

Appendix B3

Composition of Pesticide Formulations Tested in the LLNA

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Composition of Pesticide Formulations Tested in the LLNA

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
Dinocap	EC	ECPA	NA	Dinocap	350 G/L	NA	NA
			NA	Solvent	542 G/L	NA	NA
			NA	Surfactant	78 G/L	NA	NA
Formulation 1	SC	Dow AgroSciences	Benzamide	Isoxaben	125 G/L	12.14%	- (Dow Data)
			NA	Water	735.2 G/L	NA	-
			NA	Thickener	4 G/L	NA	- (MSDS)
			NA	Antifoam	2 G/L	NA	- (MSDS)
			NA	Surfactant	30 G/L	NA	- (MSDS)
			NA	Surfactant	20 G/L	NA	- (MSDS)
			NA	Performance aid	8.5 G/L	NA	- (MSDS)
			NA	pH Buffer	1.3 G/L	NA	- (MSDS)
			NA	Surfactant	100 G/L	NA	- (MSDS)
			NA	Biocide	4 G/L	< 0.1%	+ (MSDS)
Formulation 2	SE	Dow AgroSciences	Pyridinyloxy acetic acid	Fluroxypyr-methyl	144.09 G/L	14.53%	- (Dow Data)
			Sulfonamides	Florasulam	2.5 G/L	0.25%	- (Dow Data)
			NA	Emulsifier	58.92 G/L	NA	- (MSDS)
			NA	Emulsifier	31.84 G/L	NA	- (MSDS)
			NA	Solvent	326.8 G/L	NA	- (MSDS)
			NA	Suspending Aid	3.24 G/L	NA	- (MSDS)
			NA	Suspending Aid	0.91 G/L	NA	- (MSDS)
			NA	Emulsifier	1.81 G/L	NA	- (MSDS)
			NA	Emulsifier	1.81 G/L	NA	- (MSDS)
			NA	Biocide	0.54 G/L	0.05%	+ (MSDS)
			NA	Antifoam	1.06 G/L	NA	- (MSDS)
			NA	Antifreeze	34.62 G/L	NA	- (MSDS)
			NA	Suspending Aid	0.05 G/L	NA	- (MSDS)
			NA	Dispersant	0.1 G/L	NA	- (MSDS)
			NA	pH Buffer	0.003 G/L	NA	- (MSDS)
			NA	Dispersant	0.2 G/L	NA	- (MSDS)
			NA	Water	383.66 G/L	NA	-
			Formulation 3	SC	Dow AgroSciences	Sulfonamides	Florasulam
NA	Water	869.12 G/L				NA	-
NA	Biocide	0.93 G/L				0.09%	+ (MSDS)
NA	Dispersant	10.03 G/L				NA	- (MSDS)
NA	Thickener	10.03 G/L				NA	- (MSDS)
NA	Dispersant	1.96 G/L				NA	- (MSDS)
NA	Antifoam	0.21 G/L				NA	- (MSDS)
NA	Thickener	1.76 G/L				NA	- (MSDS)
NA	Antifreeze	89.96 G/L				NA	- (MSDS)
NA	pH Buffer	0.1 G/L				NA	- (MSDS)
Formulation 4	SL	Dow AgroSciences	Pyridine carboxylic acids	Clopyralid-olamine (MEA salt)	131.75 G/L	12.52%	- (Dow Data) (clopyralid)
			NA	Water	920.25 G/L	NA	-
Formulation 5	EC	Dow AgroSciences	Pyridinyloxy acetic acid	Triclopyr-butyl	670.39 G/L	60.45%	+ (Dow Data)
			NA	Emulsifier	55.45 G/L	NA	- (MSDS)
			NA	Solvent	383.16 G/L	NA	- (MSDS)
Formulation 6	EW	Dow AgroSciences	Pyridinyloxy acetic acid	Triclopyr-butyl	333.567 G/L	29.44%	+ (Dow Data)
			Pyridine carboxylic acids	Aminopyralid potassium	35.507 G/L	3.13%	- (Dow Data) (Aminopyralid)
			NA	Antifreeze	50 G/L	NA	- (MSDS)
			NA	Emulsifier	32.5 G/L	NA	- (MSDS)
			NA	Emulsifier	32.5 G/L	NA	- (MSDS)
			NA	Biocide	1 G/L	0.09%	+ (MSDS)
			NA	Thickener	7.5 G/L	NA	- (MSDS)
