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

FEB 25 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Dietary Exposure Analysis for the Proposed Uses of Chlorpyrifos on Lettuce (PP#4F03132), Grapes (PP#3F2872) and Tomatoes (PP#4F03008)

FROM: Stephen A. Schaible *Stephen A. Schaible*
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TO: Dennis Edwards, PM 19
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Registration Division (7505C)

THROUGH: James P. Kariya *Kariya* *W. J. ...*
DRES/SAB
Health Effects Division (7509C)

Action Requested

Provide an analysis assessing dietary exposure and risk resulting from the proposed use on lettuce, the proposed use on grapes nationally (a regional registration on grapes already exists) and the proposed increase in tolerance for tomatoes. This analysis will incorporate updated percent crop treated estimates supplied by BEAD in an E. Brandt memorandum dated 9/30/92, and anticipated residues for grapes, peppers, tomatoes, and lettuce supplied by CBTS in N. Dodd memoranda all dated 9/27/93.

Discussion

1. Toxicological Endpoint: Dietary exposure calculated in this analysis was compared to a Reference Dose (RfD) of 0.003 mg/kilogram body weight/day, based on a No Observed Effect Level (NOEL) of 0.03 mg/kg bwt/day and an uncertainty factor of 10 to account for intraspecies variability (G.Ghali memorandum, 11/23/93). The NOEL is taken from a 20 day feeding study in humans which demonstrated as the effect decreased plasma cholinesterase.

No conclusion has been reached concerning neurotoxicity or developmental toxicity expected from acute dietary exposure to chlorpyrifos. The HED RfD Peer Review Committee has determined that developmental as well as subchronic neurotoxicity studies



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contains at least 50% recycled fiber

should be conducted (G. Ghali, 11/23/93).

2. Residue Information: Food uses evaluated in this analysis were the published tolerances for chlorpyrifos listed in the Tolerance Index System (TIS); a pending tolerance on sugarcane; the proposed uses on lettuce at 1.0 ppm (PP#4F3132) and grapes at 1 ppm (PP#3F2872); and the proposed increase in the tolerance for tomatoes from 0.5 ppm to 1.0 ppm (PP#4F3008). It should be noted that the proposed use on grapes was included in the analysis despite the fact that the specific tolerance of 1 ppm has not yet been requested by the petitioner. All data deficiencies for this permanent tolerance have been resolved, but a revised Section F proposing the tolerance of 1 ppm (instead of the 0.8 ppm previously requested) is required before CBTS can recommend in favor of the proposed use. A Debra Edwards' memorandum to CBTS staff dated 5/12/93 suggests the policy of initiating DRES runs for petitions where residue data are sufficient but CBTS recommendation has not been made. While specific language recommending the DRES run is not found in N. Dodd's 9/27/93 memo on grapes, CBTS does support the decision to include the proposed tolerance on grapes of 1 ppm in the DRES analysis (personal communication, Debra Edwards, 2/1/94). A pending tolerance with expiration date for chlorpyrifos on pears, nectarines, peaches and plums (fresh prunes) was changed to published for this analysis, reflecting the publication of the final rule for this petition (PP#4E4288) in the Federal Register. All tolerance levels used in this analysis reflect the chlorpyrifos parent only; tolerances for chlorpyrifos listed under 40 CFR 180.342 and 185.1000 (1992 edition) were not used in the analysis as most do not yet reflect the separation of 3,5,6-trichloro-2-pyridinol (TCP) from chlorpyrifos in the tolerance expression.

Updated percent crop treated information was supplied by BEAD in an E. Brandt memorandum dated 9/30/92; this information replaces percent of crop treated estimates supplied in an E. Brandt Preliminary Quantitative Usage Analysis (PQUA) dated 12/19/88. The high end estimates of percent of crop treated in Table 1 of the 9/30/92 memo were the values used in the DRES analysis. These estimates are sufficient to cover anticipated market growth over the next five years (E. Brandt, 9/30/92). The percent crop treated estimate for onions was applied to dry bulb onions only, as that is the commodity group for which a tolerance exists in TIS; specifically, this estimate was mapped to "onions, dry bulb", "onions, dry", "shallots", and "garlic", the DRES commodities to which the classification "dry bulb onions" applies, according to CFR 180.1(h) and DRES commodity maps. At the suggestion of BEAD, the percent crop treated estimate for "dry beans" was applied also to succulent beans in the DRES file, instead of assuming the default DRES value of 100 percent. As usage on succulent beans did not show up in the survey data from which BEAD created their estimates, it is reasonable to assume that usage is on less than 5% of succulent beans (personal communication with E. Brandt, 1/25/94). Estimates for cucumbers, figs, pumpkins and okra were not supplied in the most recent BEAD memo, though estimates exist in the DRES file from the 12/19/88

tolerances are greater than the existing uses in the file. So that information about the published tolerances could be preserved and the incremental increase in exposure due to the proposed new tolerances could be accurately characterized, multiple listings were entered in the DRES file for these uses. For the proposed tolerance on lettuce, an incremental increase of 0.9 ppm was added to the file on top of the existing food handling establishment tolerance of 0.1 ppm, so that the sum of these two values equals the proposed tolerance of 1.0 ppm; for grapes, an incremental increase of 0.5 ppm was added to the existing tolerance of 0.5 ppm, resulting in a sum equal to the proposed tolerance. And for tomatoes, a residue value of 0.5 ppm was assigned to represent the proposed increase in tolerance in the DRES file, so that the sum of the existing tolerance of 0.5 ppm and the proposed increase equals the proposed new tolerance of 1.0 ppm.

ARs for these commodities were handled in a similar fashion. For lettuce, where an AR of 0.005 ppm exists in the file (associated with the food handling establishment tolerance of 0.1 ppm), a value of 0.235 ppm was added to the AR column for the proposed use, so that the sum of the two AR entries equals the recommended AR of 0.24 ppm for lettuce. For tomatoes, each of the recommended AR values (0.19 ppm for tomatoes, 0.006 ppm for tomato juice, and 0.02 ppm for tomato puree, paste, and catsup) were evenly split between the existing use entry and the proposed increase in tolerance entry, since the existing tolerance and the proposed increase equal each other (0.5 ppm). For example, each of the two entries for "tomatoes-catsup" was assigned an AR value of 0.01 ppm, so that the two entries summed equal the recommended AR of 0.02 ppm. This same method of evenly splitting the recommended ARs between the existing and recommended uses was done for grapes.

A summary of the residue information used in this analysis is attached as Attachment 1.

3. Exposure Analysis: The DRES routine chronic exposure analysis used tolerance level residues and 100 percent crop treated to estimate the Theoretical Maximum Residue Contribution (TMRC) for the overall U.S. population and 22 population subgroups. Anticipated residues and percent crop treated refinements were used to calculate the Anticipated Residue Contribution (ARC) for those same subgroups. The ARC is considered the more accurate estimate of chronic dietary exposure. A summary of the TMRCs, ARCs, and their representations as percentages of the RfD for the U.S. population and the 22 subgroups is attached as Attachment 2. In the absence of recommendation on whether or not an acute exposure analysis for chlorpyrifos is appropriate, risk from acute exposure to this chemical is not being characterized at this time.

The ARCs for the U.S. population and the highest exposed subgroup (non-nursing infants less than 1 yr) from published and proposed uses of chlorpyrifos are listed in the table on the next page. Units for the ARC estimates are mg/kg bwt/day.

PQUA; at the recommendation of E. Brandt, these "old" estimates of percent crop treated were left in the file, instead of assuming the DRES default (personal communication, E. Brandt, 1/18/94). The percent crop treated estimate for lettuce was not entered into the DRES file, as it is a market projection of a use not yet published in the Federal Register. For the same reason, the percent crop treated estimate for grapes in Brandt's memo was not assumed for the proposed tolerance on grapes; the percent crop treated estimate in Brandt's memo reflects the regional use of chlorpyrifos on grapes, instead of the proposed national use. In addition, percent of crop imported estimates associated with the soon to be published tolerance with expiration date on pears, nectarines, peaches and plums were left in the file associated with those entries specific to the pending tolerance. Percent crop treated estimates for these commodities supplied in Brandt's most recent memo were assigned only to the published tolerance entries in the file and not to the pending entries.

Anticipated residues (ARs) used in this analysis for apples, citrus and poultry were supplied by Dietary Exposure Branch (now the Chemistry Branches in HED) in a Debra Edwards memo dated 12/15/88. ARs for lettuce, grapes, tomatoes and peppers were supplied in four N. Dodd memos to Dennis Edwards, all dated 9/27/93.

A tolerance of 0.1 ppm exists in 185.1000 for the use of chlorpyrifos as a crack and crevice treatment in food handling establishments; an anticipated residue of 0.005 ppm (representing the limit of detection) for this use was supplied in a M. Flood memo dated 6/28/90. This tolerance and AR were assumed for every raw agricultural commodity (RAC) in DRES not already having a tolerance. If a tolerance existed for a RAC prior to the inclusion in the file of the food handling establishment tolerance, that was the residue used in the analysis, regardless of whether or not the food handling establishment tolerance was the higher value. In general, the assumption is being made that exposures from food use tolerances and the food handling establishment tolerance are not additive; that is, exposure in the analysis should reflect one use or the other, but not the sum of both uses.

The proposed increase in tolerance for tomatoes (from 0.5 ppm to 1.0 ppm) was already present in the DRES file prior to this analysis, evidently entered during the analyses described in J. Bazuin's memo to Dennis Edwards dated 2/19/93. However, in the last two analyses (J. Wintersteen to H. Jamerson, 10/23/93; S. Schaible to Dennis Edwards, 12/6/93), the entries for the proposed increase have been incorrectly mislabelled as being "published" instead of "proposed", as well as being associated in the file with PP#4F2999 instead of the correct petition number of PP#4F3008. Though this means that chronic risk from published uses has been slightly overestimated (and risk from pending uses underestimated) in the last two analyses, overall chronic exposure from food uses of this chemical in both of these analyses was suitably below the RfD to be of no concern, regardless of the error.

