

# MATERIAL SAFETY DATA SHEET (MSDS) / (SDS)

## WATERGUARD LIQUID ANTI-EVAPORATION FILM Material Safety Data Sheet

### Aquatic Technologies

41 Yazaki Way, Carrum Downs  
Vic, Australia, 3201

P: 0409 180 707

www.aquatic.net.au



AQUATIC  
TECHNOLOGIES

#### 1.0 IDENTIFICATION

- 1.1 Product Name:** WATERGUARD  
**1.2 Recommended Use:** Liquid anti-evaporation film.

#### 2.0 HAZARD IDENTIFICATION

- 2.1 Hazard Classification:** Non-Hazardous Substance. Non-Dangerous Goods.  
**2.2 Risk Phrase(s):** Not hazardous.  
**2.3 Safety Phrase(s):** Avoid contact with eyes.

#### 3.0 COMPOSITION/INFO. ON INGREDIENTS

- 3.1 Chemical Name:** } Ingredients determined  
**3.2 CAS Number:** } not to be  
**3.3 Proportion %:** } hazardous to 100%

#### 4.0 FIRST AID MEASURES

- 4.1 First Aid Measures:**  
**Ingestion:** Seek medical attention.  
**Eye:** Immediately flush with water.  
**Skin:** No first aid should be needed.  
**Inhalation:** No first aid should be needed.  
**4.2 Medical Attention and Special Treatment Needed:**  
**First Aid Facilities:** None should be required.  
**Comments:** Treat symptomatically.  
**Note to physicians:** Treat symptomatically.

#### 5.0 FIRE FIGHTING MEASURES

- 5.1 Suitable Extinguishing Media:**  
**On large fires:** Use dry chemical, foam or water spray.  
**On small fires:** Use carbon dioxide (CO<sub>2</sub>), dry chemical or water spray. Water can be used to cool fire exposed containers.  
**5.2 Hazards From Combustion Products:**  
Silicon dioxide. Carbon oxides and traces of incompletely burned carbon compounds.  
**5.3 Precautions For Fire Fighters & Special Protective Equipment:**  
Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire-exposed containers cool. Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals.  
**5.4 Hazchem Code:** Not applicable.

#### 6.0 ACCIDENTAL RELEASE MEASURES

- 6.1 Emergency Procedures:** Not applicable.  
**6.2 Methods and Materials for Containment and Clean Up Procedures:**  
Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protective equipment recommendations described in this MSDS. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the clean-up of releases. You will need to determine which laws and regulations are applicable.

#### 7.0 HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:**  
Use with adequate ventilation. Avoid eye contact. Do not take internally. Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.  
**7.2 Conditions for Safe Storage:**  
Use reasonable care and store away from oxidizing materials.

#### 8.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Exposure Standards:**  
**Ingredients - Exposure Limited:** None known.  
**8.2 Engineering Controls:**  
**Local Ventilation:** None should be needed.  
**General Ventilation:** Recommended.  
**8.3 Personal Protective Equipment:**  
**Respiratory:** No respiratory protection should be needed.  
**Suitable Respirator:** None should be needed.  
**Hand:** No special protection needed.  
**Eye:** Use proper protection-safety glasses as a minimum.  
**Skin:** Washing at mealtime and end of shift is adequate.

#### 9.0 PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Physical Form:** Liquid  
**9.2 Colour:** Almost clear  
**9.3 Odour:** Slight odour  
**9.4 Vapour Pressure @ 25°C:** Not determined.  
**9.5 Vapour Density (air=1):** Not determined.  
**9.6 Boiling Point:** > 65 °C  
**9.7 Melting Point:** Not determined.  
**9.8 Solubility in Water:** Insoluble.  
**9.9 Specific Gravity @ 25°C:** 0.97  
**9.10 Flash Point:** > 101.1 °C (Closed Cup)  
**9.11 Upper Flammability Limit:** Not determined.  
**9.12 Lower Flammability Limit:** Not determined.  
**9.13 Autoignition Temperature:** Not determined.  
**9.14 Viscosity:** 100 cSt

#### 10.0 STABILITY AND REACTIVITY

- 10.1 Chemical Stability:** Colourless  
**10.2 Hazardous Polymerization:**  
Hazardous polymerization will not occur  
**10.3 Conditions to avoid:** None  
**10.4 Materials to avoid:** Oxidising material can cause a reaction.

