

Mangasol

Manganese sulphate solution

Mangasol is ideal for correcting or preventing manganese deficiency in grain and horticultural crops, pastures and vines.

It is a highly available liquid form of manganese and sulphur.

A clear to light pink liquid, Mangasol is highly acidic with a pH of 2.5 – 3.5.

Mangasol can be applied alone or mixed with other fertilisers (refer to Compatibility section).

Mangasol is a Hazardous Substance. Refer to the MSDS for details.

ANALYSIS (weight/volume)

17.3 % Manganese (Mn) w/v	(173 g/L Mn)
10.1 % Sulphate Sulphur (S) w/v	(101 g/L S)

SPECIFIC GRAVITY

Mangasol has a specific gravity of 1.42.

This gives Mangasol an analysis on a weight/weight basis of:

12.2 % Manganese (Mn) w/w	(122 g/kg Mn)
7.1 % Sulphur (S) w/w	(71 g/kg S)

“SALTING OUT” AT LOW TEMPERATURE

Most liquids have a ‘salt out’ temperature. This is the temperature at which crystal precipitation and growth occurs because the solution is over-saturated and the water can no longer keep the salts in a dissolved state. With Mangasol this ‘salt out’ temperature is at or below 5°C. If other soluble salts or solutions containing salts are added to Mangasol, the ‘salt out’ temperature will change.

DIRECTIONS FOR USE

Foliar sprays are the preferred way to apply manganese in most crops.

If applied to the soil, manganese can be rapidly converted to forms unavailable to plants.

Apply Mangasol to new growth or early in the life of the crop.

Mangasol can be applied by aircraft, misting equipment and by boom spray. The dilution rate is dependent on the type of equipment used.

If using low volume spray equipment, avoid hot weather and ensure that the crop is not under moisture stress. Spray Mangasol early in the morning or late in the afternoon.

There are limits to the amount of Mangasol that can be applied in foliar sprays without burning the leaves. Crops and varieties vary in their susceptibility to leaf burn. Use the following dilution rates as a guide:

- Vines and citrus – 2 L/1000 L water/ha
- Cereals, legume seed production, grain legumes, summer fodder crops, oilseed crops – 6.5 L/60 - 100 L water/ha
- Stone fruits, vegetables – 5 L/1000 L water/ha

In cereals, apply from 5 leaf to fully tillered stage.

For maximum absorption, apply when rain is not expected for at least four hours. Adding a wetting agent will improve coverage and absorption.

For aerial sprays, apply the required quantity of Mangasol with 10 to 25 litres of water per hectare.

For more information on using Mangasol in specific crops, see the Crop Guides section.

COMPATIBILITY

Mangasol is compatible with Topfoliar, EASY ATS, Coppersol and Zincsol.

Dilute EASY U Sol, EASY N and EASY NS with an equal quantity of water before mixing with Mangasol.

Mangasol is incompatible and should not be mixed with EASY NP, EASY NP + Zn, EASY PK, EASY NPK 27, EASY KS, or EASY Cal.

STORAGE AND CARE OF EQUIPMENT

Store in a cool place, away from direct sunlight.

Mangasol is corrosive to many metals.

Appropriate materials for storing Mangasol include High-Density Polyethylene (HDPE), stainless steel and fibreglass.

Do not store Mangasol in tanks of mild steel, aluminium, brass or copper alloys, concrete or galvanised steel.

Flush application and fertigation equipment after use with water only.

Where applied through fixed irrigation lines, discontinue use towards the end of the shift to flush fertiliser from the lines and off crop foliage. This minimises corrosion and the risk of leaf burn.

Refer to the Handling, Storage and Transport section of the EASY Liquids manual for further details, including appropriate materials for pumps, pipes, plumbing, valves and fittings.

SAFETY DIRECTIONS

Avoid contact with eyes or skin.

Avoid inhaling mist.

Wash hands after use.

Refer to the Mangasol MSDS (Material Safety Data Sheet) for more specific instructions.

WARNING

Before using fertiliser seek appropriate agronomic advice. Fertiliser may burn and/or damage crop roots or foliage. Foliar burn to the leaves, fruit or other plant parts is most likely to occur when different products are mixed and sprayed together, the water is of poor quality, or the spray is applied under hot dry conditions, eg. in the heat of the day. Because climatic and soil conditions, application methods, irrigation and agricultural practices are beyond the control of Incitec Pivot Limited and cannot be foreseen, Incitec Pivot Limited accepts no responsibility whatsoever for any commercial damage, loss or other result following the use of this product whether used in accordance with directions or not, subject to any overriding statutory provision and provided that such liability under those provisions shall be limited to the replacement of the goods as supplied or the rendering again of the services that are provided. The buyer accepts and uses this product subject to these conditions.

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