



solutions for growth

Agrochemicals formulation additives from Innospec

innospec 

Innospec is a global supplier of specialty chemicals to the agrochemical market.

Our adjuvants, emulsifiers, dispersants, specialty solvents, wetting and chelating agents are used widely in agrochemical formulations. We develop technologies that optimize formulations for crop protection, plant nutrition, and tank mix adjuvants. These are time tested, high quality components that ensure active ingredients can be formulated into stable products that will spread on, stick to, wet, penetrate and protect in the most efficacious way.

Our established brand names include NANSA®, DEHSOCOFIX®, EMPILAN®, EMPIPHOS®, EMPIGEN®, ENVIOMET®, EMPIMIN®, EMPICOL®, ELTESOL® range.

We are committed to continuously improve the sustainability of our products and help our customers respond to environmental challenges through innovation and improved product performance.

Fast, flexible, customer-focused

As you would expect from an organization that spans 22 countries with approximately 2400 employees, we have a wealth of knowledge and experience to draw on.

Outside agrochemicals, we are also well known in the oilfield, fuel, refinery, metal extraction, industrial, construction, personal and home care sectors.

Without compromising on performance, most of our formulation additives are readily biodegradable and have low impact on user and the environment. Our Agrochemicals application experts are committed to building strong customer relationships centred on trust and to develop innovative solutions to complex technical problems.

Thanks to our manufacturing and distribution capabilities, we have a strong operational basis and our customers benefit from consistent quality and reliable supply chain. We understand the latest regulatory developments and our dedicated team can support the formulators to register their products on a global basis. We are using resources as efficiently as possible in order to minimize the environmental impact of our operations and we continuously seek out opportunities to improve in this area.

We are excited to work on new sustainable technologies that will impact positively on tomorrow's agriculture and ultimately improve the world we live in.



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Note:

- Surface tensions measured at 1% wt/wt (aq) of Active Content
- Readily biodegradable according to OCED 301: >70% DOC or >60% ThOD/ThCO₂
Not readily biodegradable < 70% DOC or < 60% ThOD/ThCO₂
- See the EPA Trade Names of Inert Ingredients Database for applicable exemptions of tolerance and limitations.
Please note: some product trade names may not be listed as notifications with EPA are in progress.
- % Renewable Carbon Index (RCI) calculated According to ISO 16128-2:2017.
- For details of EU (or UK) REACH compliance, particularly where import is not made directly by Innospec, please contact us at reach@innospecinc.com