			NA	Thickener	1.875 G/L	NA	- (MSDS)
			NA	pH Buffer	27.33 G/L	NA	- (MSDS)
			NA	pH Buffer	2.67 G/L	NA	- (MSDS)
NA	Antifoam	2 G/L	NA	- (MSDS)			
NA	Water	606.831 G/L	NA	-			
Formulation 7	SC	Dow AgroSciences	Triazole	Myclobutanil	45 G/L	4.12%	Equivocal (Dow Data)
			Phenoxyquinoline	Quinoxifen	45 G/L	4.12%	+ (Dow Data)
			NA	Antifreeze	74.89 G/L	NA	- (MSDS)
			NA	Dispersant	31.81 G/L	NA	- (MSDS)
			NA	Wetter	14.96 G/L	NA	- (MSDS)
			NA	Suspending Aid	7.45 G/L	NA	- (MSDS)
			NA	Carrier	57.12 G/L	NA	-
			NA	Antifoam	1.09 G/L	NA	- (MSDS)
			NA	Biocide	.37 G/L	0.03%	+ (MSDS)
			NA	Water	785.84 G/L	NA	-
NA	Filler	26.5 G/L	NA	- (MSDS)			
NA	Thickener	1.97 G/L	NA	- (WHO)			
Formulation 8	EC	Dow AgroSciences	Phenoxyacetic acids	2,4-D-ethylhexyl	905 G/L	81.68%	+ (Dow Data)
			NA	Emulsifier	37 G/L	3.34%	- (MSDS)
			NA	Emulsifier	43 G/L	3.88%	- (MSDS)
			NA	Solvent	123 G/L	NA	- (MSDS)
Formulation 9	SC	Dow AgroSciences	Spinosoids	DE-175	120 G/L	11.71%	equivocal (+/- LLNA)
			Nicotinoates	Wetter	20.5 G/L	NA	- (MSDS)
			NA	Antifreeze	61.5 G/L	NA	- (MSDS)
			NA	Biocide	2 G/L	0.20%	+ (MSDS)
			NA	Thickener	1.8 G/L	NA	- (WHO)
			NA	Thickener	4.1 G/L	NA	- (MSDS)
			NA	Antifoam	3.6 G/L	NA	- (MSDS)
			NA	Dispersant	46.1 G/L	NA	- (MSDS)
NA	Water	765.4 G/L	NA	-			

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
Formulation 10	EW	Dow AgroSciences	NA	Dithiopyr	240 G/L	24%	- (Dow Data)
			NA	Solvent	130 G/L	13%	- (MSDS)
			NA	Emulsifier	470 G/L	47%	- (MSDS)
			NA	Water	160 G/L	16%	-
Formulation 11	OD	Dow AgroSciences	Chloroacetamides	Acetochlor	950 G/L	84.15%	+ (Dow Data)
			Sulfonamides	Penoxsulam	3.5 G/L	0.31%	- (Dow Data)
			NA	Suspending Aid	28.5 G/L	NA	- (MSDS)
			NA	Antifoam	0.035 G/L	NA	- (MSDS)
			NA	Thickener	0.035 G/L	NA	- (MSDS)
			NA	pH Buffer	0.014 G/L	NA	- (MSDS)
			NA	Dispersant	0.28 G/L	NA	- (MSDS)
			NA	Wetter	0.07 G/L	NA	- (MSDS)
			NA	Antifreeze	0.21 G/L	NA	- (MSDS)
			NA	Water, deionized	2.84 G/L	NA	-
			NA	Nutrient	4.75 G/L	0.42%	- (human Data from IUCLID)
			NA	Related Process Inert Impurities	45.98 G/L	NA	- (MSDS)
			NA	Anti-Caking Agent	0.007 G/L	NA	- (MSDS)
			NA	Biocide	0.007 G/L	0% (0.007 g/L)	+ (MSDS)
			NA	Emulsifier	92.94 G/L	NA	- (MSDS)
			Formulation 12	EC	Dow AgroSciences	Dinitrophenol	Meptyldinocap
NA	Emulsifier	41.7 G/L				NA	- (MSDS)
NA	Emulsifier	25.76 G/L				NA	- (MSDS)
NA	Solvent	562.54 G/L				NA	- (MSDS)
Formulation 13	EC	Dow AgroSciences	Phenoxyacetic acids	2,4-D-ethylhexyl	995.5 G/L	87.17%	+ (Dow Data)
			NA	Emulsifier	48 G/L	NA	- (MSDS)
			NA	Emulsifier	48 G/L	NA	-
			NA	Unspecified Inert	50.5 G/L	NA	-
