





**INNICTIS CROPCARE® PRODUCTS CONTAINING 2, 4-D**

Herbicides	AI	Product Description	Pound of Acid/ Gallon	Rate to achieve 0.5 lb acid/A
<b>GRAVITAS®</b>	Solventless 2, 4-D Ester	Gravitas is a 5.5 lb solventless 2,4-D ester herbicide providing low-volatility properties. Gravitas is highly concentrated allowing for a lower use rate with preferred amount of a.i. The solventless formulations allows for easy tankmixing particularly with liquid fertilizers.	5.5 lb/gal	12 oz/A
<b>HAVOC® AMINE</b>	2, 4-D Amine	Havoc Amine is a broad spectrum, systemic herbicide for control of broadleaf weeds. Havoc Amine contains 2, 4-D amine which provides superior control with low volatility properties. Flexibility in burndown, with favorable rotation intervals and various in-crop application opportunities makes Havoc Amine a great option for any cropping system.	3.8 lb/gal	1 pint/A
<b>HAVOC® LV-FOUR</b>	2, 4-D Ester	Havoc LV Four is a broad spectrum, systemic herbicide for control of broadleaf weeds. Havoc LV Four contains 2,4-D ester which provides superior control over other formulations of 2,4-D. Flexibility in burndown, with favorable rotation intervals and various in-crop application opportunities makes Havoc LV Four a great option for any cropping system.	3.8 lb/gal	1 pint/A
<b>HAVOC® LV-SIX</b>	2, 4-D Ester	Havoc LV Six is a broad spectrum, systemic herbicide for control of broadleaf weeds. Havoc LV Six contains 2,4-D ester which provides superior control over other formulations of 2,4-D. Flexibility in burndown, with favorable rotation intervals and various in-crop application opportunities makes Havoc LV Six a great option for any cropping system.	5.5 lb/gal	12 oz/A

**INNICTIS CROPCARE® ADJUVANT RECOMMENDATIONS**

Adjuvants	Product Properties	Product Description	Rate	
<b>AVIATOR™</b> 	Acidifier, Humectant, Penetrant, Spreader, Sticker, Water Conditioner	Aviator is a non-ionic surfactant, water conditioning agent, and acidifier. Aviator enhances coverage, adhesion, and penetration of spray solutions while protecting herbicides from hard water tie-up.	0.25% v/v	
<b>COVERT™</b> 	Deposition, Drift Reduction, Humectant, Spreader, Water Conditioner	Covert is a non-ionic surfactant that combines deposition and drift reduction with water conditioning. This combination limits off-target movement, allows for maximum leaf surface coverage, and protects herbicide tie-up from hard water ions.	0.5 % v/v	
<b>VALKARIE™</b> 	Deposition, Penetrant, Spreader, Sticker	Valkarie is a NPE free non-ionic surfactant, formulated to improve deposition, spreading, and adhesion of a spray solution. Valkarie is able to soften a leaf's waxy cuticle, leading to increased penetration and movement to the site of action.	0.25% v/v	
<b>VIXEN® AC-L</b>	Water Conditioner	A blend of highly effective water conditioning agents that are specifically designed to minimize the interaction between hard water ions and active ingredients	0.5-2 qt/100 gal	



## 2, 4-D PRODUCTS



### WHAT'S THE DIFFERENCE BETWEEN AN ESTER AND AMINE?

2,4-D typically comes in two formulations: Amines or Esters. Amines have lower vapor pressure which makes them inherently less volatile than esters and are preferred in certain crop environments and locations. Esters are more effective on penetrating the cuticle of the leaf surface making them more effective.

### WHAT IS A SOLVENTLESS ESTER?

The solvents in 2, 4-D are primarily oil based. Solventless 2, 4-D ester products are water based which may be safer on labeled crops, mix better with liquid fertilizer and other tank mixes and are less volatile. 2,4-D solventless ester products, like Gravitas®, have a great fit in sensitive areas or near susceptible crops when you want the performance of an ester with improved crop safety and lower volatility.

### HOW DOES 2, 4-D WORK?

2,4-D is a phenoxy chemical and is classified as a group four mode of action synthetic auxin herbicide. 2, 4-D is a systemic herbicide that moves through the entire weed once it is absorbed. The expected symptomology of the target pest would be twisting and turning of plant tissue and essentially death by irregular growth.