Adjuvants for liquid formulations

Our ENVIOMET® WT adjuvants are ideal for use in glyphosate and herbicide Soluble Liquid (SL) formulations. They were developed to ensure that the impact on the environment is kept to a minimum without compromising on product performance. Some of the ENVIOMET® WT adjuvants are compatible with high electrolyte systems, making them excellent candidates for use as wetting agents in liquid fertilizers and Tank Mix Adjuvants.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Description and use	Appearance at 25°C	Surface Tension (N/m)	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
							Parafilm	Banana Leaf						
ENVIOMET® WT 4062	Sodium laureth sulfate, 2 EO	68891-38-3	70	Biodegradable, hard water tolerant, excellent wetting agent for aqueous systems, even at low concentrations	Liquid	38	53.2	37.6	40 CFR 180.910 and 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	75
ENVIOMET® WT 4063	Sodium laureth sulfate, 3 EO	68891-38-3	70	Biodegradable, hard water tolerant, excellent wetting agent for aqueous systems, even at low concentrations	Liquid	Not available	N/A	N/A	40 CFR 180.910 and 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	67
EMPICOL® LX28/U	Sodium lauryl sulfate	68585-47-7	29	Biodegradable, excellent wetting agent for aqueous systems. Also works as a highly effective emulsifier	Liquid	36.5	66.0	42.8	Non-food application	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	100
ENVIOMET® WT 7230	Sodium methyl oleoyl taurate	137-20-2	31	Biodegradable, electrolyte tolerant surfactant stable over a broad pH range	Liquid	34	59.7	36.4	40 CFR 180.910 and 930	Yes - including Agchem use	Not classified	Not classified	Readily	86
ENVIOMET® WT 8002	Alkyl polyglucoside	68515-73-1	70	Biodegradable adjuvant and wetting agent compatible in high electrolyte systems	Liquid	27.5	25.1	9.0	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	100
ENVIOMET® WT 8170	Amphoteric alkyl amine	61789-40-0	31	Low impact and biodegradable adjuvant, particularly suited for use in IPA glyphosate SL formulations	Liquid	35.5	47.9	43.3	Non-food application	Yes - including Agchem use (professional use only)	Not classified	Aquatic Chronic 3	Readily	66
ENVIOMET® WT 8217	Alkyl diamine alkoxyate	26316-40-5	100	Low aquatic toxicity adjuvant and possible alternative for tallow amine ethoxyate in herbicide formulations	Liquid	45	83.9	60.6	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Not readily	Non-vegetable
ENVIOMET® WT 8516	Non-ionic surfactants blend	68515-73-1 26316-40-5	>67	Low aquatic toxicity adjuvant for IPA and ammonium glyphosate, liquid fertilizers and tank mix adjuvants	Liquid	27.5	28.7	25.1	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Not readily	61
ENVIOMET® WT 8519	Non-ionic and anionic surfactants blend	68515-73-1 67762-19-0	77.5	Biodegradable, low aquatic toxicity adjuvant for herbicide formulations, liquid fertilizers and tank mix adjuvants	Liquid	35	63.5	34.3	Non-food application	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	66

* According to EU Regulation 1272/2008

Anionic emulsifiers – calcium dodecylbenzene sulfonates

Our NANSAs® EVM are highly versatile and functional calcium dodecylbenzene sulfonates. They can be used as anionic emulsifiers in Emulsifiable Concentrate (EC), Emulsion in Water (EW), Micro-Emulsion (ME), Suspo-Emulsion (SE) and Oil Dispersion (OD) formulations. The products provide spontaneous emulsification (so-called 'blooming') for EC formulations, together with excellent long-term stability. They are generally combined with non-ionic emulsifiers such as the DEHSOCOFIX® CO / ENVIOMET® EM castor oil ethoxylates and EMPILAN® alcohol alkoxyates.

Product Name	Chemistry	CAS number	Solvent	Active Content (%w/w)	Appearance at 25°C	Flash Point (°C)	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
NANSAs® EVM 40/2ND	Branched calcium dodecylbenzene sulfonate and non-ionic surfactant blend	68953-96-8 (11117-11-6) 78330-21-9	Aromatic solvent, type Solvesso™ 200ND	40	Viscous liquid	>90	40 CFR 180.910, 930	Yes - including Agchem use	Carcinogenic 2 * and Reprotoxic 2 **	Aquatic Chronic 2	Not readily	Non-vegetable
NANSAs® EVM 50/ND	Branched calcium dodecylbenzene sulfonate	68953-96-8 (11117-11-6)	Iso-butanol and aromatic solvent, type Solvesso™ 200ND	50	Liquid	31	40 CFR 180.920	Yes - including Agchem use	Carcinogenic 2 * and Reprotoxic 2 **	Aquatic Chronic 2	Not readily	Non-vegetable
NANSAs® EVM 62/H	Branched calcium dodecylbenzene sulfonate	68953-96-8 (11117-11-6)	Iso-butanol	61	Viscous liquid	28	40 CFR 180.920	Yes - including Agchem use	Reprotoxic 2 **	Aquatic Chronic 2	Not readily	Non-vegetable
NANSAs® EVM 65/H15	Branched calcium dodecylbenzene sulfonate	68953-96-8 (11117-11-6)	N-Hexanol and aromatic solvent, type Solvesso™ 150ND	65	Viscous liquid	64	40 CFR 180.910, 930	Yes - including Agchem use	Carcinogenic 2 * and Reprotoxic 2 **	Aquatic Chronic 2	Not readily	Non-vegetable
NANSAs® EVM 40/2NDL	Linear calcium dodecylbenzene sulfonate and non-ionic surfactant blend	1335202-81-7 78330-21-9	Aromatic solvent, type Solvesso™ 200ND	40	Viscous liquid	>90	40 CFR 180.910, 930	Yes - including Agchem use	Carcinogenic 2 *	Aquatic Chronic 2	Readily	Non-vegetable
NANSAs® EVM 60/2EG	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	2-ethylhexanol	60	Viscous liquid	81	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSAs® EVM 62/N	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	N-butanol	61	Liquid	36	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSAs® EVM 63/B	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	Iso-butanol	63	Liquid	28	40 CFR 180.920	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable

