

Table 1
LANDSPREAD MANAGEMENT - CABOT CREAMERY
Cleaning/Sanitizing/Disinfecting/Defoaming Agents Use, Soil Application Rate and Expected Fate

Chemical Agents	CAS #	Function §	Total	Field	Agent Concentratio
			Daily Use	Loading¶	At Dilution
			—lbs/day—	—lbs/A—	
INORGANIC					
pentaoxide triphosphate	7758-29-4	C	75.95	20.62	91
✓ sodium carbonate	497-19-8	C	64.34	17.47	77
✓ sodium hydroxide*	1310-73-2	C	21.45	5.82	26
✓ phosphoric acid*	7664-38-2	C	22.05	5.99	26
✓ sodium chloride	7647-14-5	C	84.08	22.83	100
✓ sodium sulfate	7757-82-6	C	94.04	25.54	110
✓ hydrogen peroxide*	7722-84-1	S	3.61	0.98	4.3
✓ nitric acid*	7697-37-2	C,S	109.47	29.72	130
✓ sodium hypochlorite*	7681-52-9	S,C	6.04	1.66	7.2
			481	131	572
ORGANIC PORTION-READILY BIODEGRADABLE**					
✓ acetic acid*	64-19-7	C,S	21.74	5.90	26
✓ citric acid*	77-92-9	C	2.21	0.60	2.7
urea	57-13-6	C	1.06	0.29	1.3
✓ butoxyethanol	111-76-2	S	0.02	0.01	0.03
✓ propylene glycol	57-55-6	C	12.06	3.27	14
sodium caprylyl sulfonate	5324-84-5	S	9.13	2.48	11
✓ sodium xylenesulfonate	1300-72-7	C	2.20	0.60	2.6
✓ sodium C14-16 olefin sulfonate	68439-57-6	C	0.16	0.04	0.19
alcohols, C10-14, ethoxylated	66455-15-0	S	0.20	0.05	0.24
cocamine oxide	51788-90-7	C	3.10	0.84	3.7
poloxamer	2594628	C	3.15	0.85	3.8
cocamide DEA	68603-42-9	DF	2.28	0.62	2.7
dodecylbenzene sulfonic acid*	27176-87-0	C	0.57	0.16	0.69
sulfonic acids*, petroleum, sodium salts	68608-26-4	C	0.35	0.10	0.42
caprylic acid*	124-07-2	S	0.77	0.21	0.93
capric acid*	334-48-5	S	0.16	0.04	0.19
pelargonic (nonanonic) acid*	112-05-0	S	7.32	1.99	8.9
sodium gluconate	527-07-1	C	5.72	1.55	6.9
sodium polyacrylate	9003-04-7	C	3.94	1.07	4.7
✓ peroxyacetic acid*	79-21-0	S	1.18	0.32	1.4
			77.3	21.0	92.7
ORGANIC PORTION-NOT READILY BIODEGRADABLE**					
PPG-buteth	9038-95-3	S	0.16	0.04	0.19
1,2-ethanediamine, polymer w/ methyloxirane & oxirane	26316-40-5	C,S	0.56	0.15	0.67
etidronic acid, salt	2809-21-4	C,S	0.23	0.06	0.27
acetic acid (ethylenedinitrilo) tetra-, tetrasodium salt	64-02-8	C	13.10	3.56	16
phosphonic acid, (1-hydroxyethylidene) bis-, sodium salt	29329-71-3	C	1.86	0.50	2.2
1,2,4-butanetricarboxylic acid, 2-phosphono-, sodium salt	40372-56-5	C,S	0.40	0.11	0.48
			16.3	4.42	19.5
TOTALS			575	156	684

§ C-Cleaner, D-Disinfectant, DF-Defoamer, S-Sanitizer

¶ Assume 350 process days/year and annual application of 27,152 gallons/acre to farm fields.

* Mineral and organic acids/bases and oxidants which are neutralized to salts and are completely reduced, respectively during and post cleanup operations.

** Fate of organic constituents in water and soil in addition to dilution: P-precipitation/bonding to soil, D-Dissociation, N-Neutralization, BO-Biodecomposition.

£ LC 50 is concentration of chemical which kills 50% of sample population.