#### 11.0 TOXICOLOGICAL INFORMATION

- 11.1 Component Toxicology Information:**  
No known applicable information.  
**11.2 Special Hazard Information on Components:**  
No known applicable information.

# MATERIAL SAFETY DATA SHEET (MSDS) / (SDS)

## 12.0 ECOLOGICAL INFORMATION

**12.1 Air** This product is a high molecular weight liquid polymer which has a very low vapour pressure (<1mm Hg). As a result it is unlikely to become an atmospheric contaminant unless generated as an aerosol.

### 12.2 Water

This product has a very low water solubility (<100 ppb). As it has a specific gravity of < 1, if discharged to water, it will initially form a surface film. As the product is non volatile and as a high binding affinity for particulate matter, it will adsorb to particulates and sediment out.

### 12.3 Soil

If discharged to surface water, this product will bind to sediment. If discharged in effluent to a waste water treatment plant, the product is removed from the aqueous phase by binding to sewage sludge. If the sewage sludge is subsequently spread on soil, the silicone product is expected to degrade.

### 12.4 Degradation

This product, polydimethylsiloxane, degrades in soil abiotically to form smaller molecules. These in turn are either biodegraded in soil or volatilized into the air where they are broken down in the presence of sunlight. Under appropriate conditions, the ultimate degradation products are inorganic silica, carbon dioxide and water vapour. Due to the very low water solubility of this product, standard OECD protocols for ready and inherent biodegradability are not suitable for measuring the biodegradability of this product. The product is removed > 80% during the sewage treatment process

### 12.5 Toxicity to Water Organisms:

Based on analogy to similar materials this product is expected to exhibit low toxicity to aquatic organisms.

### 12.6 Toxicity to soil organisms:

Experiments show that when sewage sludge containing polydimethylsiloxane is added to soil, it has no effect on soil micro-organisms, earthworms or subsequent crops grown in the soil.

### 12.7 Bioaccumulation:

This product is a liquid and is a high molecular weight polymer. Due to its physical size it is unable to pass through, or be absorbed by biological membranes. This has been confirmed by testing or analogy with similar products.

### Fate and Effects in Waste Water Treatment Plants

This product or similar products has been shown to be non-toxic to sewage sludge bacteria.

Ecotoxicity Classification Criteria

Hazard Parameters (LC50 or EC50)	High	Medium	Low
Acute Aquatic Toxicity (mg/L)	<=1	>1 and <=100	>100
Acute Terrestrial Toxicity	<=100	>100 and <=2000	>2000

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

(This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.)

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Disposal Method:

Dispose of in accordance with local regulations.

### 13.2 Special Precautions for Landfill or Incineration:

None known.

**WATERGUARD**  
**Material Safety Data Sheet**

## 14. TRANSPORT INFORMATION

- 14.1 UN No.:** Not applicable.  
**14.2 Proper Shipping Name:** Not applicable.  
**14.3 Class:** Not applicable.  
**14.4 Packing Group:** Not applicable.  
**14.5 Hazchem Code:** Not applicable.  
**14.6 Sea transport (IMDG)** Not subject to IMDG code.  
**14.7 Air Transport (IATA-DGR)** Not subject to IATA regulations.

## 15. REGULATORY INFORMATION

**15.1 SUSDP Poisons Schedule Number:** None allocated.

### 15.2 Prohibition/Licensing Requirements:

There are no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

### 15.3 Industrial Chemicals (Notification and Assessment) Act 1989:

All ingredients listed or exempt.

### 15.4 Chemical Inventories:

**DSL:** All chemical substances in this material are included on or exempted from the DSL.

**IECSC:** All ingredients listed or exempt.

**EINECS:** All ingredients listed or exempt.

**MITI:** All components are listed on ENCS or its exempt rule.

**KECL:** All ingredients listed, exempt or notified.

**PICCS:** All ingredients listed or exempt.

**TSCA:** All chemical substances in this material are included on or exempted from listing on the TSCA Inventory of Chemical Substances.

- END -

**Aquatic Technologies**  
41 Yazaki Way, Carrum Downs, Vic, Australia, 3201  
P: 0409 180 707 [www.aquatic.net.au](http://www.aquatic.net.au)

