



***WaterGuard***  
*Liquid blanket to save water*

## LIST OF AVAILABLE DOCUMENTS

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WaterGuard is a unique silicone-based liquid which spreads across the surface of reservoirs, forming a very thin film and reducing evaporation.

WaterGuard was previously known as Aquatain, but its name has been changed to avoid confusion with Aquatain AMF – our mosquito control product.

This document provides a list of the supporting papers which are available in connection with the product. Some of the papers relate to silicones; some relate to Aquatain; and some relate to WaterGuard.

The reports are available on request.

## LIST OF WATERGUARD DOCUMENTS

### SECTION 1: CHEMISTRY

WR415	Overview Of Silicones
WR401	Chemical Characteristics Of Silicones
WR403	Summary Of Evaluations Of PDMS By International Agencies
WR410	MSDS For Dow Corning PDMS Silicone
WR405	SDS For WaterGuard

#### KEY POINTS

Silicones 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.

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

### SECTION 2: ENVIRONMENTAL ASPECTS

WR105	Environmental Fate And Effects of PDMS
WR115	Fate And Effects of PDMS In Marine Environments
WR125	Water Quality Report Van De Graaff
WR135	Degradation of Silicone Polymers In Nature
WR140	Polydimethylsiloxane Does Not Bioaccumulate
WR145	Biodegradability And Water Quality Study

#### 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 3: TOXICITY

WR535	PDMS As A Food Additive
WR515	JACC Toxicity Report On PDMS
WR520	ERMA NZ Toxicology Review of PDMS
WR525	PDMS Chronic Toxicity Study In Rats
WR540	General Standards For Food Additives
WR550	Code of Federal Regulations Title 21
WR576	Acute Oral Toxicity Study In Mice (OECD 423)
WR577	Skin Irritation Study In Rabbits (OECD 404)
WR578	Acute Eye Irritation Study In Rabbits (OECD 405)
WR579	Toxicity to Freshwater Fish (OECD 203)
WR580	Toxicity To Daphnia (OECD 202)
WR581	Toxicity To Soil Micro Organisms (OECD 216)
WR582	Algae Growth Inhibition Study (OECD 201)
WR583	Fish Reproduction Study (OECD 209)
WR590	NSF Certification

### KEY POINTS

Many studies have been undertaken on the toxicity of silicones over the past 50 years, and they confirm that there are no significant concerns.

Several studies have also been undertaken on WaterGuard itself, confirming the non-toxicity of the product.

And for further reassurance ....WaterGuard is certified for application to drinking water in the US by NSF International – the world’s leading certification organisation.

## SECTION 4: EFFICACY

WR305	Barona Creek Evaporation Trials
WR310	Sycuan Golf Resort Evaporation Trials
WR315	Tarcoola Evaporation Trials
WR320	Lab Evaporation Study

### KEY POINTS

Trials have confirmed the effectiveness of Aquatain (now WaterGuard) in reducing evaporation by 50% or more.

## SECTION 5: AUSTRALIAN CREDENTIALS

WR605	Australian Certificate Of Free Sale
WR610	Australian Certificate Of Manufacture

### KEY POINTS

The documents confirm that WaterGuard is manufactured and sold in Australia in compliance with all statutory requirements.

## SECTION 6: OTHER

WR380	WaterGuard Ready Reckoner
WR381	Methods of Applying WaterGuard
WR382	Measuring The Evaporation Savings From WaterGuard
WR385	Evaporation Vs Daily Temperature

### KEY POINTS

WaterGuard is a very viable product when its cost is compared to the evaporation savings.