Characteristics of Spray Adjuvants

Manufacture / Product	Type[1]	Use[2]	Wetting / Spreader	Sticker	Activator Penetrant	Acidifier / Buffer	Drift Retardant	Foam Retardant
Agriliance, LLC., P.O. Box 64089, St. Paul, MN 55164-0089								
Active Plus	NIS	I,F,H,N	X		X			
AD 100	EO	H	X		X			
Alliance	AMS+NIS	H	X		X			X
AMS Plus	AMS+ NIS	H	X		X			X
Ballast	PA	I,F,H				X		
Brace	PVP	I,F,H,S					X	
Complex	NIS	I,F,H	X	X				
Corral AMS Dry	AMS+PVP+SiB	H			X	X	X	X
Corral AMS Liquid	AMS+PVP+SiB	H			X	X	X	
Destiny	EO	H,I	X		X			
Fast Break	SiB	I,F,H						X
Hi-Per-Oil	EO	H	X		X			
Newtone	AMS+NIS	H	X		X	X		
Placement	CIS	H,I,F	X		X		X	
Placement Propak	AMS+CIS	H	X		X		X	
Preference	NIS	I,F,H	X		X			X
Prime Oil	EO	H,I,F,N	X	X	X			
Prime Oil EV	EO	H,I,F,N	X	X	X			
Rivet	EO	H	X		X			
Silken	OSI	H	X		X			
Spray Booster S	NIS	I,F,H,N	X		X			
Top Surf	NIS	I,F,H,N	X		X			

[1] Type: AIS= anionic surfactant, AMS = ammoniated salt, CIS= cationic surfactant, EO = emulsified oil, LBS = synthetic latex sticker, NIS = non-ionic surfactant, OAB = organic acid buffer, OSI organo-silicone surfactant, PA = phosphoric acid buffer, PVP = polyvinyl polymer, SiB = silicone-based retardant, TBS = terpene based non-ionic surfactant.

[2] Use: I = insecticide, F = Fungicide, H = post-emergence herbicide, S = pre-emergence herbicide, GR = growth regulator; N = foliar applied nutrient, R = repellent.

For more information on the web, refer to Crop Data Management Systems, Inc. http://www.cdms.net/manuf/manuf.asp

Prepared by: Paul Domoto, Dept. of Horticulture (Jan. 04)

IOWA STATE UNIVERSITY
University Extension

Manufacture / Product	Type[1]	Use[2]	Wetting / Spreader	Sticker	Activator Penetrant	Acidifier / Buffer	Drift Retardant	Foam Retardant
Transfix	TBS	I,F,N,H	X	X				
Windcheck	PVP	H,I,F,S					X	
Britz Fertilizers, Inc., P.O. Box 366, Five Points, CA 93624								
B-85	NIS	I,F,H	X		X			
Silglow	OSI	I,F,GR,H,N	X		X			
Latron B-1956	NIS	I,F,H	X	X				
Custom Agriculture Formulators, P.O. Box 26104, Fresno, CA 93729								
Broadspread	OSI	I,F,H	X		X			
Buffer X-Tra	NIS+PA	I,F,H	X			X		
New Century Buffer	PA	I,F,H				X		X
New Century Deploy	NIS	I,F,H	X		X			
New Century Extend-97	NIS	I,F	X	X				
New Century Oil Spreader	EO	H,I,F	X	X	X			
New Century Steadfast	NIS	I,F,H	X		X	X		X
Diamond R Fertilizer Co., Inc., Ft. Pierce, Winter Garden, Okeechobee, LaBelle, FL								
Activator pH	NIS+PA	H,I,F	X		X	X		
Activator	NIS	H,I,F,S	X		X			
Adjust II	NIS	I,F,H	X		X	X		
Agri-Oil	EO	H	X		X			
Airtight	PVP	H,I,F,S					X	
Balance pH	NIS+OAB	H,I,F,GR	X		X	X	X	X
Citriwet	NIS	H	X		X			
Exterminator	SiB	H,I,F						X
Powerpac Plus	AMS+ NIS+PVP+SiB	H	X		X	X	X	X
Powerpac	AMS+PVP+SiB	H	X		X	X	X	X
Siltrate 100	OSI	I,F,H,N,GR	X		X			
Spreader-R	NIS	H,I,F,GR,N	X		X			X

