## Planet Possible: Our commitment to doing more with less

Our success as a company depends on sus- We know only too well that our future hinges tainability. At AkzoNobel we have sharpened to creating more value from fewer resources.

our focus on sustainability by reviewing our sustainability risks and opportunities against global trends and evaluating how they will impact our customers by 2020. We express

- More innovation, less traditional solutions:
- More renewable energy and materials, less fossil-based;
- More value chain focus. less introverted thinking.

Employing our new strategy of radical efficiency, we work with customers and suppliers to open infinite possibilities to a finite world. Learn more product by 2020. at www.akzonobel.com/planetpossible

#### Number 1

#### At least 20%

### More than 25%

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## **AkzoNobel**

#### www.akzonobel.com/agrochemicals

AkzoNobel creates everyday essentials to make people's lives more liveable and inspiring. As a leading global paints and coatings company and a major producer of specialty chemicals, we supply essential ingredients, essential protection and essential color to industries and consumers worldwide. Backed by a pioneering heritage, our innovative products and sustainable technologies are designed to meet the growing demands of our fast-changing planet, while making life easier. Headquartered in Amsterdam, the Netherlands, we have approximately 46,000 people in around 80 countries, while our portfolio includes well-known brands such as Dulux, Sikkens, International, Interpon and Eka. Consistently ranked as a leader in sustainability, we are dedicated to energizing cities and communities while creating a protected, colorful world where life is improved by what we do.

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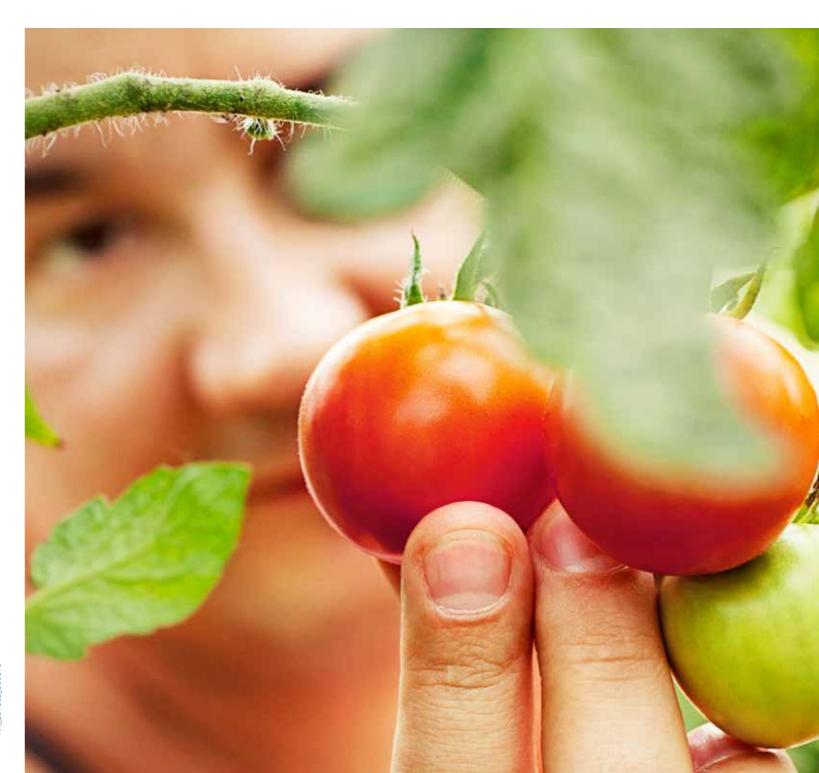
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#### **AkzoNobel Surface Chemistry**

# Ask us for your solutions

Agrochemical product portfolio - India





# We will design and supply the ultimate solutions for your needs. Today and tomorrow

Finding ways to enhance your agrochemical products or innovate technologies for cropprotection is what we do. Every day. AkzoNobel is a global, reliable and sustainable partner with a broad range of environmentally safe, biodegradable and cost effective solutions. Working together will lead to a sustainable future, boosting productivity and yield. Test us.