In the cases of lettuce, grapes, and tomatoes, the proposed

ARC Exposure Estimates for Chlorpyrifos				
Commodity Type	U.S. population		Non-nursing inf.	
	(ARC)	(%RfD)	(ARC)	(%RfD)
Published uses	0.001031	34%	0.002838	95%
Proposed Uses				
- lettuce	0.000008	1.8%	0.000001	0.03%
- tomatoes	0.000053	0.3%	0.000007	0.2%
- grapes	0.000006	0.2%	0.000004	0.1%
Total	0.001099	37%	0.002850	95%

There are several commodities for which lower tolerances reflecting the crop-specific usage of chlorpyrifos were used in the analysis instead of the food handling establishment tolerance of 0.1 ppm. Due to the fact that for these commodities the higher legally allowable residue of 0.1 ppm was not used in the analysis, the possibility exists that the calculated TMRCs could be underestimates of exposure. However, underestimation of exposure does not occur in the calculation of the ARCs, since tolerance level residues used to calculate exposure for these commodities are greater than the anticipated residue value of 0.005 ppm which was supplied as a refinement to the food handling establishment tolerance (the higher of the two applicable residue values was used in the ARC calculations, but not the TMRC calculations).

Due to the assumptions that all foods included in DRES through the food handling establishment tolerance contain chlorpyrifos, and not just those foods actually consumed or prepared at food handling establishments; and the assumption that 100% of all foods present in the DRES file through the food handling establishment tolerance contain residues of chlorpyrifos, the exposure and risk estimates arrived at in this analysis are likely to be overestimates. Though these scenarios are not likely, DRES feels it is more responsible to regulate on the possibility of exposure, even if it results in probable overestimation, until some means of refining the estimate can be achieved.

Despite these assumptions which probably result in conservative estimation of exposure and risk, none of the exposures for any of the population subgroups exceeds the RfD. Given the exposure values calculated in this analysis, it appears that chronic dietary risk from the existing, pending, and proposed uses of chlorpyrifos is not of concern.

Attachments

cc: DRES, Tox 2, CBTS, Caswell # 219AA

Attachment 1

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

DATE: 02/18/94

PAGE: 1

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
01002AA	BLACKBERRIES	10 RAW-FRESH OR NFS	7E3557	P	1.000000	1.000000	100.00	1.000000
01002AA	BLACKBERRIES	21 COOKED-NFS	7E3557	P	1.000000	1.000000	100.00	1.000000
01002AA	BLACKBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	7E3557	P	1.000000	1.000000	100.00	1.000000
01003AA	BOYSENBERRIES	10 RAW-FRESH OR NFS	7E3557	P	1.000000	1.000000	100.00	1.000000
01004AA	DEWBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	7E3557	P	1.000000	1.000000	100.00	1.000000
01005AA	LOGANBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	7E3557	P	1.000000	1.000000	100.00	1.000000
01006AA	RASPBERRIES	10 RAW-FRESH OR NFS	7E3557	P	1.000000	1.000000	100.00	1.000000
01006AA	RASPBERRIES	15 RAW-FRESH OR CANNED	7E3557	P	1.000000	1.000000	100.00	1.000000
01006AA	RASPBERRIES	31 COOKED-FRESH OR CANNED	7E3557	P	1.000000	1.000000	100.00	1.000000
01006AA	RASPBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	7E3557	P	1.000000	1.000000	100.00	1.000000
01006AA	RASPBERRIES	70 RAW-FROZEN	7E3557	P	1.000000	1.000000	100.00	1.000000
01007AA	YOUNGBERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
01009AA	BLUEBERRIES	10 RAW-FRESH OR NFS	7E3466	P	1.000000	1.000000	100.00	1.000000
01009AA	BLUEBERRIES	21 COOKED-NFS	7E3466	P	1.000000	1.000000	100.00	1.000000
01009AA	BLUEBERRIES	22 COOKED-FRESH-BAKED	7E3466	P	1.000000	1.000000	100.00	1.000000
01009AA	BLUEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	7E3466	P	1.000000	1.000000	100.00	1.000000
01010AA	CRANBERRIES	10 RAW-FRESH OR NFS	2E2682	P	1.000000	1.000000	42.00	0.420000
01010AA	CRANBERRIES	21 COOKED-NFS	2E2682	P	1.000000	1.000000	42.00	0.420000
01010AA	CRANBERRIES	31 COOKED-FRESH OR CANNED	2E2682	P	1.000000	1.000000	42.00	0.420000
01010AA	CRANBERRIES	15 RAW-FRESH OR CANNED	2E2682	P	1.000000	1.000000	42.00	0.420000
01010AA	CRANBERRY-JUICE	31 COOKED-FRESH OR CANNED	2E2682	P	1.000000	1.000000	42.00	0.420000
01011AA	CURRANTS	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
01011AA	CURRANTS	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
01011AA	CURRANTS	22 COOKED-FRESH-BAKED	6H5505	P	0.100000	0.005000	100.00	0.005000
01012AA	ELDERBERRIES	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
01013AA	GOOSEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	6H5505	P	0.100000	0.005000	100.00	0.005000
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	2E2584	P	0.500000	0.120000	18.00	0.021600
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	3F2872	N	0.500000	0.120000	100.00	0.120000
01014AA	GRAPES-FRESH	21 COOKED-NFS	2E2584	P	0.500000	0.120000	18.00	0.021600
01014AA	GRAPES-FRESH	21 COOKED-NFS	3F2872	N	0.500000	0.120000	100.00	0.120000
01014AA	GRAPES-FRESH	31 COOKED-FRESH OR CANNED	2E2584	P	0.500000	0.120000	18.00	0.021600
01014AA	GRAPES-FRESH	31 COOKED-FRESH OR CANNED	3F2872	N	0.500000	0.120000	100.00	0.120000
01014AA	GRAPES-RAISINS	10 RAW-FRESH OR NFS	2E2584	P	0.500000	0.020000C	18.00	0.003600
01014AA	GRAPES-RAISINS	10 RAW-FRESH OR NFS	3F2872	N	0.500000	0.020000C	100.00	0.020000
01014AA	GRAPES-RAISINS	21 COOKED-NFS	2E2584	P	0.500000	0.020000C	18.00	0.003600
01014AA	GRAPES-RAISINS	21 COOKED-NFS	3F2872	N	0.500000	0.020000C	100.00	0.020000
01014AA	GRAPES-RAISINS	22 COOKED-FRESH-BAKED	2E2584	P	0.500000	0.020000C	18.00	0.003600
01014AA	GRAPES-RAISINS	22 COOKED-FRESH-BAKED	3F2872	N	0.500000	0.020000C	100.00	0.020000
01014AA	GRAPES-JUICE	10 RAW-FRESH OR NFS	2E2584	P	0.500000	0.005000C	18.00	0.000900
01014AA	GRAPES-JUICE	10 RAW-FRESH OR NFS	3F2872	N	0.500000	0.005000C	100.00	0.005000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF		
Chlorpyrifos	Human 20 day feeding	Decreased plasma ChE.	0.0300	-->10	No data gaps.	WHO last reviewed 1982
Caswell #219AA	NOEL= 0.0300 mg/kg	No other systemic effects identified.	0.00	0.003000		HED complete 02/21/86
CAS No. 2921-88-2	LEL= 0.1000 mg/kg	No evidence of carcinogenicity in rats or mice.	0.00	0.003000		EPA verified 03/11/86
A.I. CODE: 059101	OMCO: E (Rfd/PR Committee)					HED complete 03/04/88
CFR No. 180.342						Rfd/PR reviewed 09/09/93
						On IRIS.