Formulation 14	CS	Dow AgroSciences	Pyrethroids	Gamma-cyhalothrin	15 G/L	1.5%	+ (Dow Data)
			NA	Solvent	10.02 G/L	NA	- (MSDS)
			NA	Emulsifier	1.25 G/L	NA	- (MSDS)
			NA	Emulsifier	1.25 G/L	NA	- (MSDS)
			NA	Encapsulating Agent	1.63 G/L	NA	-
			NA	pH Buffer	1 G/L	NA	- (MSDS)
			NA	Thickener	0.02 G/L	NA	- (MSDS)
			NA	Biocide	1.5 G/L	0.15%	+ (MSDS)
			NA	Thickener	1.5 G/L	NA	- (MSDS)
			NA	Thickener	0.02 G/L	NA	- (MSDS)
			NA	Thickener	15.03 G/L	NA	-
			NA	Water	953.8 G/L	NA	-
Formulation 15	CS	Dow AgroSciences	Pyrethroids	Gamma-cyhalothrin	60 G/L	5.9%	+ (Dow Data)
			NA	Solvent	48.82 G/L		- (MSDS)
			NA	Emulsifier	5.09 G/L		- (MSDS)
			NA	Emulsifier	5.09 G/L		- (MSDS)
			NA	Encapsulating Agent	6.81 G/L		-
			NA	Thickener	0.09 G/L		- (MSDS)
			NA	Biocide	1.53 G/L	0.15%	+ (MSDS)
			NA	Thickener	1.53 G/L		- (MSDS)
			NA	Thickener	0.09 G/L		- (MSDS)
			NA	pH Buffer	4.07 G/L		- (MSDS)
			NA	Thickener	10.68 G/L		-
			NA	Water	873.4 G/L		-
Formulation 16	EC	Dow AgroSciences	Pyridinyloxy acetic acid	Triclopyr-butyl	1050.07 G/L	83.94%	+ (Dow Data)
			NA	Emulsifier	200.93 G/L		- (MSDS)
Formulation 17	SL	Dow AgroSciences	Glycines	Glyphosate dimethylammonium salt	608 G/L	50.21%	- (EPA tolerance)
			NA	Adjuvant	50 G/L	4.13%	no Data
			NA	Adjuvant	100 G/L		- (MSDS)
			NA	Water	453 G/L		-
Formulation 19	EC	Dow AgroSciences	Pyridinyloxy acetic acid	Fluroxypyr-meptyl	100.865 G/L	9.23%	- (Dow Data)
			Benzonitriles	Bromoxynil-octanoate	407.569 G/L	37.29%	+ (Dow Data)
			NA	Emulsifier	44 G/L	4.03%	- (MSDS)
			NA	Emulsifier	44 G/L		- (MSDS)
			NA	Solvent	496.566 G/L	45.43%	- (IUCLID Datasheet)
Formulation 20	SE	Dow AgroSciences	Sulfonamides	Florasulam	4 G/L	0.39%	- (Dow Data)
			NA	MCPA-2-ethylhexyl	436.817 G/L	42.25%	- (Dow Data);+ (EPA RED)
			NA	Emulsifier	12 G/L		- (MSDS)
			NA	Thickener	4.34 G/L		- (MSDS)
			NA	Dispersant	0.17 G/L		- (MSDS)
			NA	Antifoam	1 G/L		- (MSDS)
			NA	Stabilizer	1.5 G/L		- (MSDS)
			NA	Thickener	0.54 G/L		- (MSDS)
			NA	Stabilizer	45.14 G/L		- (MSDS)
			NA	pH Buffer	0.01 G/L		- (MSDS)
			NA	Stabilizer	0.34 G/L		- (MSDS)
			NA	Antifreeze	49.75 G/L		- (MSDS)
			NA	Biocide	0.93 G/L	0.09%	+ (MSDS)
			NA	pH Buffer	1.03 G/L		- (MSDS)
			NA	Water	476.443 G/L		-
Formulation 21	TK	Dow AgroSciences	Acyl Ureas	Hexaflumuron	645 G/L	50%	- (Dow Data)
			NA	Water	497.42 G/L		-
			NA	Biocide	9.68 G/L	0.75%	+ (MSDS)
			NA	Surfactant	64.5 G/L		- (MSDS)
			NA	Antifoam	3.48 G/L		- (MSDS)
			NA	Surfactant	69.92 G/L	5.42%	- (MSDS)

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
Formulation 22	ME	Dow AgroSciences	Pyridinyloxy acetic acid	Fluroxypyr-meptyl	28.8 G/L	2.83%	- (Dow Data)