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Helena Chemical Company, 225 Shilling Blvd., Suite 300, Collierville, TN 38017								
Aero Dyne-Amic	EO+OSI+OAB	I,F	X		X	X		
Agri-Dex	EO	H,I,F	X	X	X			
Buffer P.S.	AIS+PA	I,F,H	X			X		
Buffer XTra Strength	AIS+PA	I,F,H	X			X		
Cohere	NIS	I,F,H	X	X				
Cohort DC	encapsulated NIS	I,F,H	X		X			
Combat Plus	SiB							X
Crop Oil Concentrate	EO	H,I,F	X	X	X			
Dyne-Amic	OSI	H,I,F	X		X			
Foam Buster	SiB	H,I,F						X
Grounded	CIS	S,H,I,F	X					
Induce	NIS	I,F,H	X					X
Hyper-Active	NIS	I,F	X		X			
Joint Venture	OSI+NIS	I	X		X			
Kinetic	NIS	H,GR	X		X			
Lastick	NIS	I,F,N	X	X				
Nalcotrol	PVP	H,I,F,S	X				X	
Nalcotrol II	PVP	H,S	X				X	
Optima	NIS+OAB	H.I,F,N	X			X		
Penetrator	EO	H,I,F	X	X	X			
Penetrator Plus	EO+PA	H,I,F	X	X	X	X		
Penetrator Spray Adjuvant	EO	I,F,H	X	X	X			
Point Blank	PVP	H,I,F,S	X				X	
Quest	AMS	H,I,F	X		X	X		
Request	AMS	H	X		X	X		

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Manufacture / Product	Type[1]	Use[2]	Wetting / Spreader	Sticker	Activator Penetrant	Acidifier / Buffer	Drift Retardant	Foam Retardant
Stilwet L-77	OSI	I,F,H	X					
Sta-Put	PVP	I,F	X				X	
Surfix	TBS	I,F,N	X	X				
Surfix Spreader Sticker	TBS	F,I	X	X				
Vegetable Oil Concentrate	EO	I,F	X	X	X			
J.R. Simplot Company / Plant Health Technologies, P.O. box 7003, Boise, ID 83707 & P.O. Box 198, Lathrop, CA 95330								
Ad-Wet 90CA	NIS+SiB	I,F,H	X		X			X
Nutrient Buffer 0-8-0	PA	I,F				X		
PHT Ad-Here XL	NIS	I,F,H	X	X				
PHT Break-Thru	OSI	H,N,I,F	X		X			
PHT Crop Oil Concentrate	EO	H,I,F	X		X			
PHT Fasttrike	EO	H,I,F	X		X			
PHT Grip	TBS	I,F,H,N	X	X				
PHT Guide-It	PVP	I,F,H,S					X	
PHT Kicker CA	AMS	H			X	X		
PHT Quark	OSI	H,I,F,N	X		X			
Miller Chemical & Fertilizer Corp., P.O. Box 333 Radio Rd., Hanover, PA 17331								
Nu-Film-17	TBS	I,F,H	X	X				
Nu-Film-P	TBS	I,F,H	X	X				
Monteray Chemical Company, P.O. Box 3500, Fresno, CA 93745-5000								
Adjust	OAB	I,F				X		
CMR Silicone Surfactant	OSI	H,I,F,N,S	X		X			
Herbicide Activator	EO	H	X		X			
Magnify	AMS+NIS	H	X		X	X		X
No Foam A	NIS	I,F,H,GR	X		X			X

