
# Product Information Sheet

**Issue Date: 1/09/11**


# DELTA LIPRO 700

**Agriculture Wetting Agent**

## DESCRIPTION

DELTA LIPRO 700 can be used where the addition of a wetter/spreader or self emulsifying oil is required or recommended on the agricultural chemical label. DELTA LIPRO 700 is a clear amber brown liquid with a characteristic odour.

## APPLICATIONS

DELTA LIPRO 700 is a unique multi-purpose product that improves the efficacy of agricultural chemical spray applications by minimising losses and enhancing penetration.

To minimise losses resulting from alkaline hydrolysis and spray droplet drift DELTA LIPRO 700 also enhances penetration of herbicides and foliar fertilizers. Always read the label and use only as directed.

## ADVANTAGES

- Minimises losses resulting from alkaline hydrolysis
- Manages droplet size (registration pending); and
- Improves penetration of herbicides and foliar fertilizers.

## BENEFITS

- Enhances the performance of certain insecticides(e.g dimethoate) and fungicides (e.g iprodione) in alkaline conditions;
- Produces fewer driftable spray droplets, reducing the risk of off-target movement (registration pending);
- Enhances performance of weak acid herbicides including 2,4-D and glyphosate in non-selective situations; and
- Makes foliar nutrients such as zinc, manganese, nitrogen, potassium, and phosphorus more effective by enhancing uptake through leaf cuticles.



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**BACKGROUND**

**BUFFERING:**
The use of Delta Lipro 700 is very important to combat the negative influence of adverse water conditions and alkaline hydrolysis.
Rainwater is "soft ", or typically has hardness levels of < 100 ppm. Hardness is due to Ca++ or Mg++ ions which make the water " reactive " and account for the phenomenon known as alkaline hydrolysis.
Many herbicides are Esters or salts and are unstable in the presence of water hardness. Bore water or creek water can typically have hardness levels of > 400 ppm, which makes the resultant Ph alkaline. If a neutral wetter such as Deltawet 1000 is used then the herbicide may well react with the hard water salts and degrade the performance. Glyphosate is very susceptible to degradation if the water remains untreated.
Delta Lipro 700 is buffered with propionic acid to ensure the water is treated in solution to neutralize the influence of the hard water ions and render the herbicide solution to the optimal Ph for ideal herbicide performance. To reduce the influence of alkaline hydrolysis, the Ph of the solution must be less than 7.0, (neutral). Using Delta Lipro 700 ensures alkaline water is buffered to neutrality.

**PENETRATION :**
Many waxy weeds will not allow the herbicide solution to penetrate the capillaries of the plant to provide optimum kill rate. The solution simply runs off the plant surface without penetrating the foliage. It is important to have the correct surfactant (surface active agent) to ensure the herbicide solution has adequate contact time to allow the active ingredients to work. One way to achieve this is to have a solution which is "sticky", and this attribute is provided by the inclusion of hydrolysed canola oil in the Delta Lipro 700 formulation. The additional contact time provided by the oiliness of the Lipro 700 mixture ensures cling to the foliage and penetration so that the active is taken up in the capillaries quickly and effectively.

**EMULSION STABILITY**
Many tank mixes of herbicides are made up early in the morning when the water temperature can be very low; in some cases close to freezing. Throughout the course of the day, the solution may reach temperatures of up to 45 degrees Centigrade. The unused solution may then sit in the tank overnight subject to the same extremes in temperature. It is essential in these situations that the solution does not layer or separate. Delta Lipro 700 has been formulated to provide maximum emulsion stability through a number of freeze thaw cycles, ensuring the herbicide solution remains consistent throughout its depth, so the active is even in distribution through the spraying program.
This is achieved by incorporating a surfactant blend with the right hydrophilic – lipophilic balance for the varied water and temperature conditions the product solutions may encounter. This surfactant blend also serves to optimize particle size thereby reducing the likelihood of excessive spray drift.



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TASMAN CHEMICALS

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## DIRECTIONS

### Mixing

Half fill the spray tank with water and commence agitation. Add the required quantity of DELTA LIPRO 700 then add the recommended quantity of herbicide, insecticide or foliar fertilizer. Continue agitation while topping up the tank and during spraying.

### Penetration and Wetter

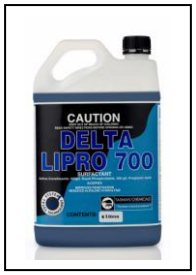
DELTA LIPRO 700 is a multipurpose adjuvant which is composed of natural surfactants and penetrants derived from soyabean oils. These are combined with propionic acid to produce a penetrant, surfactant, acidifier for use with herbicides, insecticides, fungicides, foliar fertilizers and plant growth regulators. The unique properties of DELTA LIPRO 700 enhance the uptake of many systemic herbicides, allowing them to effectively penetrate into leaves, without causing damage to non-target crop plants.

### Acidification

DELTA LIPRO 700 also acts as an acidifier which will reduce pH, in most causes between 4 and 5. This reduces losses due to alkaline hydrolysis and also assists with the update of weak acid herbicides.

### Droplet Size Management

Delta DELTA LIPRO 700 will reduce the number of fine droplets (<150 micron) produced by CP and flat fan nozzles, without increasing the number of large spray droplets (>400 micron). This is a useful feature to help reduce off-target movement of the pesticide being used.






The Product Information Sheet supersedes all previous issues for this product. Information contained herein is offered in good faith as being true and accurate to the best of our knowledge, but as the conditions of use are beyond our control, no guarantees are either stated or implied.

Where health or safety data given discloses a risk to the user or the environment, it is the responsibility of the purchaser to pass on the information to employees who may be using the product, ensuring that adequate safety procedures are used, including good industrial hygiene.

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**DIRECTIONS FOR USE**

Not for use with sulfonylurea herbicides

| Situation | Application Rate | Critical comments |
|---|---|---|
| **Weedkilling Sprays** | | |
| General use | 100-200ml / 100L | Delta LIPRO 700 can be used where the addition of a wetter/spreader is required. |
| Hairy or waxy leaves eg Nutgrass<br>Hard to wet leaves eg Couch | 300-500ml / 100 L | Delta LIPRO 700 improves penetration on difficult to wet leaves and in tall dense vegetation. |
| Very cold conditions<br>Dry dusty situation | 500ml / 100 L | The higher rate of Delta LIPRO 700 assists penetration in difficult situations. |
| **Glyphosate, Paraquat and 2,4-D** | 250-500ml / 100L | Delta LIPRO 700 is particularly beneficial with these herbicides to ensure even coverage of plant foliage and to increase absorption. |
| **High pH or Hard Water**<br>To reduce the loss of efficacy caused by high pH or hard water | 100ml / 100L | Addition of Delta LIPRO 700 to the spray tank will adjust the pH to 3.5-5 which will overcome the degrading effect of alkaline hydolysis caused by water with a high pH. Pesticide breakdown will be reduced and spray activity will be maintained. |

**PACKAGING**

- 5lt Polyethylene Bottles
- 10lt Polyethylene Bottles
- 20lt Polyethylene Drums
- 200lt Polyethylene Drums



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