			NA	Triclopyr-triethylammonium	83.67 G/L	8.23%	+ (EPA RED)
			NA	Surfactant	29.59 G/L		- (MSDS)
			NA	Carrier	29.59 G/L		- (MSDS)
			NA	Surfactant	84 G/L		- (MSDS)
			NA	Emulsifier	48 G/L		- (MSDS)
			NA	Solvent	86.34 G/L		- (MSDS)
			NA	Unspecified Inert	104.98 G/L		-
Formulation 23	SL	Dow AgroSciences	Pyridinyloxy acetic acid	Triclopyr-triethylammonium	167.36 G/L	16%	+ (EPA RED)
			NA	Water	837 G/L		-
			NA	Antifoam	0.02 G/L		- (MSDS)
			NA	Wetter	3.77 G/L		- (MSDS)
			NA	Chelating agent	8.68 G/L		- (MSDS)
			NA	Surfactant	10.04 G/L		- (MSDS)
			NA	Neutralizer	11.3 G/L		- (67/548/EEC)
			NA	Carrier	7.85 G/L		- (67/548/EEC)
Formulation 24	OD	Dow AgroSciences	Sulfonamides	Pyroxsulam	30 G/L	2.87%	+ (Dow Data)
			NA	Safener	90 G/L	8.6%	+ (EPA tolerance petition)
			NA	Emulsifier	40 G/L		- (MSDS)
			NA	Emulsifier	50 G/L		- (MSDS)
			NA	Emulsifier	20 G/L		- (MSDS)
			NA	Stabilizer	10 G/L		-
			NA	Suspending Aid	40 G/L		- (MSDS)
			NA	Diluent	767 G/L		- (MSDS)
Formulation 25	EC	Dow AgroSciences	Pyridine carboxylic acids	Clopyralid	23.34 G/L	2.21%	- (Dow Data)
			Pyridinyloxy acetic acid	Fluroxypyr-meptyl	86.455 G/L	8.19%	- (Dow Data)
			NA	MCPA-2-ethylhexyl	416.1 G/L	39.4%	- (Dow Data); + (EPA RED)
			NA	Solvent	38.54 G/L		- (MSDS)
			NA	Emulsifier	52.27 G/L		- (MSDS)
			NA	Emulsifier	428.205 G/L		- (MSDS)
			NA	Solvent	11.09 G/L		- (MSDS)
Formulation 26	EC	Dow AgroSciences	Pyridine carboxylic acids	Clopyralid	60 G/L	5.83%	- (Dow Data)
			Pyridinyloxy acetic acid	Triclopyr-butotyl	333.797 G/L	32.41%	+ (Dow Data)
			NA	Emulsifier	43.7 G/L		- (MSDS)
			NA	Emulsifier	29.2 G/L		- (MSDS)
			NA	Solvent	88.9 G/L		- (MSDS)
NA	Solvent	474.403 G/L		- (IUCLID Datasheet)			
Formulation 27	EC	Dow AgroSciences	Pyridinyloxy acetic acid	Fluroxypyr-meptyl	479.827 G/L	45.52%	- (Dow Data)
			NA	Emulsifier	78.46 G/L		- (MSDS)
			NA	Solvent	417.253 G/L		- (MSDS)
			NA	Emulsifier	78.46 G/L		- (MSDS)
Formulation 28	SC	Dow AgroSciences	Unclassified Herbicide	Diffufenican	100 G/L	9.48%	- (MSDS)
			Sulfonamides	Penoxsulam	15 G/L	1.42%	- (Dow Data)
			NA	Wetter	15 G/L		- (MSDS)
			NA	Dispersant	10 G/L		- (MSDS)
			NA	Thickener	10 G/L		- (MSDS)
			NA	Thickener	2 G/L		- (MSDS)
			NA	Biocide	1.5 G/L	0.14%	+ (MSDS)
			NA	Antifreeze	50 G/L		- (MSDS)
			NA	pH Buffer	0.462 G/L		- (MSDS)
			NA	Antifoam	5 G/L		- (MSDS)
NA	Water	846.038 G/L		-			
Formulation 29	SC	Dow AgroSciences	Dithiocarbamate	Mancozeb	462 G/L	35.95%	equivocal (EPA RED)
			Unspecified	Cymoxanil	70.03 G/L	5.45%	- (EPA fact sheet)
			NA	Anti-Caking Agent	29.81 G/L		- (MSDS)
