# **Voltage MSO Spray**

## Adjuvant

An esterified oil based Adjuvant with non-ionic surfactants to assist the effectiveness of Herbicides and other agricultural Chemicals



#### **Product Overview**

Voltage MSO is a vegetable oil concentrate based adjuvant and non-ionic surfactant blend specifically designed to increase penetration through waxy cuticles, reducing spray droplet evaporation rates and wetting and spreading properties.

Voltage MSO Spray Adjuvant contains 700g/L Ethyl and Methyl esters of Vegetable Oil and 116g/L Non Ionic Surfactants.

It is registered for use with a broad range of knockdown, post emergent and residual herbicides. Voltage MSO Spray Adjuvant may be used wherever an oil-based adjuvant is recommended on the label of agricultural chemicals, unless esterified seed-oil adjuvants are specifically excluded on the product's label.

#### **Key Features**

- > An esterified oil formulation, which maximises penetration through waxy cuticles and mature weeds.
- > An adjuvant offering dual modes of action. Contains both Non-Ionic surfactants and Vegetable Oils in the one product.
- > Increases wetting, spreading and coverage of spray droplets.
- > Significantly enhances droplet lifetime management to enhance pesticide uptake.
- > Maximises Herbicide and Plant Protection product performance.
- > Non Scheduled safer to handle and use.
- > Available in multiple pack sizes 10L and 20L.

#### **Mode of Action**

Voltage MSO Spray Adjuvant contains 700g/L Ethyl and Methyl esters of Vegetable Oil and 116g/L Non Ionic Surfactants.

Non-lonic surfactants work by lowering the surface tension of droplets in spray solution. They aid by spreading the spray solution more evenly over the leaf surface area, ensuring better coverage of the plant protection product and as a result, enhancing uptake, improving deposition and maximizing overall performance.

The vegetable oil is an esterified spraying oil which significantly enhances chemical adhesion to the plant leaf, whilst improving droplet lifetime, deposition and retention properties. The vegetable oil being esterified in the product is very important, as this provides the material with its excellent penetrative properties, allowing it to pass through waxy surfaces or difficult to kill and mature weeds to maximise herbicide performance.



### Voltage MSO Spray Adjuvant



**Voltage MSO Spray –** Use Rates & Label Recommendations APPLICATION **HERBICIDES CRITICAL COMMENTS** RATE/100 L Atrazine 0.5 - 1.0 LFor post-emergence use with TT canola. Acifluorfen (224 g/L) 1.0 L Recommended for use in Mung Beans only. Propaquizafop (100 g/L) 500 mL Voltage MSO Spray Adjuvant is recommended for all applications where Propaguizafop is used. 1.0 L Imazapic (240g/L product only) Recommended for post-emergent use in Peanuts only. 1.0 L lodosulfuron-methyl-sodium (100 Voltage MSO Spray Adjuvant is recommended for all applications where g/L) + Mefenpyr-diethyl (300 g/L) lodosulfuron-methyl-sodium + mefenpyr-diethyl is used. Imazethapyr (525 g/L) + Imazapyr 1.0 L Voltage MSO Spray Adjuvant is recommended for all applications where Imazethapyr + Imazapyr is used. (175 g/L) Imazapic (22 g/L) + Imazapyr 500 mL Voltage MSO Spray Adjuvant is recommended for all applications where Imazapic + Imazapyr + MCPA is used. (7.3 g/L) + MCPA (288.5 g/L)Butafenacil (200 g/L) + Triasulfuron 500 mL Voltage MSO Spray Adjuvant is recommended for all applications where (520 g/L) Butafenacil + Triasulfuron is used. Clethodim (200 g/L) + Haloxyfop 1.0 L Voltage MSO Spray Adjuvant is recommended for all applications where (48 g/L) present as the Haloxyfop-R Clethodim + Haloxyfop are used. Methyl Ester Imazapic (525 g/L) + Imazapyr 500 mL Voltage MSO Spray Adjuvant is recommended for all applications where (175 g/L)Imazapic + Imazapyr is used. There are some applications where Voltage MSO Spray Adjuvant should Imazamox WG (700 g/kg) 500 mL not be used with Imazamox WG. Refer Imazamox WG label. Clethodim (240 g/L) 1.0 L Refer to Clethodim label. 500 mL Propaquizafop (100 g/L) Refer to Propaquizafop label. Imazethapyr WG (700 g/kg) 500 mL For post-emergent use. Refer to pesticide label. Quizalofop-P-Ethyl (200 g/L) 1.0 L Voltage MSO Spray Adjuvant is recommended for all applications where Quizalofop-P-Ethyl is used. Cloquintocet-Mexyl (60 g/L) + 500 mL Do not use Voltage MSO Spray Adjuvant when using Cloquintocet-Clodinafop-Propargyl (240 g/L) Mexyl + Clodinafop-Propargyl in mixtures with MCPA + Diflufenican or Bromoxynil + Diflufenican. Where water volumes less than 50 L/ha are used, do not use less than 250 mL/ha of Voltage MSO Spray Adjuvant. Glyphosate (225 g/L) + Butafenacil 500 mL Voltage MSO Spray Adjuvant is recommended for all applications where

Glyphosate + Butafenacil is used.

Use of Voltage MSO Spray Adjuvant with Herbicides, Insecticides, Fungicides Defoliants and Desiccants: Voltage MSO Spray Adjuvant may be used wherever an oil-based adjuvant is recommended on the label of agricultural chemicals, unless esterified seed-oil adjuvants are specifically excluded. The recommended usage rate of Voltage MSO Spray Adjuvant for all such applications should be approximately 0.5 – 1.0 L/ha and should not be less than 0.2 L/ha (see table below).

(5 g/L)

Spray Application	Spray Volume per hectare	Rate Voltage MSO Spray L/100L of spray volume
Low Volume	10 – 20 L/ha	2.0 – 5.0 L
Broadacre Boom Spray	50 - 100 L/ha	0.5 – 2.0 L
High Volume	200 – 500 L/ha	0.2 – 0.5 L
When spraying at volumes other than those shown above, apply Voltage MSO Spray Adjuvant at approximately 0.5 – 1.0 L/ha.		