FOOD CODE	FOOD	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
01014JA	GRAPES- JUICE	2E2584	P 0.500000	0.005000C		18.00	0.000900
01014JA	GRAPES- JUICE	3F2872	N 0.500000	0.005000C		100.00	0.005000
01014JA	GRAPES- JUICE	2E2584	P 0.500000	0.005000C		18.00	0.000900
01014JA	GRAPES- JUICE	3F2872	N 0.500000	0.005000C		100.00	0.005000
01015AA	HUCKLEBERRIES	6H5505	P 0.100000	0.005000		100.00	0.005000
01016AA	STRAWBERRIES	0E2283	P 0.200000	0.200000		30.00	0.060000
01016AA	STRAWBERRIES	0E2283	P 0.200000	0.200000		30.00	0.060000
01016AA	STRAWBERRIES	0E2283	P 0.200000	0.200000		30.00	0.060000
0102AAA	JUNE BERRY	6H5505	P 0.100000	0.005000		100.00	0.005000
01025AA	MULBERRIES	6H5505	P 0.100000	0.005000		100.00	0.005000
02001AA	CITRUS CITRON	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02002AA	GRAPEFRUIT-UNSP	1F2575	P 1.000000	1.000000		39.00	0.390000
02002AB	GRAPEFRUIT-PULP	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02002JA	GRAPEFRUIT- JUICE	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02003AA	KUMQUATS	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02004AA	LEMONS-UNSPEC	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02004AA	LEMONS-UNSPEC	1F2575	P 1.000000	1.000000		39.00	0.390000
02004AB	LEMONS-PULP	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02004AB	LEMONS-PULP	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02004HA	LEMONS-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02004HA	LEMONS-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02004JA	LEMONS- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02004JA	LEMONS- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02004JA	LEMONS- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02005AA	LIMES-UNSPEC	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02005AB	LIMES-PULP	1F2575	P 1.000000	1.000000		39.00	0.390000
02005HA	LIMES-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02005JA	LIMES- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02005JA	LIMES- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02005JA	LIMES- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02006AA	ORANGES-UNSPEC	1F2575	P 1.000000	1.000000		39.00	0.390000
02006AB	ORANGES-PULP	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02006HA	ORANGES-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02006HA	ORANGES-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02006HA	ORANGES-PEEL	1F2575	P 1.000000	1.000000		39.00	0.390000
02006JA	ORANGES- JUICE	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (RfD/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP RfD= 0.003000 EPA RfD= 0.003000	No data gaps.	WHO Last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86. HED complete 03/04/88 RfD/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
02006JA	ORANGES-JUICE	31 COOKED-FRESH OR CANNED	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
02007AA	TANGELOS	10 RAW-FRESH OR NFS	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02008AA	TANGERINES	10 RAW-FRESH OR NFS	1F2575	P 1.000000	0.100000	PROCESS. STUDY	39.00	0.039000
02008JA	TANGERINE-JUICE	15 RAW-FRESH OR CANNED	1F2575	P 1.000000	0.050000C	PROCESS. STUDY	39.00	0.019500
03001AA	ALMONDS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		26.00	0.052000
03001AA	ALMONDS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		26.00	0.052000
03001AA	ALMONDS	22 COOKED-FRESH-BAKED	4F2999	P 0.200000	0.200000		26.00	0.052000
03002AA	BRAZIL NUTS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03002AA	BRAZIL NUTS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03003AA	CASHEWS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03003AA	CASHEWS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03004AA	CHESTNUTS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03005AA	FILBERTS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		80.00	0.160000
03005AA	FILBERTS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		80.00	0.160000
03005AA	FILBERTS	22 COOKED-FRESH-BAKED	4F2999	P 0.200000	0.200000		80.00	0.160000
03006AA	HICKORY NUTS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03007AA	MACADAMIA NUTS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		100.00	0.200000
03008AA	PECANS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		50.00	0.100000
03008AA	PECANS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		50.00	0.100000
03008AA	PECANS	22 COOKED-FRESH-BAKED	4F2999	P 0.200000	0.200000		50.00	0.100000
03008AA	PECANS	23 COOKED-FRESH-BOILED	4F2999	P 0.200000	0.200000		50.00	0.100000
03009AA	PECANS	62 COOKED-FRESH OR FROZEN-BAKED	4F2999	P 0.200000	0.200000		50.00	0.100000
03009AA	WALNUTS	10 RAW-FRESH OR NFS	4F2999	P 0.200000	0.200000		55.00	0.110000
03009AA	WALNUTS	21 COOKED-NFS	4F2999	P 0.200000	0.200000		55.00	0.110000
03009AA	WALNUTS	22 COOKED-FRESH-BAKED	4F2999	P 0.200000	0.200000		55.00	0.110000
03010AA	BUTTER NUTS	00 NOT SPECIFIED (NO CONSUMPTION)	4F2999	P 0.200000	0.200000		100.00	0.200000
03011AA	PISTACHIO NUTS	10 RAW-FRESH OR NFS	4F2999	P 0.100000	0.005000		100.00	0.005000
03013AA	BEECHNUTS	00 NOT SPECIFIED (NO CONSUMPTION)	4F2999	P 0.200000	0.200000		100.00	0.200000
04001AA	APPLES-FRESH	10 RAW-FRESH OR NFS	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001AA	APPLES-FRESH	21 COOKED-NFS	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001AA	APPLES-FRESH	31 COOKED-FRESH OR CANNED	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001AA	APPLES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001DA	APPLES-DRIED	10 RAW-FRESH OR NFS	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001DA	APPLES-DRIED	22 COOKED-FRESH-BAKED	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001DA	APPLES-DRIED	62 COOKED-FRESH OR FROZEN-BAKED	2F2620	P 1.500000	0.500000	FIELD TRIALS	70.00	0.350000
04001JA	APPLES-JUICE	15 RAW-FRESH OR CANNED	2F2620	P 1.500000	0.100000C	PROCESS. STUDY	70.00	0.070000
04001JA	APPLES-JUICE	31 COOKED-FRESH OR CANNED	2F2620	P 1.500000	0.100000C	PROCESS. STUDY	70.00	0.070000
04002AA	CRABAPPLES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
04003AA	PEARS-FRESH	10 RAW-FRESH OR NFS	6F1786	P 0.010000	0.010000		25.00	0.002500
04003AA	PEARS-FRESH	10 RAW-FRESH OR NFS	4E04288	P 0.050000	0.050000		5.00	0.002500

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

DATE: 02/18/94

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CHEMICAL Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	STUDY TYPE Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	EFFECTS Decreased plasma ChE. No other systemic effects identified. No evidence of carcinog- enicity in rats or mice.	REFERENCE DOSES	DATA GAPS/COMMENTS No data gaps.	STATUS WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.
			ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000		

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
04003AA	PEARS-FRESH	31 COOKED-FRESH OR CANNED	6F1786	P	0.010000		25.00	0.002500
04003AA	PEARS-FRESH	31 COOKED-FRESH OR CANNED	4E04288	P	0.050000		5.00	0.002500
04003AA	PEARS-FRESH	51 COOKED-CANNED	6F1786	P	0.010000		25.00	0.002500
04003AA	PEARS-FRESH	51 COOKED-CANNED	4E04288	P	0.050000		5.00	0.002500
04003AA	PEARS-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	6F1786	P	0.010000		25.00	0.002500
04003AA	PEARS-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	4E04288	P	0.050000		5.00	0.002500
04003DA	PEARS-DRIED	10 RAW-FRESH OR NFS	6F1786	P	0.010000		25.00	0.002500
04003DA	PEARS-DRIED	10 RAW-FRESH OR NFS	4E04288	P	0.050000		5.00	0.002500
04003DA	PEARS-DRIED	21 COOKED-NFS	6F1786	P	0.010000		25.00	0.002500
04003DA	PEARS-DRIED	21 COOKED-NFS	4E04288	P	0.050000		5.00	0.002500
04004AA	QUINCES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.050000		100.00	0.005000
05001AA	APRICOTS-FRESH	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
05001AA	APRICOTS-FRESH	31 COOKED-FRESH OR CANNED	6H5505	P	0.100000		100.00	0.005000
05001DA	APRICOTS-DRIED	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
05001DA	APRICOTS-DRIED	22 COOKED-FRESH-BAKED	6H5505	P	0.100000		100.00	0.005000
05002AA	CHERRIES-FRESH	10 RAW-FRESH OR NFS	1E2529	P	1.000000		6.00	0.060000
05002AA	CHERRIES-FRESH	21 COOKED-NFS	1E2529	P	1.000000		6.00	0.060000
05002AA	CHERRIES-FRESH	31 COOKED-FRESH OR CANNED	1E2529	P	1.000000		6.00	0.060000
05002AA	CHERRIES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	1E2529	P	1.000000		6.00	0.060000
05002JA	CHERRIES-DRIED	00 NOT SPECIFIED (NO CONSUMPTION)	1E2529	P	1.000000		6.00	0.060000
05002JA	CHERRIES-DRIED	15 RAW-FRESH OR CANNED	1E2529	P	1.000000		6.00	0.060000
05002JA	CHERRIES-JUICE	21 COOKED-NFS	1E2529	P	1.000000		6.00	0.060000
05003AA	NECTARINES	10 RAW-FRESH OR NFS	3F1306	P	0.010000		52.00	0.005200
05003AA	NECTARINES	10 RAW-FRESH OR NFS	4E04289	P	0.050000		5.00	0.002500
05004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	3F1306	P	0.010000		50.00	0.005000
05004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	4E04289	P	0.050000		5.00	0.002500
05004AA	PEACHES-FRESH	21 COOKED-NFS	3F1306	P	0.010000		50.00	0.005000
05004AA	PEACHES-FRESH	21 COOKED-NFS	4E04289	P	0.050000		5.00	0.002500
05004AA	PEACHES-FRESH	31 COOKED-FRESH OR CANNED	3F1306	P	0.010000		50.00	0.005000
05004AA	PEACHES-FRESH	31 COOKED-FRESH OR CANNED	4E04289	P	0.050000		5.00	0.002500
05004AA	PEACHES-FRESH	51 COOKED-CANNED	3F1306	P	0.010000		50.00	0.005000
05004AA	PEACHES-FRESH	51 COOKED-CANNED	4E04289	P	0.050000		5.00	0.002500
05004DA	PEACHES-DRIED	10 RAW-FRESH OR NFS	3F1306	P	0.010000		50.00	0.005000
05004DA	PEACHES-DRIED	10 RAW-FRESH OR NFS	4E04289	P	0.050000		5.00	0.002500
05004DA	PEACHES-DRIED	21 COOKED-NFS	3F1306	P	0.010000		50.00	0.005000
05004DA	PEACHES-DRIED	21 COOKED-NFS	4E04289	P	0.050000		5.00	0.002500
05005AA	PLUMS-FRESH	10 RAW-FRESH OR NFS	6F1786	P	0.010000		25.00	0.002500
05005AA	PLUMS-FRESH	10 RAW-FRESH OR NFS	4E04289	P	0.050000		5.00	0.002500
05005AA	PLUMS-FRESH	31 COOKED-FRESH OR CANNED	6F1786	P	0.010000		25.00	0.002500

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			AD1	UF		
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	AD1	UF	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.
	NOEL=		0.0300 mg/kg	0.003000		
	LEL=		0.1000 mg/kg	0.003000		
	ONCO: E (Rfd/PR Committee)					