			NA	Stabilizer	25.7 G/L		-
			NA	Stabilizer	12.85 G/L		-
			NA	Emulsifier	12.85 G/L		- (MSDS)
			NA	Dispersant	2.57 G/L		- (MSDS)
			NA	Thickener	1.29 G/L		- (MSDS)
			NA	Adjuvant	131.58 G/L		- (MSDS)
NA	Water	536.32 G/L		-			
Formulation 30	EW	Dow AgroSciences	Chloroacetamides	Acetochlor	450 G/L	41.82%	+(Dow Data)
			Pyridine Carboxylic Acids	Clopyralid-olamine	46.11 G/L	4.29%	- (Dow Data)
			Sulfonamides	Flumetsulam	14.0 G/L	1.3%	- (MSDS)
			NA	pH Buffer	2.37 G/L	0.22%	- (67/548/EEC)
			NA	Emulsifier	21.52 G/L	2%	- (IUCLID Datasheet)
			NA	Solvent	10.76 G/L	1%	- (IUCLID Datasheet)
			NA	Biocide	1.076 G/L	0.10%	+ (MSDS)
			NA	Thickener	1.076 G/L	0.10%	- (WHO)
			NA	Antifoam	1.61 G/L		- (MSDS)
			NA	Dispersant	5.38 G/L		- (MSDS)
			NA	Wetter	2.69 G/L		- (MSDS)
NA	Water	519.408 G/L		-			
Formulation 31	CS	Dow AgroSciences	Organophosphates	Chlorpyrifos	200 G/L	18.96%	Equivocal (Dow Data)
			NA	Encapsulating Agent	6.49 G/L		-
			NA	Dispersant	29.59 G/L		- (MSDS)
			NA	Biocide	1.055 G/L	0.10%	+ (MSDS)
			NA	Thickener	5.92 G/L		- (MSDS)
			NA	Thickener	.738 G/L		- (MSDS)
			NA	Dispersant	16.47 G/L		- (MSDS)
			NA	Solvent	120 G/L		- (IUCLID Datasheet)
NA	Water	674.737 G/L		-			

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
Formulation 32	EC	Dow AgroSciences	Dinitrophenol	Meptyldinocap	105 G/L	11.27%	+ (Dow Data)
			Triazole	Myclobutanil	45 G/L	4.83%	Equivocal (Dow Data)
			NA	pH Buffer	15 G/L		-(67/548/EEC)
			NA	Emulsifier	23 G/L		-(MSDS)
			NA	Emulsifier	68 G/L		-(MSDS)
			NA	Solvent	676 G/L		-(MSDS)
Formulation 33	SL	Dow AgroSciences	Pyridine carboxylic acids	Clopyralid-olamine	316.206 G/L	26.66%	-(Dow Data)
			Pyridine Carboxylic Acids	Picloram-olamine	100.251 G/L	8.45%	-(EPA RED)
			Pyridine Carboxylic Acids	Aminopyralid-olamine	51.8 G/L	4.37%	-(Dow Data)
			NA	Neutralizer	22 G/L		-(67/548/EEC)
			NA	Water, deionized	695.743 G/L		-
Formulation 34	SL	Dow AgroSciences	Pyridine Carboxylic Acids	Aminopyralid	30 G/L	2.95%	-(Dow Data)
			NA	Neutralizer	8.1 G/L		-(67/548/EEC)
			NA	Water	978.9 G/L		-
Formulation 35	SL	Dow AgroSciences	Pyridine Carboxylic Acids	Aminopyralid trisopropanolammonium	23.08 G/L	2.22 %	-(Dow Data) (Aminopyralid)
			Pyridinyloxy Acetic Acid	Triclopyr-triethylammonium	167.36 G/L	16.09 %	+ (EPA RED)
			NA	Neutralizer	1.14 G/L		-
			NA	Wetter	38 G/L		-(MSDS)
			NA	Antifoam	.19 G/L		-(MSDS)
			NA	Neutralizer	14.82 G/L		-(67/548/EEC)
			NA	Sequestrant	8.74 G/L		-(MSDS)
			NA	Water	786.67 G/L		-
Formulation 37	EC	Dow AgroSciences	Organophosphates	Chlorpyrifos	300 G/L	30%	Equivocal (Dow Data)