* According to EU Regulation 1272/2008

* Due to the solvent - not classified according to EU Regulation 1272/2008

** Due to residual impurity - not classified according to EU Regulation 1272/2008

Anionic emulsifiers – calcium dodecylbenzene sulfonates cont

Product Name	Chemistry	CAS number	Solvent	Active Content (%w/w)	Appearance at 25°C	Flash Point (°C)	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
NANSA® EVM 70/2E	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	2-ethylhexanol / propylene glycol	57	Viscous liquid	80	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSA® EVM 70/B	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	Iso-butanol	69	Viscous liquid	28	40 CFR 180.920	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSA® EVM 70/N	Linear calcium dodecylbenzene sulfonate	1335202-81-7 (26264-06-2, 68584-23-6, 84989-14-0, 90194-26-6)	N-butanol	67	Viscous liquid	26	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable

* According to EU Regulation 1272/2008

Anionic emulsifiers – dodecylbenzene sulfonates

Our NANSAs[®] are anionic surfactants based on dodecylbenzene sulfonic acids. Available as the acid form, as the sodium or as the isopropylamine salt, these products provide flexibility to the formulator as primary emulsifiers for Emulsifiable Concentrates (EC) and Emulsions in Water (EW). They can also be used as wetting agents in Suspension Concentrate (SC) formulations.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	Surface Tension (N/m)	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
						Parafilm	Banana Leaf						
NANSAs [®] SSA/F	Linear dodecylbenzene sulfonic acid	85536-14-7 (68584-22-5, 27176-87-0)	>95	Viscous liquid	35.5	50.5	33.0	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSAs [®] SBA	Branched dodecylbenzene sulfonic acid	68608-88-8	>94	Viscous liquid	33.5	49.9	24.2	40 CFR 180.910, 930	Yes - Not for Agchem use	Reprotoxic 2 **	Aquatic Chronic 2	Not readily	Non-vegetable
NANSAs [®] SS 30/U	Linear sodium dodecylbenzene sulfonate	68411-30-3 (90194-45-9, 25155-30-0)	30	Liquid	35.5	52.8	40.1	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSAs [®] YS 94	Linear iso-propylamine dodecylbenzene sulfonate	84961-74-0	>90	Viscous liquid	30	30.9	16.1	40 CFR 180.920 and 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable

* According to EU Regulation 1272/2008
 ** Due to residual impurity - not classified according to EU Regulation 1272/2008

