

## **EXXATE™** Acetate Ester- Inert Carriers for Pesticides

Hallstar is a designer and manufacturer of specialty ester chemistries. The EXXATE™ branded products are high purity acetate esters, used as carriers for active ingredients in a range of liquid delivery systems. These specialty acetate esters have been produced by Hallstar for over a decade.

Hallstar's Acetate Esters are miscible with most commonly used petroleum solvents and easily emulsified in water based formulations. These carriers are powerful solubilizers for a range of actives. The esters are synthesized predominantly from branched aliphatic, primary alcohols in the C6 to C13 carbon range.

## **Key Attributes:**

- Versatile Inert Carriers for Liquid Formulations
- High Solvency, Higher polarity, stronger bonding than Aromatics
- > Low Water Miscibility, good carriers in Liquid Delivery formulations
- Defined evaporation rates for Volatility Control
- Low Temperature Properties with pour points below -70°C
- Low Phytotoxicity
- Highly Emulsifiable
- Low surface tension, promotes spreading and wetting
- ➤ EXXATE<sup>TM</sup> 1000: EPA 4b Inert, allows for Organic Farming

## Selection Guide:

	HALLSTAR <b>Products</b>					
	Acetate	Acetate	Exxate™	Exxate™	Exxate™	Exxate™
	600	700	800	900	1000	1300
	C6 Ac	C7 Ac	C8 Ac	C9 Ac	C10 Ac	C13 Ac
Molecular Weight	144	158	172	186	200	242
Specific Gravity	0.874	0.874	0.875	0.873	0.873	0.879
Evaporation Rate	0.11	0.05	0.033	0.012	0.006	0.001
Vapor Pressure(20C)	1.4	0.8	0.75	0.24	0.09	0.03
Surface Tension	25	26	26	27	27.5	28
Water Sol. (% wt)						
Ester In Water	0.02	0.01	0.02	0.02	0	0
Water in Ester	0.66	0.58	0.35	0.29	0.26	0.2
Electrical Resist.(MΩ)	high	>20	>20	>20	>20	>20
	Sweet	Sweet				Nearly
Odor	Ester	Ester	Mild Ester	Mild Ester	Mild Ester	Odorless
HAPS Free	Yes	Yes	Yes	Yes	Yes	Yes
Solubilty(Hansen)						
Dispersion	7.8	4.5	7.8	7.9	7.9	8.2
Polar	1.4	1.9	1.2	1.0	0.8	0.4
H-Bond	3.0	1.5	2.4	2.4	2.0	1.4