

Neem Oil Emulsifier - A Natural Pesticide

Neem Oil is a vegetable oil pressed from the fruits and seeds of the Neem tree, *Azadirachta Indica*, and contains a natural Insecticide, acaricide and fungicide called azadirachtin, a complex triterpenoid. It is not strictly a juvenile hormone mimic but has a more complex spectrum of activity. It acts as a potent antifeedant and also affects insect metamorphosis and development. In addition to azadirachtin, neem extracts contain compounds with antifeedant, repellency, growth regulator and oviposition deterrent activities and extracts of Neem seeds have been registered as pesticides for use in controlling a number of insects affecting ornamentals and horticultural crops. Neem Oil is not known to be harmful to mammals, birds and earthworms. Neem Oil works from inside the plant as it is a systemic insecticide, which means that in addition to foliar spraying a solution can be poured onto the soil, or container compost and the plants will absorb it, they take it up into their tissue, and it works from the inside.

Neem Oil is a dark liquid in its normal state and to convert the form into a sprayable liquid, Lankem has developed an emulsifier system that produces a nice free flowing emulsion in an aqueous environment.

Formulation

Additives	%
Neem Oil	5.0
Agrosurf NOE	1.0
Water	94.0

This is a typical example: The Neem oil levels can be increased but you must maintain the 5:1 ratio.

Process

The Neem Oil levels can be increased but the ratio of oil to emulsifier must be maintained at 5:1 ratio. As this is an oil in water emulsion the neem oil level must always be less than the water level. Going above will swap the emulsion to a water in oil and will drastically change the emulsifier performance.

Mix the oil and Agrosurf NOE together, then add to water and mix. Low shear is sufficient but high shear will help to increase the stability and lower the particle size.

Specification

Appearance at 25°C:	Clear amber liquid
Water content %:	3 max
pH (1% Aqueous):	5.0 – 8.0
Saponification Value:	90 - 105

Typical Properties

Composition:	Nonionic emulsifiers
Odour:	Characteristic
Specific Gravity at 25°C:	1.028
Viscosity at 25°C (cP):	577

Typical properties are based on our own measurements and do not constitute part of the sales specification.

Packaging and Storage

Agrosurf NOE can be supplied in bulk road tankers, IBC's and 200kg nett drums.

Stainless steel, polyethylene or glass lined equipment is necessary for the storage of Agrosurf NOE in order to prevent corrosion and subsequent contamination. This material can separate on standing and at low temperatures. May require agitation and warming prior to use.

Regulatory Information

Please refer to Safety Data Sheet.

All information, recommendations and suggestions appearing in the literature concerning the use of the product are based upon tests and data believed to be reliable. However it is the users responsibility to determine the suitability for their own use of the products described here. For non English datasheets translation has been carried out using translation software, Lankem accepts no liability due to errors that occur during translation. Typical properties are based on our own measurements and do not constitute part of the sales specification.