Anionic emulsifiers and wetting agents - sodium di-octyl sulfosuccinates

Our ENVIOMET® EM series and EMPIMIN® OT are sodium di-octyl sulfosuccinates based surfactants. They have a very low dynamic surface tension, ensuring rapid interfacial migration. ENVIOMET® EM 5662, EM 5665 and EM 5667 are particularly well suited to formulations like Oil Dispersions (OD) and Emulsifiable Concentrates (EC) that require rapid wetting properties when diluted into water. ENVIOMET® EM 5669 and EM 5685, as well as EMPIMIN® OT 50, are suitable for water based formulations such as Suspension Concentrate (SC) formulations and Tank Mix Adjuvants.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	Surface Tension (N/m)	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
						Parafilm	Banana Leaf						
ENVIOMET® EM 5662	Sodium di-octyl sulfosuccinate in methylated oil	577-11-7	64	Liquid	28.5	28.9	13.7	40 CFR 180.910	Yes - including Agchem use	Not classified	Not classified	Readily	36
ENVIOMET® EM 5665	Sodium di-octyl sulfosuccinate in aromatic solvent, type Solvesso™ 100	577-11-7	64	Liquid	Not available	-	-	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 2	Readily	Non-vegetable
ENVIOMET® EM 5667	Sodium di-octyl sulfosuccinate in aromatic solvent, type Solvesso™ 150ND	577-11-7	64	Liquid	Not available	-	-	40 CFR 180.910, 930	Yes - including Agchem use	Carcinogenic 2**	Aquatic Chronic 2	Readily	Non-vegetable
ENVIOMET® EM 5669	Sodium di-octyl sulfosuccinate in water and propylene glycol	577-11-7	69	Liquid	27.5	16.7	<10.0	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® EM 5675	Sodium di-octyl sulfosuccinate in propylene glycol	577-11-7	75	Liquid	Not available	-	-	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® EM 5685	Sodium di-octyl sulfosuccinate in propylene glycol	577-11-7	85	Liquid	Not available	-	-	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
EMPIMIN® OT 50	Sodium di-octyl sulfosuccinate in water	577-11-7	50	Liquid	Not available	-	-	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable

* According to EU Regulation 1272/2008

** Due to the solvent - not classified according to EU Regulation 1272/2008

Anionic emulsifiers and wetting agents - alkyl phosphate esters

Our EMPIPHOS® alkyl phosphate esters are versatile anionic surfactants that can be used as emulsifiers in liquid formulations such as Emulsifiable Concentrates (EC), Oil Dispersions (OD), Suspension Concentrates (SC) and Suspo-Emulsions (SE). They generally exhibit good electrolyte tolerance and can be also used as wetting agents in liquid fertilizers and Tank Mix Adjuvants.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	Surface Tension (N/m)	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
						Parafilm	Banana Leaf						
EMPIPHOS® O3 D	Fatty alcohol, ethoxy phosphate, free acid	39464-69-2	100	Viscous liquid	35	46.2	47.9	40 CFR 180.910 and 930	Yes – polymer	Not classified	Not classified	Not readily	55
EMPIPHOS® A5 D	Fatty alcohol, ethoxy phosphate, free acid	68908-64-5	100	Liquid	30	41.0	26.5	Not listed	Yes – polymer	Not classified	Not classified	Not readily	<10
EMPIPHOS® DF 1326	Fatty alcohol alkoxy phosphate, free acid	68909-65-9	100	Liquid	28.5	31.5	28.7	Not listed	Yes – polymer	Not classified	Aquatic Acute 1 Aquatic Chronic 3	Not readily	68

