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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

FILE COPY

February 6, 1987

MEMORANDUM

SUBJECT: Transmittal of Exposure Assessment of cyfluthrin
(Tempo 2®, Baythroid®)

FROM Yuen-shaung NG, Ph.D., Entomologist *Y S NG*
Science Support Branch
Benefits and Use Division (TS-768-C)

TO: George T. LaRocca
Product Management (15)
Registration Division (ts-767-C)

THRU: E. David Thomas, Ph.D., Chief *ET*
Animal Biology and Entomology Section
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Benefits and Use Division (TS-768-C)

Attached are two copies of the Projected parameters and data for application exposure for applying cyfluthrin (Tempo 2®, Baythroid®) to in and round buildings and structures.

If I can be of further assistance, please do not hesitate to call me at 557-2991.

Attachment

cc: Lunchick, Curt, EAB
Arnold Apselin, SSB

*****PROJECTED PARAMETERS AND DATA FOR APPLICATION EXPOSURE FOR
 APPLYING CYFLUTHRIN (TEMPO 2, BATHROID) TO IN AND ROUND
 BULIDINGS AND STRUCTURES

NG, 2-6-86

*** PARAMETERS ***	*** DATA ***	*REF*
EXPOSURE ASSESSMENT FOR -----	Cyfluthrin	# 1
TRADEMARK -----	Tempo 2, Baythroid	# 1
SITE -----	In and around buildings and structures	# 1
PEST(S) -----	Household insects (e.g. cockroaches)	# 1
STATE(S) -----	Nation wide	# 1
FORMULATION(S) -----	2 EC	# 1
Label signal word -----	Warning	# 1
Amount applied (a.i.) -----	0.0044 lb/gal water	# 1
Season applied -----	apply as needed	# 1
RESTRICTIONS AND LIMITATION -----	For use by pest control operators and profes- sional applicators	# 1
Protection clothing -----	Goggles, face shield, safety glasses	# 1
Others -----	Toxic to aquatic organism	# 1
*** TREATED AREA ***		
* Assumption *		
1. House (3 bed room, family room living room, dining room, 1.5 bath and kitchen). Avg. -----	1400.00	sq/ft # 3
2. Apartment (2 bed room, living room, dining room, 1 bath and kitchen), Avg.-----	1000.00	sq/ft # 2,3
3. Major treated area (% of sq/ft)		
Kitchen -----	8.00	% # 4
Bath room -----	7.00	% # 4

Minor treated area

Bed/living/family/dinning
rooms etc. ----- 85.00 % # 4

4. Insecticide applied (%)

Major treated area ----- 80.00 % # 2

Total sprayed feet ----- 202.00 ft # 4,7

Minor treated area ----- 20.00 % # 2

Total sprayed feet ----- 50.00 ft # 4,7

**** TYPE, METHOD, AND TIME OF APPLICATION ****

Hand sprayer capacity (avg.) -- 1.00 gal # 1,5

Finished spray (running ft) --- 252.00 ft # 4,7

Finished spray (vol) ----- 1.00 pt # 2

PSI ----- 30(20-50) # 5

*** TIME DURATION FOR APPLICATION ***

Total application time (spray, ferry, furniture moving ect.)

1. House avg. ----- 30.00 min # 2,6

2. Apartment avg. ----- 15.00 min # 2,6

Actural spray time

House/apartment ----- 5-10 min # 6

House/apartment avg. ----- 6.00 min # 6

Time for refill a sprayer ----- 5.00 min # 2

Time for pumping the sprayer
during spray ----- 1.50 min # 2

Hours/day suitable for
operator (approx.) ----- 8.00 hrs # 2,6

Days/year suitable for
operator (approx.) ----- 220.00 day # 2,6

*** TOTAL EXPOSURE TIME FOR OPERATOR/DAY/YEAR ***

* Assumption *

1. Assumed that Tempo 2 is the only insecticide use year round.

**** HOUSE ****

No. of house spray:			
Day -----	16.00		# 4
Year -----	3520.00		# 4
Total sprayed feet/yard			
Day -----	4032.00	ft	# 4
Year -----	295680.00	yd	# 4
No. of sprayer refill			
Day -----	2.00		# 4
Year -----	440.00		# 4
Total time to refill sprayers			
Day -----	10.00	min	# 4
Year -----	36.67	hr	# 4
Total time for pumping the sprayers during spray			
Day -----	3.00	min	# 4
Year -----	11.00	hr	# 4
Time for ferry, furnitures moving etc.			
Day -----	384.00	min	# 4
Year -----	1408.00	hr	# 4
Actual spray time ***			
Day -----	96.00	min	# 4
Year -----	352.00	hr	# 4

**** APARTMENT ****

No. of apartment spray:			
Day -----	32.00		# 4
Year -----	7040.00		# 4
Toatl sprayed feet/yard			
Day -----	8064.00	ft	# 4
Year -----	591360.00	yd	# 4
No. of sprayer refill			
Day -----	4.00		# 4
Year -----	880.00		# 4
Total time to refill sprayers			
Day -----	20.00	min	# 4
Year -----	73.33	hr	# 4
Total time for pumping the sprayers during spray			
Day -----	6.00	min	# 4
Year -----	22.00	hr	# 4

Time for ferry, furnitures
moving etc.

Day -----	288.00	min	# 4
Year -----	1056.00	hr	# 4

Actual spray time ***

Day -----	192.00	min	# 4
Year -----	704.00	hr	

***** REFERENCE *****

1. Mobey 1986 proposed label for Tempo 2, received 2-6-1986
2. Ng, 1987 estimates
3. House Beautiful's Houses and plans. Spring Edition 1985
Hearst Corporation
4. Calculated by Ng, 1987
5. Hand sprayers and dusters 1970, USDA
6. QUA: Propoxur (047802), by David Brassard,
EPA, 1986
7. Sear's catalog, spring summer centennial edition, 1986