			GENERAL CHARACTERISTICS						SOLUBILITY		FUNCTIONALITY & USE			
1) 1% in water 2) Draves test	Physical form (20°C)	Description	Active content	Water content	р <b>Н</b> ¹)	CMC g/l	Surface tension g/I	Contact angle	Wetting power <sup>2)</sup> 1g/I	Water	Veg oil	Application area	Function	Prime use
ADJUVANTS		•												
Adsee™ 611	Liquid	Fatty amine ethoxylate blend	100%	1%	6-7	0.027	38	66		Soluble		TM	Penetrant	Rice, all pesticides
Adsee™ 900	Liquid	Fatty alcohol ethoxylate	90%	10%	5-7	1.0	26	41	5 sec	Soluble	Dispersible	TM	Penetrant, wetter	Fungicides, SU's, hydrophobic actives
Adsee™ 907	Liquid	Tallow amine ethoxylate blend	96%	4%	9-11.5	0.062	39.5	71	>10 min	Soluble	Insoluble	SL	Penetrant	IPA Glyphosate 360
Adsee™ 973	Liquid	Alcohol alkoxylate blend	100%	1%	6-8	0.007	39	68	>5 min	Soluble	Soluble	SL, SC, SE, TM	Penetrant, humectancy	SU's and Hydrophilic actives, fast uptake
Adsee™ 978	Viscous liquid	Alcohol block copolymer	100%	0.2%	5-7		37	63	>5 min	Soluble	Insoluble	TankMix	Wetter, re-wetter	Peat and turf
Adsee™ 1629	Liquid	Cetyl trimethyl ammonium chloride	29%	70%	6-9		34			Soluble		SL	Penetrant, Thickener with C-70A	Glufosinate, Glyphosate, 2,4-D, Paraquat
Adsee™ AB 615	Liquid	Oleyl alkoxylated amine	100%	1%		0.01	33	51	24 sec	Soluble	Insoluble	SL, SC, SE, TM	Penetrant, retention, spreading	Multipurpose
Adsee™ AB 650	Liquid	Oleyl alkoxylated amine blend	100%	1%	4-6	0.021	37	66	46 sec	Soluble	Dispersible	TM	Penetrant, retention, spreading	Multipurpose
Adsee™ C80W	Liquid	Cocoamine propyl amide	87%	13%	9-10	0.02	27	41	5 min	Soluble	Dispersible	SL, WDG	Penetrant, compatibilizer	K Glyphosate 540, herbicide mixtures
Adsee™ C-70A	Liquid	Cocoamine propyl amide	30%	70%	6.5-8.5	0.053	33	53	>5 min	Soluble	Insoluble	SL	Penetrant, compatibilizer	K Glyphosate 540, herbicide mixtures
Adsee™ C-70S	Liquid	Cocoamine propyl amide	30%									SL	Penetrant, Thickener with 1629	Glufosinate, Glyphosate, 2,4-D, Paraquat
Ethomeen® T/25	Liquid	Tallow amine ethoxylate 15	100%	1%	9-11	0.03	39	71	>10 min	Soluble	Partly soluble	SL	Penetrant	IPA Glyphosate 360, SU's
Ethomeen® HT/60	Solid	Tallow amine ethoxylate 50	100%	1%	9-11	NA	47	71	>10 min	Soluble	Insoluble	WDG	Pentetrant	NH4 Glyphosate
Ethylan® 995	Liquid	Fatty alcohol alkoxylate	100%	1%	5-6	>50	31		51 sec	Soluble	Soluble	SC, SE	Penetrant	Fungicides
Monolan PC	Viscous liquid	Alcohol block copolymer	100%	0.2%	5-7		37		300 sec	Soluble	Insoluble	TM	Wetter, rewetter	Peat and turf
DISPERSANTS														
Agrilan® 700 Dry	White powder	Polyacrylate copolymer	95%	5%	7-8	NA	NA	NA	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Dispersant, stabiliser	White, cost-effective
Agrilan® 755	Liquid	Polyacrylate coploymer	30%	19%	3.5-5	NA	NA	NA	>10 min	Soluble	Dispersible	SC, SE, OD	Dispersant, emulsifier, stabiliser	High performance SC stabiliser
Agrilan® 789 Dry	White powder	Polyacrylate copolymer	95%	5%	7-9	3,0	42	92	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Dispersant, stabiliser	White, hard water tolerant, low foam
Ethylan® NS-500LQ	Viscous liquid	Alcohol block copolymer	100%	0.2%	6.5-7.5	0.2	36	62	163 sec	Soluble	Insoluble	SC, SE	Dispersant, stabiliser, wetter	Versatile, standard co-dispersant for SC with Morwet D-425 Powder
Morwet® D-400 Powder	Brown powder	Naphthalene sulphonate condensate	72.5%	3%	7.5-10	25	60	83	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Dispersant, milling aid	Cost effective alternative for Morwet D-425 Powder
Morwet® D-425 Powder	Brown powder	Naphthalene sulphonate condensate	88%	4%	7.5-10	25	60	85	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Dispersant, milling aid	Robust, universal, reliable performance
Morwet® D-809 Powder	Brown powder	Naphthalene sulphonate condensate	88%	4%	7.5-10	25	63	86	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Dispersant, milling aid	Premium, hard water tolerant