* According to EU Regulation 1272/2008

Non-ionic emulsifiers - castor oil ethoxylates

Our DEHSOCOFIX® CO and ENVIOMET® EM castor oil ethoxylates are highly versatile and functional non-ionic emulsifiers. They can be used in a number of formulations such as Emulsifiable Concentrates (EC), Emulsions in Water (EW), Suspo-Emulsions (SE) and Oil Dispersions (OD). Offering great flexibility, these emulsifiers can be used to achieve a broad range of Hydrophilic Lipophilic Balance (HLB). They are generally combined with anionic emulsifiers such as NANSA® EVM calcium dodecylbenzene sulfonates and ENVIOMET® EM sodium di-alkyl sulfosuccinates.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	HLB	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
DEHSOCOFIX® CO 70	Castor oil, 12 EO	61791-12-6	100	Liquid	7.3	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	70
DEHSOCOFIX® CO 95	Castor oil, 18 EO	61791-12-6	100	Liquid	9.5	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	61
ENVIOMET® EM 1020	Castor oil, 20 EO	61791-12-6	100	Liquid	10.2	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	58
DEHSOCOFIX® CO 105	Castor oil, 24 EO	61791-12-6	100	Liquid	10.5	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	54
DEHSOCOFIX® CO 115	Castor oil, 30 EO	61791-12-6	100	Liquid	11.3	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	48
ENVIOMET® EM 1032	Castor oil, 32 EO	61791-12-6	100	Liquid	12.0	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	47
DEHSOCOFIX® CO 125	Castor oil, 35 EO	61791-12-6	100	Liquid	12.5	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	44
ENVIOMET® EM 1036	Castor oil, 36 EO	61791-12-6	100	Viscous liquid	12.6	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	44
ENVIOMET® EM 1040/B	Castor oil, 40 EO	61791-12-6	100	Paste	13.0	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	41
ENVIOMET® EM 1054	Castor oil, 54 EO	61791-12-6	100	Paste	14.4	40 CFR 180.960	Yes – polymer	Not classified	Not classified	Readily	34

* According to EU Regulation 1272/2008

Non-ionic emulsifiers and wetting agents - alcohol alkoxylates

Our EMPILAN® and ENVIOMET® alcohol alkoxylates are extremely versatile products. Given their broad application uses, these products can be incorporated into virtually any liquid formulation: Emulsifiable Concentrates (EC), Emulsions in Water (EW), Micro-Emulsions (ME), Oil Dispersions (OD), Suspension Concentrates (SC) or Suspo-Emulsions (SE). They will provide efficient wetting and emulsification properties and they are generally combined with anionic emulsifiers such as NANSA® EVM calcium dodecylbenzene sulfonates and ENVIOMET® EM sodium di-alkyl sulfosuccinates.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	Surface Tension (N/m)	HLB	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
							Parafilm	Banana Leaf						
EMPILAN® KA 5	C10-C12 alcohol, 5 EO	67254-71-1	100	Liquid	29.5	11.5	17.1	9.9	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Not classified	Readily	52
EMPILAN® KCL 11	C12-C15 alcohol, 11 EO	68131-39-5	100	Waxy solid	32.5	14	26.2	29.1	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPILAN® KCL 11/90	C12-C15 alcohol, 11 EO	68131-39-5	90	Liquid	32.5	14	35.9	27.8	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPILAN® KI 6	C13 alcohol, 6 EO	78330-21-9	100	Liquid	29	11.4	22.1	10.1	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPILAN® KI 8	C13 alcohol, 8 EO	78330-21-9	100	Liquid	30	12.8	22.8	12.1	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPILAN® KI 10	C13 alcohol, 10 EO	78330-21-9	100	Liquid	30	13.7	30.0	13.1	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPILAN® KLA 6	Cetyl-oleyl alcohol, 6 EO	68920-66-1	100	Liquid	32	10	36.3	44.3	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Acute 1 Aquatic Chronic 3	Readily	58
EMPILAN® KR 6	C9-C11 alcohol, 6 EO	68439-46-3	100	Liquid	30	12.5	26.7	15.7	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Not classified	Readily	Non-vegetable
EMPILAN® KR 8	C9-C11 alcohol, 8 EO	68439-46-3	100	Liquid	32	13.8	34.5	19.4	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Not classified	Readily	Non-vegetable
EMPILAN® PF 7169	C11 alcohol alkoxylate	CAS 68154-97-2	100	Liquid	32	12.2	38.0	12.8	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® EM 3151	2-Ethylhexanol alkoxylate	64366-70-7	100	Liquid	31.5	10.4	33.0	13.1	40 CFR 180.910, 930 and 940	Yes – polymer	Not classified	Aquatic Chronic 3	Not readily	Non-vegetable

* According to EU Regulation 1272/2008

Specialty solvents

Our ENVIOMET® SOL are water immiscible and high flash point solvents that exhibit a low toxicity profile and have minimal impact on the environment. They can be used in Emulsifiable Concentrate (EC), Emulsion in Water (EW) and Suspo-Emulsion (SE) formulations.

