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APPENDICES

Appendix A: Stability data of fixolide and fixolide- β CD complexes

Table A.1 Percent remaining of fixolide and fixolide : β CD complex kept at 80 °C

Time (days)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
1	89.14±2.17	100.61±1.07
2	78.09±0.41	97.64±0.51
3	81.53±0.71	97.09±1.71
5	73.51±2.13	97.02±0.91
7	73.13±1.70	93.54±0.72

^a mean±SD , n = 3

Table A.2 Percent remaining of fixolide and fixolide : β CD complex kept at 50 °C

Time (days)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
3	95.54±3.75	98.23±2.22
6	91.41±1.87	97.97±0.63
10	84.89±1.39	96.57±2.23
14	83.62±1.15	98.79±0.28

^a mean±SD , n = 3

Table A.3 Percent remaining of fixolide and fixolide : β CD complex kept at 35 °C

Time (days)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
15	93.25±0.36	99.18±1.64
30	89.34±2.15	96.64±2.77
60	75.28±1.79	93.52±2.58
90	75.89±1.58	93.50±2.94
120	74.88±1.49	89.94±1.51

^a mean±SD , n = 3**Table A.4** Percent remaining of fixolide and fixolide : β CD complex exposure under UV light

Time (hours)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
2	96.43±1.26	99.15±1.35
6	93.65±1.30	98.31±0.27
12	88.66±0.67	97.51±1.20
18	84.37±1.85	99.59±0.77
24	83.97±0.89	97.22±3.20

^a mean±SD , n = 3

Appendix B: Solubility data of fixolide and fixolide- β CD complex

Table B.1 Percent dissolved of free fixolide and fixolide : β CD complex by co-precipitation method in 50 % aqueous ethanolic solution

Time (minutes)	Percent dissolved ^a	
	Fixolide	Fixolide : β CD
5	27.78 \pm 3.04	89.47 \pm 0.80
10	39.35 \pm 1.84	92.64 \pm 0.18
15	50.32 \pm 4.61	95.04 \pm 0.10
20	58.48 \pm 5.09	95.64 \pm 0.68
30	70.00 \pm 5.73	95.37 \pm 0.54
40	78.18 \pm 5.58	96.59 \pm 0.93
50	84.43 \pm 4.63	98.30 \pm 1.52
60	88.94 \pm 4.14	98.20 \pm 2.31

^a mean \pm SD , n = 3

Appendix C: Solubility data of fixolide and fixolide-methyl- β CD complex

Table C.1 Percent dissolved of free fixolide and fixolide : methyl- β CD complex by kneading method in 50 % aqueous ethanolic solution

Time (mins)	Percent dissolved ^a	
	Fixolide	Fixolide : methyl- β CD
5	27.78 \pm 3.04	92.59 \pm 4.66
10	39.35 \pm 1.84	94.71 \pm 4.25
15	50.32 \pm 4.61	95.59 \pm 3.60
20	58.48 \pm 5.09	98.00 \pm 1.37
30	70.00 \pm 5.73	97.22 \pm 0.87
40	78.18 \pm 5.58	97.77 \pm 0.80
50	84.43 \pm 4.63	98.75 \pm 0.60
60	88.94 \pm 4.14	98.87 \pm 1.56

^a mean \pm SD , n = 3

Appendix D: Stability data of fixolide and fixolide- β CD complex in fabric softener

Table D.1 Percent remaining of fixolide and fixolide : β CD complex kept at 80 °C

Time (days)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
1	81.83±1.92	96.12±3.37
2	80.89±6.48	89.88±8.55
3	74.07±7.32	84.36±14.16
5	69.63±2.26	86.88±4.02
7	49.71±2.81	86.63±4.00

^a mean±SD , n = 3

Table D.2 Percent remaining of fixolide and fixolide : β CD complex kept at 50 °C

Time (days)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00±0.00	100.00±0.00
3	88.05±6.09	98.76±6.83
6	83.86±6.53	98.91±2.33
10	62.34±3.72	97.05±0.97
14	47.36±6.78	91.90±3.50

^a mean±SD , n = 3

Table D.3 Percent remaining of fixolide and fixolide : β CD complex exposure under UV light

Time (hours)	Percent remaining ^a	
	Fixolide	Fixolide : β CD
0	100.00 \pm 0.00	100.00 \pm 0.00
2	90.76 \pm 8.10	99.29 \pm 1.15
6	90.57 \pm 4.24	95.15 \pm 2.49
12	88.83 \pm 3.04	97.99 \pm 2.44
18	84.80 \pm 1.35	91.09 \pm 1.74
24	82.86 \pm 3.17	88.66 \pm 0.90

^a mean \pm SD , n = 3

Appendix E: The “Comfort” formulation of fabric softener (Hong Huat Co., Ltd.)

Materials	%
Quat Hi-Q ^a	5.00
Deionized water	94.00
Fragrance (comfort type) ^b	1.00

^a Trade name of ditallow dimethyl ammonium chloride (DTDMAC)

^b Comfort type to be composed of various fragrances (Thai-China Flavors and Fragrances Industry Co., Thailand) as follow:

Benzyl acetate

H.C.A (hexylcinnamaldehyde)

Iso Amyl salicylate

Benzyl salicylate-A

Vertenex

Fixolide (the main ingredient in comfort type)

Musk concentrate

Iso E Super

Galaxolide

VITAE

Miss Pucharin Chittiteeranon was born on October 16th 1975, in Phetchaburi Province, Thailand. She got a Bachelor Degree of Environmental Science from Faculty of Sciences, Silpakorn University in 1998.

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