WETTING AGENTS														
Adsee™ 900	Liquid	Fatty alcohol ethoxylate	90%	10%	5-7	1.0	26	41	5 sec	Soluble	Dispersible	SC, SL	Wetter, penetrant	Fungicides, SU's
Berol® 790A	White powder	Sodium olefin sulphonate	98%	2%	11.5-13.5					Soluble	•	SC, WDG, WSG, WP	Wetter	For white formulations, universal
Morwet® EFW Powder	Brown powder	Naphthalene sulphonate blend	95%	2%	7.5-10	6.0	32	65	17 sec	Soluble	Insoluble	SC, WDG, WSG, WP	Wetter	Extra fast wetting, standard with D-425
Morwet® IP Powder	Brown powder	Naphthalene sulphonate condensate	75%	2.5%	7.5-10	7.7	50	87	>5 min	Soluble	Insoluble	SC, WDG, WSG, WP	Wetter	Low foam
EMULSIFIERS														
Agrilan® AEC145	Liquid/paste	TSP-ethoxylate 15	100%	0.5%	6-7	0.015	41	63	6 min	Soluble	Soluble	EC. EW. ME	Emulsifier	Combine with Lankropol KPH70
Berol® 829	Liquid	Castor oil ethoxylate 20	100%	1%	5.5-7.5	0.11	40	72	>10 min	Dispersible	Soluble	EC, EW, ME	Emulsifier	Combine with anionic emulsifier
Berol® 904	Liquid/paste	Castor oil ethoxylate 36	100%	0.3%	6-7.5	0.29	41	73	>10 min	Soluble	Insoluble	EC, EW, ME	Emulsifier	Combine with anionic emulsifier
Ethylan® 954	Solid	Alcohol ethoxylate	100%	0.3%	5-7	0.04	44	78	>10 min	Soluble	Insoluble	EC, SC	Emulsifier, penetrant	Aromatic solvents
Ethylan® 954 LQ	Liquid	Alcohol akoxylate	100%	0.3%	5-7	0.005	38	65	>5 min	Soluble	Soluble	EC	Emulsifier, penetrant	Aromatic, Armid DM solvents
Ethylan® 992	Paste	Alcohol akoxylate	100%	0.3%	5-7	0.4	34	58	26 sec	Soluble	Soluble	EC	Emulsifier	Aromatic solvents, Dimethoate
Ethylan® NS-500LQ	Viscous liquid	Allcohol block copolymer	100%	0.2%	6.5-7.5	0.2	36	62	163 sec	Soluble	Insoluble	EC, EW	Emulsifier, stabiliser	Aromatic and Armid DM solvents, spontaneity enhancer
Lankropol® KPH70	Liquid	Dioctyl sulfosuccinate in mpg/water	70%	11%	5-8	1.6	34	35	4 sec	Opaque sol	Insoluble	EC, EW, ME	Emulsifier	Combine with Agrilan AEC145
Witconate® P-1460EH	Liquid	Linear DDBS, amine salt, in 2-EH	60%	0.8%	5-7	NA	NA	NA	NA	Dispersible		EC, EW, ME, OD	Emulsifier	Aromatic and Armid DM solvents
EMULSIFIER BLENDS	S													
Berol® 9927	Liquid/paste	Nonionic/anionic blend	100%	0.5%	5-7	NA	30	44	10 sec	Soluble	Soluble	EC	Emulsifier blends	Emulsifiers optimized for EC's based on aromatic solvents.
Berol® 9960	Paste	Nonionic/anionic blend	100%	0.5%	5-7	NA	31	49	21 sec	Soluble	Dispersible	EC	Emulsifier blends	Combining these products in pairs will result in stable EC's with excellent
Berol® 9968	Liquid	Nonionic/anionic blend	100%	0.5%	5-7	NA	28	37	8 sec	Dispersible	Soluble	EC	Emulsifier blends	emulsification performance.
Berol® 9969	Paste	Nonionic/anionic blend	100%	0.5%	5-7	NA	29	40	13 sec	Soluble	Dispersible	EC	Emulsifier blends	Guide recipes avalilable upon request.
SOLVENTS	. 3.000													
Armid® DM10	Liquid	C10 dimehyl amide	100%	0.5%	NA	NA	NA	NA	NA	Insoluble	Soluble	EC, EW	Oil soluble	Replace NMP and aromatic solvents
Armid® DM810	Liquid	C8-10 dimethyl amide	100%	0.5%	NA NA	NA NA	NA	NA NA	NA NA	Dispersible	Soluble	EC, EW	Oil soluble	Replace NMP and aromatic solvents
Armid® FMPC	Liquid	Morpholine derivative	100%	0.5%	NA NA	NA NA	NA	NA NA	NA NA	Soluble	Soluble	EC, EW, SL	Water soluble, co-solvent	NMP replacer, soluble in most solvents
	Liquiu	worpholine derivative	100/0	0.070	11/1	14/4	I N/A	14/7	1 4/~\	Joiubie	JOIUDIE	LU, LVV, UL	**ater 3010016, 00-3010611t	Tavii Topiacei, solable ili most solvents
SEED TREATMENT	I tour state	Malta daythin friends and the	0.40/	700/	4.0	NIA	NIA	NIA	NIA	Calculat	least the	TC.	Dindor	Deduce duck off incorpus for the White
Adsee <sup>™</sup> ST4	Liquid	Maltodextrin/vinylpyrrolidone polymer	24%	76%	4-6	NA	NA	NA	NA	Soluble	Insoluble	FS	Binder	Reduce dust-off, improve flowability