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Manufacture / Product	Type[1]	Use[2]	Wetting / Spreader	Sticker	Activator Penetrant	Acidifier / Buffer	Drift Retardant	Foam Retardant
No Foam B	CIS+NIS+SiB	I,F,H	X		X	X		X
Organic Adhesive Adjuvant	LBS	I,F,H,N		X				
Organic Oil Adjuvant	EO	H,I,F	X		X			
Rocket DL	NIS	I,F,H,N	X		X			X
Spreader Sticker (CMR)	EO	I,F	X	X				
Ultra 90-NF	OSI	I,F,H,GR	X		X			X
Umbrella	TBS	I,F	X	X				
Royster Clark, Inc., 999 Waterside Drive, 8th Floor, Norfork, VA 23510								
Amaze Gold	AMS+PVP+SiB	H	X		X	X		X
Blitz	NIS	I,F,H	X					
Infuse	TBS	I,F,GR,H	X	X				
Penetron	NIS	I,F,H	X					
Retreat	SiB	I,F,H						X
Spark	EO	F,I,H,N	X		X			X
Spectra AMS Dry	AMS+PVP+SiB	H	X		X	X		X
Sanitek Products, Inc., 3959 Goodwin ave., Los Angeles, CA 90039-1187								
38-F	PVP	I,F,H,S					X	
41-A	PVP	H,I,F,S					X	
Target Specialty Products, Inc. (Creative Marketing & Research, Inc., P.O. Box 35000, Fresno, CA 93745-5000**)**								
Pro-Spreader Activator	NIS	I,F,H,GR	X		X			X
UAP - HACO, Inc., Box 7190, Madison, WI 53707 (**Hopkins**™)								
Agricide Activator	EO	crop specific	X		X			
Unfoamer	SiB	I,F,H						X
UAP - Loveland Industries, Inc., P.O. Box 1289, Greeley, CO 80632-1289								
AcidipHactant	NIS+OAB+PA+SiB	I,F,H	X		X	X		X
Activator 90	NIS	I,F,H,GR,N	X		X			X

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Manufacture / Product	Type[1]	Use[2]	Wetting / Spreader	Sticker	Activator Penetrant	Acidifier / Buffer	Drift Retardant	Foam Retardant
Activator NF	NIS+SiB	I,H	X		X			X
Amigo	EO	H,I,F,GR,N	X	X	X			
Bond	LBS	I,F	X	X				
Chem-Trol Spray Additive	PVP	H,S					X	
Choice Xtra	AMS+NIS	H	X		X	X		
Choice	AMS	H			X	X		
Choice Weather Master	AMS	H			X	X		
Dispatch 111	AMS+NIS	H	X		X	X		
Effective	EO	H	X	X	X	X		
Fighter F	SiB	I,F,H,GR						X
Flame	AMS+NIS	H	X		X	X		
Freeway	OSI	H,I,F,GR,N,S	X		X			
Herbimax	EO	H	X		X			
Incite	EO	I			X			
Incite C/A	EO	I			X			
Intac Plus	OSI	I,F,H	X				X	
Latron AG-98	NIS	I,F,H	X		X			X
Latron B-1956	NIS	I,F,H	X	X				
LI-700	NIS	I,F,H,GR,N	X		X	X	X	X
Liberate	NIS	H,I,F,GR,N	X		X		X	
Maximizer	EO	H,I,F	X	X	X			
Motion	OSI+NIS	H,N,I,F	X		X			
MSO Concentrate	EO	H	X		X			
Phase	OSI+NIS	I,F,H	X					
Plyac	LBS	I,F,H,R	X	X				