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
05005AA	PLUMS-FRESH	31 COOKED-FRESH OR CANNED	4E04289	P 0.050000	0.050000		5.00	0.002500
05005DA	PLUMS-PRUNES	10 RAW-FRESH OR NFS	6F1786	P 0.050000	0.010000		25.00	0.002500
05005DA	PLUMS-PRUNES	10 RAW-FRESH OR NFS	4E04289	P 0.050000	0.050000		5.00	0.002500
05005DA	PLUMS-PRUNES	21 COOKED-NFS	6F1786	P 0.050000	0.010000		25.00	0.002500
05005DA	PLUMS-PRUNES	21 COOKED-NFS	4E04289	P 0.050000	0.050000		5.00	0.002500
05005DA	PLUMS-PRUNES	31 COOKED-FRESH OR CANNED	6F1786	P 0.050000	0.010000		25.00	0.002500
05005DA	PLUMS-PRUNES	31 COOKED-FRESH OR CANNED	4E04289	P 0.050000	0.050000		5.00	0.002500
05005JA	PRUNE-JUICE	10 RAW-FRESH OR NFS	6F1786	P 0.010000	0.010000		25.00	0.002500
05005JA	PRUNE-JUICE	10 RAW-FRESH OR NFS	4E04289	P 0.050000	0.050000		5.00	0.002500
05005JA	PRUNE-JUICE	62 COOKED-FRESH OR FROZEN-BAKED	6F1786	P 0.010000	0.010000		25.00	0.002500
05005JA	PRUNE-JUICE	62 COOKED-FRESH OR FROZEN-BAKED	4E04289	P 0.050000	0.050000		5.00	0.002500
06001AA	AVOCADOS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06002AA	BANANAS-UNSPEC	22 COOKED-FRESH-BAKED	3F1370	P 0.010000	0.010000		100.00	0.010000
06002AB	BANANAS-FRESH	10 RAW-FRESH OR NFS	3F1370	P 0.010000	0.010000		100.00	0.010000
06002AB	BANANAS-FRESH	21 COOKED-NFS	3F1370	P 0.010000	0.010000		100.00	0.010000
06002AB	BANANAS-FRESH	31 COOKED-FRESH OR CANNED	3F1370	P 0.010000	0.010000		100.00	0.010000
06002DA	BANANAS-DRIED	10 RAW-FRESH OR NFS	3F1370	P 0.010000	0.010000		100.00	0.010000
06002DA	BANANAS-DRIED	21 COOKED-NFS	3F1370	P 0.010000	0.010000		100.00	0.010000
06003AA	COCONUT-FRESH	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06003DA	COCONUT-COPRA	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000C		100.00	0.005000
06003DA	COCONUT-COPRA	21 COOKED-NFS	6H5505	P 0.100000	0.005000C		100.00	0.005000
06003DA	COCONUT-COPRA	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000C		100.00	0.005000
06003DA	COCONUT-COPRA	62 COOKED-FRESH OR FROZEN-BAKED	6H5505	P 0.100000	0.005000C		100.00	0.005000
06004AA	COCONUT-WATER	10 RAW-FRESH OR NFS	6E3439	P 0.100000	0.005000		100.00	0.005000
06004AA	COCONUT-WATER	21 COOKED-NFS	6E3439	P 0.300000	0.300000		100.00	0.300000
06004AA	DATES	21 COOKED-NFS	6E3439	P 0.300000	0.300000		100.00	0.300000
06004AA	DATES	22 COOKED-FRESH-BAKED	2E2668	P 0.010000	0.010000		7.00	0.000700
06005AA	FIGS	21 COOKED-NFS	2E2668	P 0.010000	0.010000		7.00	0.000700
06005AA	FIGS	22 COOKED-FRESH-BAKED	2E2668	P 0.010000	0.010000		7.00	0.000700
06006AA	GUAVA	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06006AA	GUAVA	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06006AA	GUAVA	62 COOKED-FRESH OR FROZEN-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
06007AA	MANGOES	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06007AA	MANGOES	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06008AA	LOGUATS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
06009AA	OLIVES	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06009AA	OLIVES	11 RAW-FRESH-PICKLED,CORNED,OR CURED	6H5505	P 0.100000	0.005000		100.00	0.005000
06009AA	OLIVES	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
06010AA	PAPAYAS-UNSPEC	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E. (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
06010AB	PAPAYAS-PULP	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06010AB	PAPAYAS-PULP	51 COOKED-CANNED	6H5505	P	0.100000	0.005000	100.00	0.005000
06010DA	PAPAYAS-DRIED	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000C	100.00	0.005000
06010JA	PAPAYAS-JUICE	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000C	100.00	0.005000
06011AA	PAWPAWS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06012AA	PERSIMMONS	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06013AA	PINEAPPLE-PULP	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06013AA	PINEAPPLE-PULP	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06013AA	PINEAPPLE-PULP	31 COOKED-FRESH OR CANNED	6H5505	P	0.100000	0.005000C	100.00	0.005000
06013DA	PINEAPPLE-DRIED	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000C	100.00	0.005000
06013JA	PINEAPPLE-JUICE	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000C	100.00	0.005000
06013JA	PINEAPPLE-JUICE	15 RAW-FRESH OR CANNED	6H5505	P	0.100000	0.005000C	100.00	0.005000
06013JA	PINEAPPLE-JUICE	21 COOKED-NFS	6H5505	P	0.100000	0.005000C	100.00	0.005000
06013JA	PINEAPPLE-JUICE	31 COOKED-FRESH OR CANNED	6H5505	P	0.100000	0.005000C	100.00	0.005000
06014AA	PASSION FRUIT	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06015AA	POMEGRANATES	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06015AA	POMEGRANATES	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06016AA	PLANTAINS	21 COOKED-NFS	3F1370	P	0.010000	0.010000	100.00	0.010000
06016AA	PLANTAINS	23 COOKED-FRESH-BOILED	3F1370	P	0.010000	0.010000	100.00	0.010000
06016AA	PLANTAINS	25 COOKED-FRESH-FRIED	3F1370	P	0.010000	0.010000	100.00	0.010000
06017AA	LYCHEES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06017DA	LYCHEE-DRIED	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000C	100.00	0.005000
06018AA	KIWI	10 RAW-FRESH OR NFS	3E2766	P	2.000000	2.000000	100.00	2.000000
06020AA	ACEROLA	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06021AA	GINKGO NUTS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06022AA	MANEY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06023AA	PITANGA	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06024AA	SOURSOP	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06025AA	SUGAR APPLES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06026AA	BREAD FRUIT	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
06027AA	BREAD FRUIT	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06029AA	CARAMBOLA	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06030AA	CHERIMOYA	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06031AA	LONGAN FRUIT	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
06033AA	GENIP	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
07001FA	COCOA BUTTER	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
07001SA	CHOCOLATE	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
07001SA	CHOCOLATE	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
07001SA	CHOCOLATE	22 COOKED-FRESH-BAKED	6H5505	P	0.100000	0.005000	100.00	0.005000
07002AA	COFFEE	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP RfD= 0.003000 EPA RfD= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 RFD/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
07003AA	TEA	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
07006AA	CHICORY	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
08004AA	ANICE	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08006AA	BASIL	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08007AA	CARRAWAY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08008AA	CASSIA	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08011AA	CINNAMON	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08012AA	CLOVE	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08013AA	CORTANDER	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08014AA	CUMIN	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08015AA	DILL	00 NOT SPECIFIED (NO CONSUMPTION)	1E2529	P 0.100000	0.100000		100.00	0.100000
08019AA	GINGER	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08020AA	HOPS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
08022AA	HORSERADISH	11 RAW-FRESH-PICKLED, CORNED, OR CURED	6H5505	P 0.100000	0.005000		100.00	0.005000
08023AA	ROSEMARY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08026AA	MARJORAM	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08026AB	OREGANO	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08028AA	MUSTARD SEED	11 RAW-FRESH-PICKLED, CORNED, OR CURED	6H5505	P 0.100000	0.005000		100.00	0.005000
08028AA	MUSTARD SEED	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
08029AA	NUTMEG	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08029AB	MACE	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08035AA	SAGE	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08036AA	SAVORY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08038AA	BAY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08042AA	THYME	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08043AA	TURMERIC	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08047AA	ALLSPICE	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
08048DA	PAPRIKA	00 NOT SPECIFIED (NO CONSUMPTION)	1E2523	P 1.000000	0.140000		35.00	0.049000
08049AA	POPPY	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
10002AA	CANTALOUPE-UNSP	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
10002AB	CANTALOUPE-PULP	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10002AB	CANTALOUPE-PULP	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10003AA	CASABAS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10004AA	CRENSHAW	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
10005AA	HONEYDEW MELONS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10007AA	PERSTON MELONS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
10008AA	WATERMELON	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10008AA	WATERMELON	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10010AA	CUCUMBERS	10 RAW-FRESH OR NFS	9F2221	P 0.050000	0.050000		1.00	0.000500
10010AA	CUCUMBERS	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9F2221	P 0.050000	0.050000		1.00	0.000500

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos	Human 20 day feeding	Decreased plasma ChE.	ADI UF -->10	No data gaps.	WHO last reviewed 1982
Caswell #219AA	NOEL= 0.0300 mg/kg	No other systemic effects identified.	OPP RfD= 0.003000		HED complete 02/21/86
CAS No. 2921-88-2	0.00 ppm		EPA RfD= 0.003000		EPA verified 03/11/86
A.I. CODE: 059101	LEL= 0.1000 mg/kg	No evidence of carcinogenicity in rats or mice.			HED complete 03/04/88
CFR No. 180.342	ONCO: E (RfD/PR Committee)				RfD/PR reviewed 09/09/93
					On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
10010AA	CUCUMBERS	21 COOKED-NFS	9F2221	P 0.050000	0.050000		1.00	0.000500
10011AA	PUMPKIN	21 COOKED-NFS	3F2884	P 0.050000	0.050000		5.00	0.002500
10011AA	PUMPKIN	22 COOKED-FRESH-BAKED	3F2884	P 0.050000	0.050000		5.00	0.002500
10011AA	PUMPKIN	62 COOKED-FRESH OR FROZEN-BAKED	3F2884	P 0.050000	0.050000		5.00	0.002500
10013AA	SQUASH-SUMMER	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10013AA	SQUASH-SUMMER	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10014AA	SQUASH-WINTER	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10014AA	SQUASH-WINTER	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10014AA	SQUASH-WINTER	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
10017AA	BITTER MELON	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
10020AA	TOWELGOURD	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
11001AA	EGPLANT	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
11001AA	EGPLANT	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
11001AA	EGPLANT	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000		100.00	0.005000
11003AA	PEPPERS, SWEET	10 RAW-FRESH OR NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11003AA	PEPPERS, SWEET	21 COOKED-NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11003AB	CHILI PEPPERS	00 NOT SPECIFIED (NO CONSUMPTION)	1E2523	P 1.000000	0.140000		35.00	0.049000
11003AD	PEPPERS-OTHER	10 RAW-FRESH OR NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11003AD	PEPPERS-OTHER	21 COOKED-NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11003AD	PEPPERS-OTHER	51 COOKED-CANNED	1E2523	P 1.000000	0.140000		35.00	0.049000
11004AA	PIMIENTOS	10 RAW-FRESH OR NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11004AA	PIMIENTOS	21 COOKED-NFS	1E2523	P 1.000000	0.140000		35.00	0.049000
11004AA	PIMIENTOS	31 COOKED-FRESH OR CANNED	1E2523	P 1.000000	0.140000		35.00	0.049000
11005AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	4F2999	P 0.500000	0.095000		15.00	0.014250
11005AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	4F3008	A 0.500000	0.095000		15.00	0.014250
11005AA	TOMATOES-WHOLE	21 COOKED-NFS	4F2999	P 0.500000	0.095000		15.00	0.014250
11005AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	4F3008	A 0.500000	0.095000		15.00	0.014250
11005AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	4F3008	A 0.500000	0.095000		15.00	0.014250
11005JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	4F2999	P 0.500000	0.003000		15.00	0.000450
11005JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	4F3008	A 0.500000	0.003000		15.00	0.000450
11005JA	TOMATOES-JUICE	21 COOKED-NFS	4F2999	P 0.500000	0.003000		15.00	0.000450
11005JA	TOMATOES-JUICE	21 COOKED-NFS	4F3008	A 0.500000	0.003000		15.00	0.000450
11005RA	TOMATOES-PUREE	10 RAW-FRESH OR NFS	4F2999	P 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	10 RAW-FRESH OR NFS	4F3008	A 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	21 COOKED-NFS	4F2999	P 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	21 COOKED-NFS	4F3008	A 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	4F2999	P 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	4F3008	A 0.500000	0.010000		15.00	0.001500
11005RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	4F2999	P 0.500000	0.010000		15.00	0.001500