			Pyrethroids	Gamma-cyhalothrin	5.4 G/L	0.54%	+ (DOW Data)
			NA	Emulsifier	55 G/L	5.50%	-(MSDS)
			NA	Emulsifier	4.4 G/L	0.44%	-(MSDS)
			NA	Solvent	635.2 G/L	63.52%	-(IUCLID Datasheet)
Formulation 38	EC	Dow AgroSciences	Acetamides	Propanil	479.81 G/L	44.80%	-(EPA RED)
			NA	Solvent	362 G/L		-(MSDS)
			NA	Solvent	122.09 G/L		-(IUCLID Datasheet)
			NA	Emulsifier	107.1 G/L	10%	-(IUCLID Datasheet)
Formulation 39	OD	Dow AgroSciences	Sulfonamides	Pyroxsulam	45 G/L	4.31%	+ (DOW Data)
			NA	Safener	90 G/L	8.61%	+ (EPA tolerance petition)
			NA	Dispersant	6 G/L	0.57%	-(MSDS)
			NA	Dispersant	10 G/L		-(MSDS)
			NA	Emulsifier	80 G/L		-(MSDS)
			NA	Stabilizer	10 G/L	0.96%	-(MSDS)
			NA	Suspending Aid	27 G/L		-(MSDS)
			NA	Solvent	777 G/L		-(MSDS)
Formulation 40	OD	Dow AgroSciences	Sulfonamides	Pyroxsulam	12.8 G/L	1.20%	+ (DOW Data)
			NA	Safener	38.5 G/L	3.62%	+ (EPA tolerance petition)
			NA	Active Ingredient	2.14 G/L	0.20%	-(EPA Fact Sheet)
			NA	Active Ingredient	123.199 G/L	11.57%	-(Dow Data)
			NA	Dispersant	4 G/L	0.38%	-(MSDS)
			NA	Dispersant	10 G/L		-(MSDS)
			NA	Emulsifier	80 G/L		-(MSDS)
			NA	Stabilizer	10 G/L		-(MSDS)
			NA	Thickener	30 G/L		-(MSDS)
			NA	Solvent	754.361 G/L		-(MSDS)
Formulation 41	SE	Dow AgroSciences	Phenoxyacetic acids	2,4-D-ethylhexyl	271.493 G/L	25.61%	+ (DOW Data)
			Pyridine Carboxylic Acids	Aminopyralid	11.834 G/L	1.12%	-(Dow Data)
			Sulfonamides	Florasulam	5 G/L	0.47%	-(Dow Data)
			NA	Solvent	73.2 G/L		-(MSDS)
			NA	Emulsifier	60.4 G/L		-(MSDS)
			NA	Thickener	0.1 G/L		-(MSDS)
			NA	Biocide	0.9 G/L	0.08%	+ (MSDS)
			NA	Antifoam	2 G/L		-(MSDS)
			NA	Dispersant	0.2 G/L		-(MSDS)
			NA	Antifoam	0.02 G/L		-(MSDS)
			NA	Antifreeze	50.5 G/L		-(MSDS)
			NA	Suspending Aid	1.6 G/L		-(MSDS)
			NA	pH Buffer	0.1 G/L		-(MSDS)
			NA	Water	582.873 G/L		-
Formulation 42	SL	Dow AgroSciences	Phenoxyacetic Acids	2,4-D-trisopropanolamine	339 G/L	31.00%	-(EPA RED)
			Pyridine Carboxylic Acids	Aminopyralid trisopropanolammonium	17 G/L	1.52%	-(Dow Data) (Aminopyralid)
			NA	Neutralizer	4.962 G/L		-(MSDS)
			NA	Sequestrant	2.19 G/L		-(MSDS)
			NA	Antifreeze	38.26 G/L		-(MSDS)
			NA	Water	694.48 G/L		-
Formulation 43	CS	Dow AgroSciences	Unspecified Nitrication Inhibitor	Nitrapyrin	200 G/L	17.90%	+ (Dow Data)
			NA	Solvent	234.79 G/L	0.12%	+ (R43)
			NA	Solvent	99.65 G/L		-(MSDS)
			NA	Thickener	22.31 G/L		-(MSDS)
			NA	Dispersant	13.36 G/L		+ (MSDS)
			NA	Emulsifier	13.36 G/L	0.24%	-(MSDS)
			NA	Dispersant	2.67 G/L	1.19%	-(MSDS)
			NA	Thickener	2.14 G/L	8.87%	+ (DOW Data)
			NA	Biocide	1.34 G/L		-(MSDS)
			NA	Water	534.38 G/L		-

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