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Pr-Empt	EO	H	X		X			
Stilwet	OSI	H,I,F,GR,N,S	X					
Spreader 90	NIS	I,F,H,N	X		X			X
Tactic	LBS+OSI	I,F	X	X				
Target LC	PVP	H,S					X	
Target RTU	PVP	H,S					X	
Thrust	AMS+PVP+SiB	H			X		X	X
Ultra Gard	EO+PVP+SiB	H	X		X		X	X
Valid	NIS+EO+SiB	H	X				X	X
Widespread	NIS	I,F,H	X		X			
X-77 Spreader	NIS	H,I,F	X		X			
Universal Crop Protection Alliance LLC, Eagan, MN 55121								
80-20 Surfactant	NIS	H,I	X		X			
Aim	PVP	I,F,H,S					X	
AMS Complete	AMS+PVP+SiB	H,I,F	X		X	X	X	X
Aquagene 90	NIS	I,F,H	X		X			X
Van Diest Supply Co., Webster City, IA (Cornbelt™)								
Crop Oil Concentrate	EO	H	X		X			
Defoamer	SiB	I,F,H						X
Dri-Gard	AMS+PVP	H			X	X	X	X
Gardian	AMS+PVP+SiB	H	X		X	X	X	X
Gardian Plus	AMS+PVP+SiB	H	X		X	X	X	X
Methylated Soy-Stik	EO	H	X		X			X
Premier 90	NIS	H,I,F	X		X			X
Premium AMS	AMS	H			X	X		
Pro-One XL	AMS+NIS+PVP+SiB	H	X		X	X	X	X
Spray Activator 85	NIS	H,I,F	X		X			X

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Western Farm Service, Inc., P.O. box 1168, Fresno, CA 93715 (**First Choice**™)								
2220	NIS	H,I,F	X	X				
4440	EO	H,I,F	X	X				
80-A	NIS	I,F,GR,N,H	X		X			
80-S	NIS	I,F,H	X	X				
9300	EO	H	X		X			
Break-Thru	OSI	H,N,I,F	X		X			
Exciter	AMS+NIS	H	X		X	X		
Herbicide Activator	EO	H	X		X			
No Foam A	NIS	I,F,H,GR	X		X			X
No Foam B	AIS+NIS+SiB	I,F,H	X		X	X		X
Oranj-All	EO	I,H	X		X			
Parasol	TBS	I,F	X	X				
Solar	EO+OSI	H,(I,F)	X		X			
Spreader Sticker	NIS	H,I,F	X	X				
Sylox	OSI	H,I,F,N	X		X			
Ultra Pro	AMS	X			X	X		
Wilbur-Ellis Co., P.O. Box 16458, Fresno, CA 93755								
Advantage	AMS+NIS	S	X		X	X		
Bivert	CIS	H	X				X	
Bronc Max	AMS	H			X	X		
Bronc Max E.D.T.	AMS+PVP	H			X	X	X	
Bronc Plus	AMS+NIS	H	X		X	X		
Bronc Plus Dry	AMS+NIS+SiB	H	X		X	X		X
Bronc Plus Dry-EDT	AMS+NIS+PVP+SiB	H	X		X	X	X	X
Cayuse Plus	AMS+NIS	H	X		X	X		
Entry	NIS	N,GR	X		X			

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Hasten	EO	H,I,F	X	X	X			
In-Place	CIS	H,I,F	X				X	
Mor-Act Adjuvant	EO+NIS	H,F,GR	X		X			
Mor-Act Crop Oil Concentrate	EO	H,F,I,GR	X		X			
N-Ter 10	AMS+NIS	H	X		X	X		
N-Ter 5	AMS+NIS	H	X		X	X		
No Foam Dry	SiB	I,F,H						X
No Foam	SiB	I,F,H						X
R-11	NIS	I,F,H,GR	X		X			
R-20	NIS	I,F,H	X		X			X
R-56	NIS	I,F,H	X	X				
R-900	NIS	H,I	X		X			X
Reguard	TBS	I,F	X	X				
Renegade	AMS+EO+NIS	H	X	X	X	X		
Replica	NIS	GR,I,F,N	X		X			
Super Spread 200	NIS	I,H	X					
Super Spread 7000	NIS	I,H	X			X		
Super Spread 90	NIS	I,F,H	X					
Super Spread MSO	EO	H	X		X			
Syl-Tac	EO+OSI	H	X		X			
Sylgard 309	OSI	I,F,GR,H,N	X		X			
Tri-Fol	OAB	I,F				X		
Twicer	OSI+OAB	I,F,H	X			X		
Other Products:								
Amway Wetting Agent	NIS	GR	X		X			
Regulaid	NIS	GR	X		X			
Tween 20	NIS	GR	X		X			

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