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP RfD= 0.003000 EPA RfD= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 RfD/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
11005RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	4F3008	A	0.500000	0.010000	15.00	0.001500
11005RA	TOMATOES-PUREE	51 COOKED-CANNED	4F2999	P	0.500000	0.010000	15.00	0.001500
11005RA	TOMATOES-PUREE	51 COOKED-CANNED	4F3008	A	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	21 COOKED-NFS	4F2999	P	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	21 COOKED-NFS	4F3008	A	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	4F2999	P	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	4F3008	A	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	4F2999	P	0.500000	0.010000	15.00	0.001500
11005TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	4F3008	A	0.500000	0.010000	15.00	0.001500
11005UA	TOMATOES-CATSUP	21 COOKED-NFS	4F2999	P	0.500000	0.010000	15.00	0.001500
11005UA	TOMATOES-CATSUP	21 COOKED-NFS	4F3008	A	0.500000	0.010000	15.00	0.001500
11006AA	GROUNDCHERRIES	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
13001AA	BEETS-TOPS	31 COOKED-FRESH OR CANNED	6H5505	P	0.100000	0.005000	100.00	0.005000
13001AA	BEETS-TOPS	63 COOKED-FRESH OR FROZEN-BOILED	6H5505	P	0.100000	0.005000	100.00	0.005000
13002AA	CELERY	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13002AA	CELERY	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13003AA	CHICORY	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13005AA	BROCCOLI	21 COOKED-NFS	3E2819	P	1.000000	1.000000	80.00	0.800000
13005AA	BROCCOLI	31 COOKED-FRESH OR CANNED	3E2819	P	1.000000	1.000000	80.00	0.800000
13005AA	BROCCOLI	63 COOKED-FRESH OR FROZEN-BOILED	3E2819	P	1.000000	1.000000	80.00	0.800000
13006AA	BRUSSEL SPROUTS	21 COOKED-NFS	3E2819	P	1.000000	1.000000	100.00	1.000000
13006AA	BRUSSEL SPROUTS	23 COOKED-FRESH-BOILED	3E2819	P	1.000000	1.000000	100.00	1.000000
13007AA	CABBAGE	10 RAW-FRESH OR NFS	3E2819	P	1.000000	1.000000	36.00	0.360000
13007AA	CABBAGE	11 RAW-FRESH-PICKLED, CORNED, OR CURED	3E2819	P	1.000000	1.000000	36.00	0.360000
13007AA	CABBAGE	21 COOKED-NFS	3E2819	P	1.000000	1.000000	36.00	0.360000
13008AA	CAULIFLOWER	10 RAW-FRESH OR NFS	3E2819	P	1.000000	1.000000	65.00	0.650000
13008AA	CAULIFLOWER	21 COOKED-NFS	3E2819	P	1.000000	1.000000	65.00	0.650000
13009AA	COLLARDS	51 COOKED-CANNED	3E2819	P	1.000000	1.000000	25.00	0.250000
13009AA	COLLARDS	63 COOKED-FRESH OR FROZEN-BOILED	3E2819	P	1.000000	1.000000	36.00	0.360000
13010AA	CABBAGE-CHINESE	10 RAW-FRESH OR NFS	3E2819	P	1.000000	1.000000	36.00	0.360000
13010AA	CABBAGE-CHINESE	21 COOKED-NFS	3E2819	P	1.000000	1.000000	100.00	1.000000
13011AA	KALE	63 COOKED-FRESH OR FROZEN-BOILED	3E2819	P	1.000000	1.000000	100.00	1.000000
13012AA	KOHLRABI	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13013AA	LETTUCE-LEAFY	10 RAW-FRESH OR NFS	4F3132	A	0.900000	0.235000	100.00	0.235000
13013AA	LETTUCE-LEAFY	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13014AA	DANDELION	63 COOKED-FRESH OR FROZEN-BOILED	6H5505	P	0.100000	0.005000	100.00	0.005000
13015AA	ENDIVE	10 RAW-FRESH OR NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13015AA	ENDIVE	21 COOKED-NFS	6H5505	P	0.100000	0.005000	100.00	0.005000
13016AA	FENNEL	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000
13017AA	CRESS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P	0.100000	0.005000	100.00	0.005000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E. (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
13018AA	ARTICHOKE-GLOBE	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13020AA	LETTUCE-UNSPEC	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13020AA	LETTUCE-UNSPEC	10 RAW-FRESH OR NFS	4F3132	A 0.900000	0.235000		100.00	0.235000
13021AA	MUSTARD GREENS	21 COOKED-NFS	3E2819	P 1.000000	1.000000		100.00	1.000000
13021AA	MUSTARD GREENS	63 COOKED-FRESH OR FROZEN-BOILED	3E2819	P 1.000000	1.000000		100.00	1.000000
13022AA	PARSLEY	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13022AA	PARSLEY	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13022AA	PARSLEY	53 COOKED-CANNED-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
13023AA	RHUBARB	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13023AA	RHUBARB	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13023AA	RHUBARB	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
13023AA	RHUBARB	62 COOKED-FRESH OR FROZEN-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
13024AA	SPINACH	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13024AA	SPINACH	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13024AA	SPINACH	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
13025AA	SWISS CHARD	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13025AA	SWISS CHARD	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
13025AA	SWISS CHARD	63 COOKED-FRESH OR FROZEN-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
13026AA	TURNIPS-TOPS	10 RAW-FRESH OR NFS	0E2411	P 0.300000	0.300000		100.00	0.300000
13026AA	TURNIPS-TOPS	21 COOKED-NFS	0E2411	P 0.300000	0.300000		100.00	0.300000
13026AA	TURNIPS-TOPS	31 COOKED-FRESH OR CANNED	0E2411	P 0.300000	0.300000		100.00	0.300000
13027AA	WATERCRESS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13027AA	WATERCRESS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13034AA	TARO-GREENS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
13039AA	CRESS, UPLAND	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
13045AA	LETTUCE-HEAD	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13045AA	LETTUCE-HEAD	21 COOKED-NFS	4F3132	A 0.900000	0.235000		100.00	0.235000
13045AA	LETTUCE-HEAD	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13047AA	LAMBSQUARTER	21 COOKED-NFS	4F3132	A 0.900000	0.235000		100.00	0.235000
13048AA	CACTUS PADS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
13049AA	GRAPES-LEAVES	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
13999AA	LEAFY ORIENT VEG	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14001AA	BEEETS-ROOTS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14001AA	BEEETS-ROOTS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14001AA	BEEETS-ROOTS	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	6H5505	P 0.100000	0.005000		100.00	0.005000
14001AA	BEEETS-ROOTS	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
14003AA	CARROTS	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14003AA	CARROTS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14003AA	CARROTS	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL = 0.0300 mg/kg 0.00 ppm LEL = 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
14003AA	CARROTS	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
14003AA	CARROTS	51 COOKED-CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
14004AA	CELERIAC	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14005AA	CHIVES	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14006AA	TARO-ROOT	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14007AA	GARLIC	10 RAW-FRESH OR NFS	0E2387	P 0.500000	0.500000		22.00	0.110000
14007AA	GARLIC	21 COOKED-NFS	0E2387	P 0.500000	0.500000		22.00	0.110000
14007AA	GARLIC	32 COOKED-FRESH OR CANNED-BAKED	0E2387	P 0.500000	0.500000		22.00	0.110000
14009AA	ARTICHOKES-JER	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14010AA	LEKS	31 COOKED-FRESH OR FROZEN	6E3389	P 0.200000	0.200000		100.00	0.200000
14011AA	ONIONS-DRY-BULB	10 RAW-FRESH OR NFS	0E2387	P 0.500000	0.500000		22.00	0.110000
14011AA	ONIONS-DRY-BULB	21 COOKED-NFS	0E2387	P 0.500000	0.500000		22.00	0.110000
14011AA	ONIONS-DRY-BULB	22 COOKED-FRESH-BAKED	0E2387	P 0.500000	0.500000		22.00	0.110000
14011AA	ONIONS-DRY-BULB	31 COOKED-FRESH OR CANNED	0E2387	P 0.500000	0.500000		22.00	0.110000
14011DA	ONIONS-DRIED	12 RAW-FRESH-BAKED	0E2387	P 0.500000	0.500000		22.00	0.110000
14013AA	POTATOC(WH)-WHOLE	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AA	POTATOC(WH)-WHOLE	21 COOKED-NFS	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AA	POTATOC(WH)-WHOLE	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AB	POTATOC(WH)-UNSP	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AC	POTATOC(WH)-PULP	21 COOKED-NFS	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AC	POTATOC(WH)-PULP	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AC	POTATOC(WH)-PULP	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		2.00	0.000100
14013AC	POTATOC(WH)-PULP	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000		2.00	0.000100
14013DA	POTATOC(WH)-DRY	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000C		2.00	0.000100
14013DA	POTATOC(WH)-DRY	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000C		2.00	0.000100
14013HA	POTATOC(WH)-PEEL	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		2.00	0.000100
14014AA	RADISHES-ROOTS	10 RAW-FRESH OR NFS	8E2038	P 2.000000	2.000000		85.00	1.700000
14014AB	RADISHES-TOPS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14015AA	RUTABAGAS-ROOTS	10 RAW-FRESH OR NFS	832038	P 0.500000	0.500000		100.00	0.500000
14015AA	RUTABAGAS-ROOTS	21 COOKED-NFS	832038	P 0.500000	0.500000		100.00	0.500000
14015AB	RUTABAGAS-TOPS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14016AA	SALSIFY	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14017AA	SHALLOTS	00 NOT SPECIFIED (NO CONSUMPTION)	0E2387	P 0.500000	0.500000		22.00	0.110000
14018AA	SWEET POTATOES	21 COOKED-NFS	6F1786	P 0.050000	0.050000		40.00	0.020000
14018AA	SWEET POTATOES	31 COOKED-FRESH OR CANNED	6F1786	P 0.050000	0.050000		40.00	0.020000
14018AA	SWEET POTATOES	51 COOKED-CANNED	6F1786	P 0.050000	0.050000		40.00	0.020000
14019AA	TURNIPS-ROOTS	10 RAW-FRESH OR NFS	0E2411	P 1.000000	1.000000		100.00	1.000000
14019AA	TURNIPS-ROOTS	21 COOKED-NFS	0E2411	P 1.000000	1.000000		100.00	1.000000
14021AA	PARSNIPS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14024AA	YAMBEAN, TUBER	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