Product Name	Chemistry	CAS number	Purity (%w/w)	Appearance at 25°C	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
ENVIOMET® SOL DBC	Di-n-butyl carbonate	542-52-9	>98	Colorless clear liquid	Not listed	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® SOL 2-EH Lactates	2-Ethylhexyl lactates	186817-80-1 2222097-33-6 2222097-34-7	>97	Colorless clear liquid	40 CFR 180.910 and 930	Yes - including Agchem use	Not classified	Not classified	Readily	27

* According to EU Regulation 1272/2008

Dry wetting agents

Our ENVIOMET® WT, NANSA® HS and EMPICOL® wetting agents provide an easy-to-handle and effective wetting agent for both Wettable Powder (WP) and Water dispersible Granule (WG) solid formulations.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	Surface Tension (N/m)	Water Contact Angles (Degree)		US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
						Parafilm	Banana Leaf						
ENVIOMET® WT 4510	Sodium lauryl sulfate	68955-19-1	>92	Powder	33.5	66.7	52.0	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	100
ENVIOMET® WT 4950	Sodium alpha-olefin sulfonate	68439-57-6	>92	Powder	37.5	70.5	47.9	40 CFR 180.910	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® WT 5700	Sodium di-octyl sulfosuccinate	577-11-7	85	Powder	Not available	-	-	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
ENVIOMET® WT 7270	Sodium methyl oleoyl taurate	137-20-2	70	Powder	Not available	-	-	40 CFR 180.910, 930	Yes - including Agchem use	Not classified	Not classified	Readily	86
NANSA® HS 80/S	Linear sodium dodecylbenzene sulfonate	68411-80-3	80	Powder	33	46.5	34.6	40 CFR 180.910	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
NANSA® HS 90/S	Linear sodium dodecylbenzene sulfonate	68411-80-3	90	Powder	33.5	49.7	40.3	40 CFR 180.920	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	Non-vegetable
EMPICOL® LXV/N	Sodium lauryl sulfate	68585-47-7	>92	Solid/Needle	33	59.1	44.7	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	100
EMPICOL® 0045/B	Sodium dodecyl sulfate	151-21-3	>92	Powder	33.5	52.8	42.1	40 CFR 180.910, 930 and 940	Yes - including Agchem use	Not classified	Aquatic Chronic 3	Readily	100

* According to EU Regulation 1272/2008

Dispersants - ENVIOMET® DIS series

Our ENVIOMET® DIS are specialized dispersants, providing high performance when used in the specific formulations indicated below. Further on, ENVIOMET® DIS 9411 and DIS 9433 are high molecular weight alkoxyates that can be used as non-ionic emulsifiers, providing some long term stability to the emulsification.

Product Name	Chemistry	Description and use	CAS number	Active Content (%w/w)	Appearance at 25°C	US EPA listing*	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
ENVIOMET® DIS 9100	Methyl methacrylate graft copolymer	High performance aqueous dispersant for SC and SE formulations	119724-54-8	30-35	Liquid	40 CFR 180.910, 930 and 940	Yes - polymer	Not classified	Not classified	Not readily	Non-vegetable
ENVIOMET® DIS 9300	Sodium aromatic sulfonate formaldehyde condensate	Versatile aqueous dispersant suitable for liquid (SC, SE) and dry formulations (WP, WG)	68425-94-5	>85	Powder	40 CFR 180.910 and 920	Yes - polymer	Not classified	Not classified	Not readily	Non-vegetable
ENVIOMET® DIS 9411	Butyl EO/PO copolymer	High molecular weight alkoxyate emulsifier (HLB 14) and dispersant	9038-95-3	100	Liquid	40 CFR 180.960	Yes - polymer	Not classified	Not classified	No data	Non-vegetable
ENVIOMET® DIS 9433	Butyl EO/PO copolymer	High molecular weight alkoxyate emulsifier (HLB 17) and dispersant	9038-95-3	100	Viscous liquid	40 CFR 180.960	Yes - polymer	Not classified	Not classified	No data	Non-vegetable
ENVIOMET® DIS 9483	Nonionic surfactant blend	Multipurpose blend, combining a dispersant and wetting agent, for SC and SE formulations	9038-95-3 106232-83-1	88	Liquid	40 CFR 180.910, 930	Yes - polymer	Not classified	Not classified	No data	Non-vegetable
ENVIOMET® DIS 9500	Polycondensed fatty acid	Low HLB, non-aqueous dispersant suitable for OD formulations	58128-22-6	100	Viscous liquid	40 CFR 180.960	Yes - polymer	Not classified	Not classified	Readily	100