Formulation 44	SC	Dow AgroSciences	Sulfonamides	Penoxsulam	1.4 G/L	0.12%	- (Dow Data)
			Dinitroanilines	Oryzalin	478.9 G/L	40.38%	Equivocal (Dow Data)
			NA	Antifoam	5.92 G/L		- (MSDS)
			NA	Dispersant	71 G/L	5.99%	- (MSDS)
			NA	Antifreeze	47.3 G/L		- (MSDS)
			NA	Dispersant	17.7 G/L	1.49%	- (MSDS)
			NA	Antifreeze	71.1 G/L	5.99%	- (MSDS)
			NA	Biocide	.59 G/L	0.05%	+ (MSDS)
			NA	Suspending Aid	1.78 G/L	0.15%	- (WHO)
			NA	Carrier	8.88 G/L		- (MSDS)
			NA	Antifoam	.01 G/L		- (MSDS)
			NA	Suspending Aid	.01 G/L	0%	- (MSDS)
			NA	pH Buffer	.01 G/L		- (MSDS)
			NA	Dispersant	.11 G/L	0.01%	- (MSDS)
NA	Wetter	.03 G/L	0%	-(MSDS)			
NA	Water	481.32 G/L	40.58%	-			
Formulation 45	SC	Dow AgroSciences	Carboxanilide	Thifluzamide	80 G/L	7.53 %	- (Dow Data) (25%)
			Triazole	Fenbuconazole	100 G/L	9.42 %	- (Dow Data)
			NA	Adjuvant	51.4008 G/L		- (MSDS)
			NA	Wetter	12.8502 G/L		- (MSDS)
			NA	Biocide	1.062 G/L	0.10%	+ (MSDS)
			NA	Suspending Aid	4.248 G/L		- (MSDS)
			NA	Antifoam	5.32 G/L		- (MSDS)
			NA	Emulsifier	11.682 G/L		- (MSDS)
			NA	Dispersant	40.887 G/L		- (MSDS)
			NA	Water	754.55 G/L	71.05 %	-
Formulation 46	SC	Dow AgroSciences	Spinosoids	Spinetoram	60 G/L	5.87%	equivocal (+/- LLNA)
			NA	Dispersant	30.75 G/L		- (MSDS)
			NA	Wetter	20.5 G/L	2%	- (MSDS)
			NA	Antifreeze	61.4 G/L		- (MSDS)
			NA	Biocide	2 G/L	0.20%	+ (MSDS)
			NA	Thickener	2 G/L	0.20%	- (WHO)
			NA	Thickener	4.1 G/L		- (MSDS)
			NA	Antifoam	10 G/L	0.98%	- (MSDS)
			NA	Water	832.25 G/L	81.35%	-
Formulation 47	EW	Dow AgroSciences	Triazole	propiconazole	150 G/L	14.56%	+ (EPA RED)
			NA	Solvent	5.15 G/L		- (MSDS)
			NA	Emulsifier	20.6 G/L	2.00%	- (MSDS)
			NA	Emulsifier	15.45 G/L	0.50%	- (MSDS)
			NA	Antifreeze	51.5 G/L	5.00%	- (MSDS)
			NA	Emulsifier	51.5 G/L	1.50%	- (MSDS)
			NA	water		66.44%	-
			NA	Solvent	735.8 G/L	5.00%	-(IUCLID Datasheet)
Formulation 49	AL	Dow AgroSciences	Pyridinyloxy acetic acid	Triclopyr-butotyl	200.3 G/L	23.16%	+ (Dow Data)
			NA	Diluent	664.7 G/L	76.84 %	- (IUCLID Datasheet)
Formulation 50	SL	Dow AgroSciences	Glycines	Glyphosate dimethylammonium salt	608 G/L	50.54 %	- (EPA tolerance)
			NA	Adjuvant	90 G/L	7.48 %	- (MSDS for similar)
			NA	Water	505 G/L	41.98 %	-
Formulation 51	OD	Dow AgroSciences	Dinitroanilines	Pendimethalin	314 G/L	29.76 %	- (EPA RED)
			Sulfonamides	Pyroxsulam	5.4 G/L	0.51 %	+ (Dow Data)
			NA	Safener	5.4 G/L	0.51%	+ (EPA tolerance petition)
			NA	Stabilizer	5 G/L		- (MSDS)
			NA	Suspending Aid	20 G/L		- (MSDS)
			NA	Emulsifier	60 G/L		- (MSDS)
			NA	Emulsifier	10 G/L	0.95%	-(MSDS)
			NA	Emulsifier	30 G/L		- (MSDS)