DATE: 02/16/94

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF		
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	0.003000	10	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
14026AA	CASSAVA	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14026AA	CASSAVA	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
14026AB	TAPIOCA	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14026AB	TAPIOCA	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
14028AA	TAUTIA, TANNIER	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14030AA	PARSLEY ROOTS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
14031AA	WATER CHESTNUTS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
14031AA	WATER CHESTNUTS	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000		100.00	0.005000
15001AA	BEANS-DRY-GRY NO 00 NOT SPECIFIED (NO CONSUMPTION)		9F2221	P 0.050000	0.002500		5.00	0.002500
15001AB	BEANS-DRY-KIDNEY	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AB	BEANS-DRY-KIDNEY	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AC	BEANS-DRY-LIMA	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AD	BEANS-DRY-NAVY	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AD	BEANS-DRY-NAVY	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AE	BEANS-DRY-OTHER	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AE	BEANS-DRY-OTHER	25 COOKED-FRESH-FRIED	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AE	BEANS-DRY-OTHER	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.002500		5.00	0.002500
15001AF	BEANS-DRY-PINTO	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15002AA	BEANS-SUCC-LIMA	10 RAW-FRESH OR NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15002AA	BEANS-SUCC-LIMA	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15003AA	BEANS-SUCC-GREEN	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15003AB	BEANS-SUCC-OTHER	10 RAW-FRESH OR NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15003AB	BEANS-SUCC-OTHER	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15003AC	BEANS-SUCC-WAX	21 COOKED-NFS	9F2221	P 0.050000	0.002500		5.00	0.002500
15004AA	CORN, POP	21 COOKED-NFS	6H5505	P 0.100000	0.005000		14.00	0.000700
15005AA	CORN, SWEET	10 RAW-FRESH OR NFS	3F1306	P 0.100000	0.100000		36.00	0.036000
15005AA	CORN, SWEET	21 COOKED-NFS	3F1306	P 0.100000	0.100000		36.00	0.036000
15005AA	CORN, SWEET	31 COOKED-FRESH OR CANNED	3F1306	P 0.100000	0.100000		36.00	0.036000
15006AA	PEANUTS-WHOLE	10 RAW-FRESH OR NFS	9F2193	P 0.200000	0.200000		45.00	0.090000
15006AA	PEANUTS-WHOLE	21 COOKED-NFS	9F2193	P 0.200000	0.200000		45.00	0.090000
15006AA	PEANUTS-WHOLE	22 COOKED-FRESH-BAKED	9F2193	P 0.200000	0.200000		45.00	0.090000
15007AA	PEAS DRY-GARDEN	21 COOKED-NFS	9F2221	P 0.050000	0.050000		90.00	0.045000
15007AA	PEAS DRY-GARDEN	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.050000		90.00	0.045000
15009AA	PEAS SUCC-GARDEN	21 COOKED-NFS	9F2221	P 0.050000	0.050000		90.00	0.045000
15009AA	PEAS SUCC-GARDEN	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.050000		90.00	0.045000
15011AA	LENTILS-WHOLE	31 COOKED-FRESH OR CANNED	9F2221	P 0.050000	0.050000		5.00	0.002500
15011AB	LENTILS-SPLIT	21 COOKED-NFS	9F2221	P 0.050000	0.050000		5.00	0.002500
15013AA	MUNG BEANS	10 RAW-FRESH OR NFS	9F2221	P 0.050000	0.050000		5.00	0.002500
15013AA	MUNG BEANS	21 COOKED-NFS	9F2221	P 0.050000	0.050000		5.00	0.002500
15015AA	OKRA	21 COOKED-NFS	9F2221	P 0.100000	0.100000		10.00	0.010000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day Feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF >>10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
15015AA	OKRA	25 COOKED-FRESH-FRIED	9F2221	P	0.100000		10.00	0.010000
15018AA	SUNFLOWER-SEEDS	10 RAW-FRESH OR NFS	2F2588	P	0.250000		3.00	0.007500
15020AA	CAROB	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
15020AA	CAROB	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
15020AA	CAROB	22 COOKED-FRESH-BAKED	6H5505	P	0.100000		100.00	0.005000
15021AA	ALFALFA SPROUTS	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
15022AA	BEANS-DRY-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	9F2221	P	0.050000		5.00	0.002500
15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED (NO CONSUMPTION)	9F2221	P	0.050000		5.00	0.002500
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	9F2221	P	0.050000		5.00	0.002500
15026AA	SESAME SEEDS	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
15026AA	SESAME SEEDS	22 COOKED-FRESH-BAKED	6H5505	P	0.100000		100.00	0.005000
15027AA	BEANS-UNSPEC	21 COOKED-NFS	9F2221	P	0.050000		5.00	0.002500
15028AA	PINENUTS	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
15028AA	PINENUTS	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P	0.300000		2.00	0.006000
15030AA	BEANS-DRY-HYACIN	00 NOT SPECIFIED (NO CONSUMPTION)	9F2221	P	0.050000		5.00	0.002500
15030AB	BEANS-SUCC-HYACI	00 NOT SPECIFIED (NO CONSUMPTION)	9F2221	P	0.050000		5.00	0.002500
15031AA	BLKEYE PEAS-DRY	21 COOKED-NFS	9F2221	P	0.050000		5.00	0.002500
15032AA	BEANS-DRY	21 COOKED-NFS	9F2221	P	0.050000		5.00	0.002500
15032AA	BEANS-DRY	31 COOKED-FRESH OR CANNED	9F2221	P	0.050000		5.00	0.002500
16002AA	ASPARAGUS	21 COOKED-NFS	2E2644	P	5.000000		21.00	1.050000
16002AA	ASPARAGUS	23 COOKED-FRESH-BOILED	2E2644	P	5.000000		21.00	1.050000
16003AA	MUSHROOMS	10 RAW-FRESH OR NFS	3E2886	P	0.100000		100.00	0.100000
16003AA	MUSHROOMS	21 COOKED-NFS	3E2886	P	0.100000		100.00	0.100000
16003AA	MUSHROOMS	31 COOKED-FRESH OR CANNED	3E2886	P	0.100000		100.00	0.100000
16003AA	MUSHROOMS	53 COOKED-CANNED-BOILED	3E2886	P	0.100000		100.00	0.100000
16004AA	ONIONS-GREEN	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
16004AA	ONIONS-GREEN	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
16004AA	ONIONS-GREEN	25 COOKED-FRESH-FRIED	6H5505	P	0.100000		100.00	0.005000
16007AA	POKE GREENS	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
16008AA	BAMBOO SHOOTS	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
24001AA	BARLEY	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
24002EA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	3F1306	P	0.050000		14.00	0.007000
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	3F1306	P	0.050000		14.00	0.007000
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	3F1306	P	0.050000		14.00	0.007000
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	3F1306	P	0.050000		14.00	0.007000
24002HA	CORN, GRAIN-BRAN	00 NOT SPECIFIED (NO CONSUMPTION)	3F1306	P	0.050000		14.00	0.007000
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	3F1306	P	0.050000		14.00	0.007000
24002SA	CORN SUGAR	21 COOKED-NFS	3F1306	P	0.050000		14.00	0.007000
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	3F1306	P	0.050000		14.00	0.007000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP RFD= 0.003000 EPA RFD= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 RFD/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
24003AA	OATS	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
24003AA	OATS	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
24003AA	OATS	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AA	RICE-ROUGH	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AA	RICE-ROUGH	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AB	RICE-MILLED	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AB	RICE-MILLED	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	6H5505	P 0.100000	0.005000		100.00	0.005000
24004AB	RICE-MILLED	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
24005AA	RYE-ROUGH	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
24005GA	RYE-GERM	21 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
24005WA	RYE-FLOUR	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
24006AA	SORGHUM	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.750000	0.005000		11.00	0.082500
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007AA	WHEAT-ROUGH	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007AA	WHEAT-ROUGH	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007AA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.001000
24007AA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007AA	WHEAT-ROUGH	23 COOKED-FRESH-BOILED	6H5505	P 0.400000	0.034000		20.00	0.001000
24007AA	WHEAT-ROUGH	23 COOKED-FRESH-BOILED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007GA	WHEAT-GERM	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007GA	WHEAT-GERM	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007GA	WHEAT-GERM	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.001000
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007HA	WHEAT-BRAN	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007HA	WHEAT-BRAN	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.001000
24007WA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007WA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007WA	WHEAT-FLOUR	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.006800
24007WA	WHEAT-FLOUR	21 COOKED-NFS	6H5505	P 0.400000	0.034000		20.00	0.001000
24007WA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007WA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	6H5505	P 0.400000	0.034000		20.00	0.001000
24007WA	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	6H5505	P 0.400000	0.034000		20.00	0.006800
24007WA	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	6H5505	P 0.400000	0.034000		20.00	0.001000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP RfD= 0.003000 EPA RfD= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 RfD/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
24012AA	MILLET	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
24012AA	MILLET	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
25001AA	HONEY	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
25001AA	HONEY	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
25001AA	HONEY	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
25002SA	BEEET SUGAR	10 RAW-FRESH OR NFS	2F2684	P 1.000000	1.000000		35.00	0.350000
25002SA	BEEET SUGAR	21 COOKED-NFS	2F2684	P 1.000000	1.000000		35.00	0.350000
25002SA	BEEET SUGAR	22 COOKED-FRESH-BAKED	2F2684	P 1.000000	1.000000		35.00	0.350000
25002SA	BEEET SUGAR	31 COOKED-FRESH OR CANNED	2F2684	P 1.000000	1.000000		35.00	0.350000
25003SA	CANE SUGAR	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SA	CANE SUGAR	21 COOKED-NFS	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SA	CANE SUGAR	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SA	CANE SUGAR	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SB	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SB	SUGAR-MOLASSES	21 COOKED-NFS	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SB	SUGAR-MOLASSES	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.010000		100.00	0.010000
25003SB	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	6H5505	P 0.100000	0.010000		100.00	0.010000
25004SA	MAPLE SYRUP	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
25004SA	MAPLE SYRUP	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
26001AA	BUCKWHEAT	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
26001AA	BUCKWHEAT	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000		100.00	0.005000
26011AA	GUAR BEANS	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
270010A	CORN, GRAIN-OIL	00 NOT SPECIFIED (NO CONSUMPTION)	9F2221	P 0.050000	0.050000		5.00	0.002500
270020A	COTTONSEED-OIL	18 PROCESSED OIL	1H5323	P 3.000000	3.000000C		14.00	0.420000
270030A	COTTONSEED-OIL	18 PROCESSED OIL	6F1786	P 0.200000	0.200000		13.00	0.026000
27003MA	COTTONSEED-MEAL	18 PROCESSED OIL	6F1786	P 0.200000	0.200000		13.00	0.026000
27004AA	FLAX SEED	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000		100.00	0.005000
270070A	PEANUTS-OIL	18 PROCESSED OIL	9H5226	P 0.400000	0.400000C		45.00	0.180000
27008AA	SAFFLOWER-SEED	00 NOT SPECIFIED (NO CONSUMPTION)	6H5505	P 0.100000	0.005000C		100.00	0.005000
270080A	SAFFLOWER-OIL	18 PROCESSED OIL	6H5505	P 0.100000	0.005000		100.00	0.005000
270090A	SESAME-OIL	18 PROCESSED OIL	6H5505	P 0.100000	0.005000		100.00	0.005000
270100A	SOYBEANS-OIL	18 PROCESSED OIL	9F2270	P 0.300000	0.300000		2.00	0.006000
270110A	SUNFLOWER-OIL	18 PROCESSED OIL	2F2588	P 0.250000	0.250000		3.00	0.007500
270150A	COCONUT-OIL	10 RAW-FRESH OR NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
270150A	COCONUT-OIL	21 COOKED-NFS	6H5505	P 0.100000	0.005000		100.00	0.005000
270150A	COCONUT-OIL	22 COOKED-FRESH-BAKED	6H5505	P 0.100000	0.005000		100.00	0.005000
270150A	COCONUT-OIL	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000		100.00	0.005000
270150A	COCONUT-OIL	51 COOKED-CANNED	6H5505	P 0.100000	0.005000		100.00	0.005000
270160A	OLIVE OIL	18 PROCESSED OIL	6H5505	P 0.100000	0.005000		100.00	0.005000