Dispersants - DEHSCOFIX® series

Our DEHSCOFIX® products can function as suitable dispersing agents for both Wettable Powder (WP) and Water dispersible Granule (WG) solid formulations.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
DEHSCOFIX® 153	Sodium naphthalene sulfonate formaldehyde condensate	36290-04-7 (9084-06-4)	>80	Powder	40 CFR 180.910 and 920	Yes - polymer	Not classified	Not classified	Not readily	Non-vegetable
DEHSCOFIX® 158	Sodium naphthalene sulfonate formaldehyde condensate	36290-04-7 (9084-06-4)	>80	Powder	40 CFR 180.910 and 920	Yes - polymer	Not classified	Not classified	Not readily	Non-vegetable
DEHSCOFIX® 920	Sodium naphthalene sulfonate formaldehyde condensate	36290-04-7 (9084-06-4)	>75	Powder	40 CFR 180.910 and 920	Yes - polymer	Not classified	Not classified	Not readily	Non-vegetable

* According to EU Regulation 1272/2008

Hydrotropes

Our ELTESOL® hydrotropes can be used to increase the solubility of other compounds such as pesticide active ingredients. They will raise the cloud point of non-ionic surfactants, allowing clear liquids to be obtained at higher temperatures.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment*	Biodegradability	% Renewable Carbon Index
ELTESOL® SX 40	Sodium xylene sulfonate	1300-72-7	40	Liquid	40 CFR 180.920, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable
ELTESOL® SX 93	Sodium xylene sulfonate	1300-72-7	>93	Powder	40 CFR 180.920, 930 and 940	Yes - including Agchem use	Not classified	Not classified	Readily	Non-vegetable

* According to EU Regulation 1272/2008

Biodegradable chelating agents

Our ENVIOMET® C chelating agents can be incorporated into Wettable Powder (WP) and Water dispersible Granule (WG) formulations in order to improve the hard water compatibility. Further on, they can be used as conditioning agents in tank mixes. They are listed in Annex 1 of EU Regulation 2003/2003 and can also be used as chelating agent for micro-nutrients. The ENVIOMET® C are readily biodegradable and are not classified, making them an environmentally friendly alternative to other chemistries.

Product Name	Chemistry	CAS number	Active Content (%w/w)	Appearance at 25°C	US EPA listing	EU REACH Compliance	Carcinogenic, mutagenic and reprotoxic (CMR)	Hazardous to the environment *	Biodegradability	% Renewable Carbon Index
ENVIOMET® C140	[S,S] Ethylenediamine di-succinic tri-sodium salt	178949-82-1	37	Liquid	40 CFR 180.910	Yes - including Agchem use. Indirect imports into EU subject to OR service	Not classified	Not classified	Readily	Non-vegetable
ENVIOMET® C265	[S,S] Ethylenediamine di-succinic acid	20846-91-7	66	Powder	40 CFR 180.920	Yes - including Agchem use. Indirect imports into EU subject to OR service	Not classified	Not classified	Readily	Non-vegetable

* According to EU Regulation 1272/2008

Notes:

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