			NA	Antifoam	1 G/L	0.09%	- (MSDS)
			NA	Solvent	604.2 G/L		- (MSDS)
Formulation 53	EW	Dow AgroSciences	Organophosphates	Chlorpyrifos	450 G/L	40.18 %	Equivocal (Dow Data)
			NA	Emulsifier	56 G/L	5 %	no Data
			NA	Antifreeze	28 G/L		- (MSDS)
			NA	Dispersant	134.5 G/L	12.01 %	- (MSDS)
			NA	Biocide	1.12 G/L	0.10%	+ (MSDS)
			NA	Antifoam	4.5 G/L		- (MSDS)
			NA	Solvent	224 G/L	20%	- (IUCLID Datasheet)
			NA	Water	221.88 G/L	19.81%	-
Formulation 54	SL	Dow AgroSciences	Glycines	Glyphosate dimethylammonium salt	608 G/L	49.88 %	- (EPA tolerance)
			NA	Adjuvant	100 G/L		- (MSDS)
			NA	Adjuvant	50 G/L		- (MSDS)
			NA	Water	461 G/L	37.82 %	-
Formulation 55	EW	Dow AgroSciences	Triazole	Myclobutanil	45 G/L	4.5 %	Equivocal (Dow Data)
			NA	Emulsifier	26.5 G/L	2.65 %	- (MSDS)
			NA	Emulsifier	18.5 G/L	1.85 %	-(MSDS)
			NA	Antifreeze	100 G/L		- (MSDS)
			NA	Solvent	200 G/L	20 %	-(IUCLID Datasheet)
			NA	Diluent	40.5 G/L		- (MSDS)
			NA	Emulsifier	5 G/L	0.50%	no Data
			NA	Water	561.5 G/L	56.15 %	-
			NA	Biocide	3 G/L	0.30%	+ (MSDS)
Formulation 56	SL	Dow AgroSciences	Unspecified Nitrification Inhibitor	Nitrapyrin	216 G/L	19.89%	+ (Dow Data)
			NA	impurities	24 G/L	2.21%	no Data
			NA	Stabilizer	14.4 G/L	1.33%	- (MSDS)
			NA	Solvent	831.6 G/L	76.57%	- (IUCLID Datasheet)
Oxyflourfen	EC	ECPA	NA	Oxyflourfen	240 G/L	NA	NA
			NA	Solvent	732 G/L	NA	NA

Substance Name	Formulation Type	Source	Material Family	Active Ingredient/Inert function	Conc.	Amount (%w/w)	Existing Sensitization Information
			NA	Surfactant	108 G/L	NA	NA
Quinoxifen/ cyproconazole	NA	ECPA	NA	Cyproconazole	80 G/L	NA	NA
			NA	Quinoxifen	75 G/L	NA	NA
			NA	Antifreeze	75 G/L	NA	NA
			NA	Thickener	10 G/L	NA	NA
			NA	Water/Other Components	842 G/L	NA	NA
Trifluralin	EC	ECPA	NA	Trifluralin	480 G/L	NA	NA
			NA	Solvent	500 G/L	NA	NA
			NA	Surfactant	60 G/L	NA	NA

Abbreviations: AL = Any other liquid; AOO = Acetone olive-oil (4:1); ACE = Acetone; Conc. = Concentration; CS = Capsule suspension; EC = Emulsion concentrate; ECPA = European Crop Protection Association; EEC=European Economic Community; EPA=U.S. Environmental Protection Agency; EW = Emulsion, oil in water; IUCLID=International Uniform Chemical Information Database; LLNA = Local Lymph Node Assay; OD = Oil dispersion; ME = Micro-emulsion; MSDS=Material Safety Data Sheet; NA = Not Available; RED=Reregistration Eligibility Decision; SC = Suspension concentrate; SE = Suspension emulsion; SI = Stimulation Index; SL = Soluble concentrate; TK = Technical concentrate; WHO=World Health Organization

¹ (+) = sensitizer, (-) = nonsensitizer