

# Steadfast

## As a Buffer

Many agricultural chemicals degrade rapidly in high pH (alkaline) water. It is very common to have bore water or irrigation canal water with a pH of 8.0 or above. Phosphate insecticides and many other pesticides degrade rapidly when placed in this water. The effect can reduce the activity of pesticides before the spraying operation is completed.

**Steadfast** helps protect your chemical investment through pH adjustment. In most cases **Steadfast** will lower the pH of alkaline water by 2 or more points. Reduction of pH will vary from one water source to another, however **Steadfast** is active enough in most waters to adjust the pH into a safe range.

**Steadfast** does not affect the soluble salt content of the water.

When following label directions, **Steadfast** is more cost effective than other commonly used combination wetter/buffers. *The bottom line is that losses due to alkaline hydrolysis are permanent, irreversible and costly.*

We have compiled the following list of some of the more commonly used pesticides and their susceptibility to alkaline hydrolysis.

| INSECTICIDES                |                           |    |   |
|-----------------------------|---------------------------|----|---|
| Trade Name                  | Chemical / Technical Name | pH | Half Life                                 |
| Bt                          | Bacillus Thuringiensis    |    | Incompatible with Alkaline Solutions      |
| Comite                      | Propargite                | 9  | 24 Hours                                  |
|                             |                           | 6  | 331 Days                                  |
| Profenn / Curacron          | Profenofos                |    | Incompatible with Alkaline Solutions      |
| Decis                       | Decis                     | 8  | 24 Hours                                  |
|                             |                           |    | More stable under acidic conditions       |
| Endosulfan                  | Endosulfan                |    | Undergoes some Hydrolysis                 |
| Folimat                     | Omethoate                 |    | Incompatible with Alkaline solutions      |
| Mitifol, Kelthane           | Dicofol                   | 7  | 15 Minutes                                |
|                             |                           | 6  | Optimum                                   |
|                             |                           | 5  | 21 Days                                   |
| Showdown, Larvin            | Thiodicarb                | 6  | Stable                                    |
| Rogor, Dimethoate           | Dimethoate                | 9  | 48 minutes                                |
|                             |                           | 6  | 12 hours                                  |
|                             |                           | 4  | 21 hours                                  |
| Lorsban, Instinct, Predator | Chlorpyrifos              | 10 | 7 Days                                    |
|                             |                           | 6  | Stable                                    |
| Folidol, Parathion          | Parathion Methyl          | 10 | 6.5 Hours                                 |
|                             |                           | 7  | 28 Days                                   |
|                             |                           | 5  | 160 Days                                  |
| HERBICIDES                  |                           |    |   |
| Arsenal                     | Imazpyr                   | 7  | Stable                                    |
|                             |                           |    | Unstable Under Alkaline Conditions        |
| Atrazine                    | Atrazine                  | 7  | Stable                                    |
| Glyphosate                  | Glyphosate                |    | 3.5 Optimum pH                            |
| Goal                        | Oxyfluorfen               | 7  | Stable                                    |
| Reglone                     | Diquat                    | 7  | Decomposes Rapidly in High pH             |
| Simazine                    | Simazine                  | 7  | Stable Decomposes Rapidly in High pH      |
| Spray Seed                  | Paraquat                  | 7  | Stable Decomposes Rapidly in High pH      |
| GROWTH REGULATORS           |                           |    |   |
| Prep, Ethephon              | Ethephon                  | 3  | Decomposes Rapidly in Alkaline Conditions |

Disclaimer: Growth Agriculture have obtained the information from manufacturers and various technical publications. Growth Agriculture believes that all sources are true and reliable. Information regarding specific chemicals and their pH sensitivities should be confirmed with individual manufacturers.

# Steadfast

## Tank Cleaner

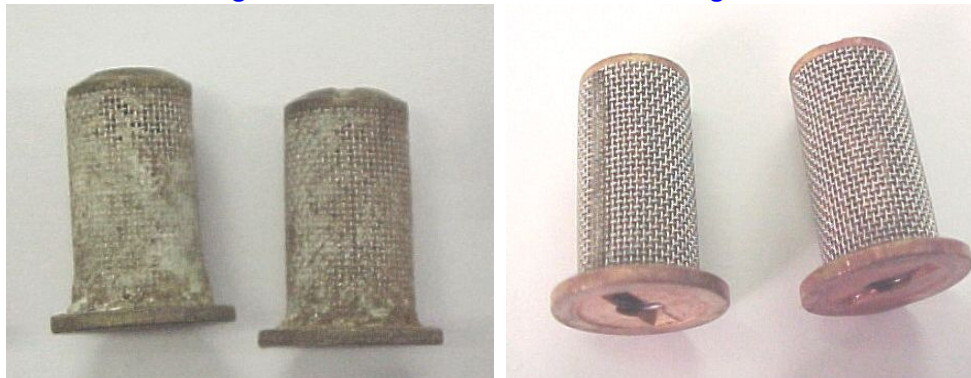
Continued use of **Steadfast** will help to keep spray tanks, nozzles and filters clean and in working order.

**Steadfast** will keep particle residues and rust out of your spray tank to reduce down time when spraying.

Soaking nozzles and in line filters in a solution of **Steadfast** will keep them clean making your spray system more efficient.

Before Cleaning with **Steadfast**

After Cleaning with **Steadfast**



## Spindle Cleaner

The acidic nature of this product and it's unique ability as a wetting agent enable **Steadfast** to be registered as a cotton spindle cleaner.

The rate of **Steadfast** for spindle cleaning is 60mL/100Lt.

**Steadfast** is very price competitive compared to other spindle cleaners.

**Growth Steadfast** is registered with the APVMA.

# STEADFAST

## A Better Wetter

794 g/l alkylaryl polyoxyethylene glycol phosphate ester

### SPREADER – ACTIVATOR – BUFFER

- ✓ Use for Lowering pH in spray tanks to reduce chemical breakdown
- ✓ Assists with Tank Mix Compatibility
- ✓ A Wetting and Spreading Agent
- ✓ Use to Clean Tanks, Lines, Filters & Nozzles
- ✓ Use for Cotton Spindle Cleaning

# GROWTH AG

An Australian Company

## 1800 440 438

Nick Watts  
0428 237 312