY POINTS

Comparisons between Aquatain AMF and other commonly used larvicides show that Aquatain AMF has many advantages over each of these products.

## SECTION 7: REGISTRATION INFORMATION

Australasia	R705	Australia Approval
	R706	Current Australian Approval to June 2017
	R710	Free Sale Certificate Australia
	R715	New Zealand Approval
	R716	Fiji Approval
Asia	R720	Singapore Approval
	R725	Malaysia Approval
	R726	Indonesia Approval
	R728	Hong Kong Approval
	R730	Sri Lanka Approval
	R731	Thailand Approval
The Americas	R735	Jamaica Approval
	R736	Cuba Approval
	R740	Mexico Approval
	R741	Venezuela Approval
	R780	Brazil Approval
	R760	Barbados Approval
	R764	Cost Rica Approval
	R765	Guatemala Approval
Africa	R745	Uganda Approval
	R746	Ghana Approval
	R785	African SAHEL Countries Approval (9 countries)

### KEY POINTS

Aquatain AMF is approved for sale in more than 50 countries, and more approvals are pending.

Many countries – including the European Union - have exempted it from registration, as it does not contain any toxic chemicals.