AR FHE = 0.005;
petition 3E4192
is pending as
of 11/30/93

AR FHE = 0.005

CHEMICAL Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	STUDY TYPE Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E. (Rfd/PR Committee)	EFFECTS Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	REFERENCE DOSES ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	DATA GAPS/COMMENTS No data gaps.	STATUS WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
27017AA	RAPE SEED	00 NOT SPECIFIED (NO CONSUMPTION)		P	0.100000		100.00	0.005000
270190A	PALM OIL	18 PROCESSED OIL	6H5505	P	0.100000		100.00	0.005000
28023AA	SOYBEANS-UNSPEC	21 COOKED-NFS	9F2270	P	0.300000		2.00	0.006000
28023AB	SOYBEANS-DRY	10 RAW-FRESH OR NFS	9F2270	P	0.300000		2.00	0.006000
28023AB	SOYBEANS-DRY	21 COOKED-NFS	9F2270	P	0.300000		2.00	0.006000
28023AB	SOYBEANS-DRY	23 COOKED-FRESH-BOILED	9F2270	P	0.300000		2.00	0.006000
28023AB	SOYBEANS-DRY	25 COOKED-FRESH-FRIED	9F2270	P	0.300000		2.00	0.006000
28023AB	SOYBEANS-DRY	31 COOKED-FRESH OR CANNED	9F2270	P	0.300000		2.00	0.006000
28023WA	SOY-FL, FULL FAT	21 COOKED-NFS	9F2270	P	0.300000		2.00	0.006000
28023WA	SOY-FL, FULL FAT	22 COOKED-FRESH-BAKED	9F2270	P	0.300000		2.00	0.006000
28023WA	SOY-FL, FULL FAT	31 COOKED-FRESH OR CANNED	9F2270	P	0.300000		2.00	0.006000
28023WB	SOY-FL, LOW FAT	21 COOKED-NFS	9F2270	P	0.300000		2.00	0.006000
28023WC	SOY-FL, DEFAT	21 COOKED-NFS	9F2270	P	0.300000		2.00	0.006000
28023WC	SOY-FL, DEFAT	22 COOKED-FRESH-BAKED	9F2270	P	0.300000		2.00	0.006000
28023WC	SOY-FL, DEFAT	51 COOKED-CANNED	9F2270	P	0.300000		2.00	0.006000
28024AB	ORNTL NOLEAF VEG	53 COOKED-CANNED-BOILED	9F2270	P	0.300000		2.00	0.006000
28040AA	SEEDS-OTHER	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
28080AA	PEPPERMINT	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
28080AA	PEPPERMINT-OIL	00 NOT SPECIFIED (NO CONSUMPTION)		P	0.800000		35.00	0.280000
28081AA	SPEARMINT	00 NOT SPECIFIED (NO CONSUMPTION)		P	0.800000		35.00	0.280000
28081AA	SPEARMINT-OIL	00 NOT SPECIFIED (NO CONSUMPTION)		P	0.800000		35.00	0.280000
43057AA	VINEGAR	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
43057AA	VINEGAR	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
43058AA	WINE AND SHERRY	10 RAW-FRESH OR NFS	2E2584	P	0.500000		18.00	0.000900
43058AA	WINE AND SHERRY	10 RAW-FRESH OR NFS	3F2872	N	0.500000		100.00	0.005000
43058AA	WINE AND SHERRY	21 COOKED-NFS	2E2584	P	0.500000		18.00	0.000900
43058AA	WINE AND SHERRY	21 COOKED-NFS	3F2872	N	0.500000		100.00	0.005000
43059AA	DIST ALCOHOL	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
43060AA	GELATIN	10 RAW-FRESH OR NFS	6H5505	P	0.100000		100.00	0.005000
43060AA	GELATIN	21 COOKED-NFS	6H5505	P	0.100000		100.00	0.005000
500000B	MILK-NON-FAT SOL	10 RAW-FRESH OR NFS	0F2281	P	0.010000		100.00	0.010000
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	0F2281	P	0.010000		100.00	0.010000
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	0F2281	P	0.010000		100.00	0.010000
50000FA	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	0F2281	P	0.250000		100.00	0.250000
50000FA	MILK-FAT SOLIDS	21 COOKED-NFS	0F2281	P	0.250000		100.00	0.250000
50000FA	MILK-FAT SOLIDS	51 COOKED-CANNED	0F2281	P	0.250000		100.00	0.250000
50000SA	MILK SUG (LACT)	21 COOKED-NFS	0F2281	P	0.010000		100.00	0.010000
50000SA	MILK SUG (LACT)	51 COOKED-CANNED	0F2281	P	0.010000		100.00	0.010000

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 219AA

DATE: 02/18/94

PAGE: 17

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			ADI	UF		
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding	Decreased plasma ChE. No other systemic effects identified.	0.05000	10	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 RfD/PR reviewed 09/09/93 On IRIS.
	NOEL= 0.0000 mg/kg		0.003000	0.003000		
	LEL= 0.1000 mg/kg	No evidence of carcinog- enicity in rats or mice.	0.05000	10		
	ONCO: E (RfD/PR Committee)		0.003000	0.003000		

FOOD CODE	FOOD	FOOD FORM	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
530018A	BEEF-MEAT BYPROD	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
530018A	BEEF-MEAT BYPROD	26 COOKED-FRESH-PICKLED, CORNED OR CURED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
530018B	BEEF-OTHER ORGAN	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
530018B	BEEF-OTHER ORGAN	51 COOKED-CANNED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
530018A	BEEF-DRIED	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001FA	BEEF-FAT	10 RAW-FRESH OR NFS	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001FA	BEEF-FAT	21 COOKED-NFS	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001FA	BEEF-FAT	22 COOKED-FRESH-BAKED	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001FA	BEEF-FAT	23 COOKED-FRESH-BOILED	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001FA	BEEF-FAT	24 COOKED-FRESH-BROILED	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001FA	BEEF-FAT	25 COOKED-FRESH-FRIED	3F1306	P 0.300000	0.300000	3F02884	100.00	0.300000
53001KA	BEEF-KIDNEY	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001LA	BEEF-LIVER	25 COOKED-FRESH-FRIED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001LA	BEEF-LIVER	31 COOKED-FRESH OR CANNED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001MA	BEEF-LEAN	10 RAW-FRESH OR NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001MA	BEEF-LEAN	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001MA	BEEF-LEAN	22 COOKED-FRESH-BAKED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001MA	BEEF-LEAN	23 COOKED-FRESH-BOILED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53001MA	BEEF-LEAN	24 COOKED-FRESH-BROILED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53002BA	GOAT-MEAT BYPROD	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53002BA	GOAT-OTHER ORGAN	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53002FA	GOAT-FAT	23 COOKED-FRESH-BOILED	9F2270	P 0.200000	0.200000	3F02884	100.00	0.200000
53002FA	GOAT-FAT	25 COOKED-FRESH-FRIED	9F2270	P 0.200000	0.200000	3F02884	100.00	0.200000
53002KA	GOAT-KIDNEY	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53002LA	GOAT-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53002MA	GOAT-LEAN	23 COOKED-FRESH-BOILED	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53002MA	GOAT-LEAN	25 COOKED-FRESH-FRIED	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53003AA	HORSE	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.250000	0.250000	3F02884	100.00	0.250000
53004AA	RABBIT	21 COOKED-NFS	6H5505	P 0.100000	0.005000	3F02884	100.00	0.005000
53004AA	RABBIT	25 COOKED-FRESH-FRIED	6H5505	P 0.100000	0.005000	3F02884	100.00	0.005000
53005BA	SHEEP-MEAT BYP	21 COOKED-NFS	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53005BB	SHEEP-OTH ORGANS	21 COOKED-NFS	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53005FA	SHEEP-FAT	21 COOKED-NFS	9F2270	P 0.200000	0.200000	3F02884	100.00	0.200000
53005KA	SHEEP-KIDNEY	21 COOKED-NFS	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53005LA	SHEEP-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53005MA	SHEEP-LEAN	21 COOKED-NFS	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53005MA	SHEEP-LEAN	31 COOKED-FRESH OR CANNED	9F2270	P 0.050000	0.050000	3F02884	100.00	0.050000
53006BA	PORK-MEAT BYP	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53006BB	PORK-OTH ORGANS	21 COOKED-NFS	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000
53006BB	PORK-OTH ORGANS	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1306	P 0.050000	0.050000	3F02884	100.00	0.050000

FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS		
				ADI	UF -->10				
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342									
		Human 20 day feeding	Decreased plasma ChE. No other systemic effects identified.	AD1	UF -->10	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.		
		NOEL= 0.0300 mg/kg 0.00 ppm		OPP Rfd= 0.003000 EPA Rfd= 0.003000					
		LEL= 0.1000 mg/kg 0.00 ppm	No evidence of carcinogenicity in rats or mice.						
		ONCO: E (Rfd/PR Committee)							
FOOD CODE	FOOD	STUDY TYPE	EFFECTS	TOLERANCE (ppm)	PET.#	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
53006FA	PORK-FAT	10 RAW-FRESH OR NFS		P 0.200000	3F1306	0.200000		100.00	0.200000
53006FA	PORK-FAT	21 COOKED-NFS		P 0.200000	3F1306	0.200000		100.00	0.200000
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED		P 0.200000	3F1306	0.200000		100.00	0.200000
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED		P 0.200000	3F1306	0.200000		100.00	0.200000
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED		P 0.200000	3F1306	0.200000		100.00	0.200000
53006KA	PORK-KIDNEY	21 COOKED-NFS		P 0.050000	3F1306	0.050000		100.00	0.050000
53006LA	PORK-LIVER	21 COOKED-NFS		P 0.050000	3F1306	0.050000		100.00	0.050000
53006LA	PORK-LIVER	25 COOKED-FRESH-FRIED		P 0.050000	3F1306	0.050000		100.00	0.050000
53006MA	PORK-LEAN	21 COOKED-NFS		P 0.050000	3F1306	0.050000		100.00	0.050000
53006MA	PORK-LEAN	25 COOKED-FRESH-FRIED		P 0.050000	3F1306	0.050000		100.00	0.050000
53006MA	PORK-LEAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED		P 0.050000	3F1306	0.050000		100.00	0.050000
53010AA	FISH-UNSPEC	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53013AA	FISH-SHELL	10 RAW-FRESH OR NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53013AA	FISH-SHELL	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53013AA	FISH-SHELL	25 COOKED-FRESH-FRIED		P 0.100000	6H5505	0.005000		100.00	0.005000
53014AA	MEAT, GAME	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53014AA	MEAT, GAME	25 COOKED-FRESH-FRIED		P 0.100000	6H5505	0.005000		100.00	0.005000
53015AA	FISH-ROE, CAVIAR	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53015AA	FISH-ROE, CAVIAR	51 COOKED-CANNED		P 0.100000	6H5505	0.005000		100.00	0.005000
53016AA	FISH, FIN-FRESH	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53016AA	FISH, FIN-FRESH	25 COOKED-FRESH-FRIED		P 0.100000	6H5505	0.005000		100.00	0.005000
53017AA	FISH, FIN-SALT	10 RAW-FRESH OR NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53017AA	FISH, FIN-SALT	21 COOKED-NFS		P 0.100000	6H5505	0.005000		100.00	0.005000
53017AA	FISH, FIN-SALT	25 COOKED-FRESH-FRIED		P 0.100000	6H5505	0.005000		100.00	0.005000
53017DA	FISH, FIN-SLT-DRY	12 RAW-FRESH-DRIED		P 0.100000	6H5505	0.005000C		100.00	0.005000
53017DA	FISH, FIN-SLT-DRY	21 COOKED-NFS		P 0.100000	6H5505	0.005000C		100.00	0.005000
55008BA	TURKEY-BYPRODUCT	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008BA	TURKEY BYPRODUCT	26 COOKED-FRESH-PICKLED, CORNED OR CURED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008LA	TURKEY ORGAN	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008LA	TURKEY ORGAN	25 COOKED-FRESH-FRIED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MA	TURKEY W/O SKIN	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MA	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MB	TURKEY+SKIN	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MB	TURKEY+SKIN	25 COOKED-FRESH-FRIED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55008MC	TURKEY-UNSPEC	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55013BA	POULTRY, OTH-BYP	00 NOT SPECIFIED (NO CONSUMPTION)		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55013LA	POULTRY, ORGAN	25 COOKED-FRESH-FRIED		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55013MA	POULTRY, OTHER	21 COOKED-NFS		P 0.100000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS		P 0.010000	6F1673	0.010000	FEEDING STUDY	100.00	0.010000

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20-day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 EPA complete 02/21/86 HED verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

FOOD CODE	FOOD	PET.#	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
55014AA	EGGS-WHOLE	6F1673	P	0.010000		100.00	0.010000
55014AA	EGGS-WHOLE	6F1673	P	0.010000		100.00	0.010000
55014AA	EGGS-WHOLE	6F1673	P	0.010000		100.00	0.010000
55014AB	EGGS-WHITE ONLY	6F1673	P	0.010000		100.00	0.010000
55014AB	EGGS-WHITE ONLY	6F1673	P	0.010000		100.00	0.010000
55014AB	EGGS-WHITE ONLY	6F1673	P	0.010000		100.00	0.010000
55014AB	EGGS-WHITE ONLY	6F1673	P	0.010000		100.00	0.010000
55014AC	EGGS-YOLK ONLY	6F1673	P	0.010000		100.00	0.010000
55014AC	EGGS-YOLK ONLY	6F1673	P	0.010000		100.00	0.010000
55014AC	EGGS-YOLK ONLY	6F1673	P	0.010000		100.00	0.010000
55014AC	EGGS-YOLK ONLY	6F1673	P	0.010000		100.00	0.010000
55015BA	CHICKEN-BYPROD	6F1673	P	0.010000	FEEDING STUDY	100.00	0.010000
55015LA	CHICKEN-ORGAN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015LA	CHICKEN-ORGAN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MA	CHICKEN-W/O SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MA	CHICKEN-W/O SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MA	CHICKEN-W/O SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MA	CHICKEN-W/O SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MA	CHICKEN-W/O SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MB	CHICKEN+SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000
55015MB	CHICKEN+SKIN	6F1673	P	0.100000	FEEDING STUDY	100.00	0.010000

CHEMICAL INFORMATION	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Chlorpyrifos Caswell #219AA CAS No. 2921-88-2 A.I. CODE: 059101 CFR No. 180.342	Human 20 day feeding NOEL= 0.0300 mg/kg 0.00 ppm LEL= 0.1000 mg/kg 0.00 ppm ONCO: E (Rfd/PR Committee)	Decreased plasma ChE. No other systemic effects identified. No evidence of carcinogenicity in rats or mice.	ADI UF -->10 OPP Rfd= 0.003000 EPA Rfd= 0.003000	No data gaps.	WHO last reviewed 1982 HED complete 02/21/86 EPA verified 03/11/86 HED complete 03/04/88 Rfd/PR reviewed 09/09/93 On IRIS.

POPULATION SUBGROUP	TOTAL TMRC (MG/KG BODY WEIGHT/DAY)	NEW TMRC**	NEW TMRC AS PERCENT OF RFD	DIFFERENCE AS PERCENT OF RFD	EFFECT OF ANTICIPATED RESIDUES	%RFD
	CURRENT TMRC*				ARC	
U.S. POPULATION - 48 STATES	0.007148	0.008234	274.452300	36.174500	0.001101	36.69920
U.S. POPULATION - SPRING SEASON	0.006864	0.007906	263.523267	34.719767	0.001056	35.20767
U.S. POPULATION - SUMMER SEASON	0.006705	0.007826	260.881067	37.387067	0.001047	34.88753
U.S. POPULATION - FALL SEASON	0.007411	0.008497	283.239833	36.209033	0.001156	38.52610
U.S. POPULATION - WINTER SEASON	0.007477	0.008569	285.632033	36.392567	0.001110	37.00440
NORTHEAST REGION	0.008180	0.009339	311.293367	38.640733	0.001122	37.39140
NORTH CENTRAL REGION	0.006988	0.008099	269.950100	37.027500	0.001096	36.54727
SOUTHERN REGION	0.006150	0.007049	234.975867	29.980167	0.001022	34.06410
WESTERN REGION	0.007536	0.008806	293.548667	42.354133	0.001168	38.94077
HISPANICS	0.008135	0.009343	311.425867	40.263367	0.001118	37.27180
NON-HISPANIC WHITES	0.007096	0.008235	274.505633	37.959233	0.001091	36.36677
NON-HISPANIC BLACKS	0.006583	0.007282	242.746633	23.301300	0.001066	35.53037
NON-HISPANIC OTHERS	0.008567	0.009499	316.632333	31.063833	0.001285	42.82833
NURSING INFANTS (< 1 YEAR OLD)	0.012947	0.013107	436.905267	5.341300	0.001435	47.83907
NON-NURSING INFANTS (< 1 YEAR OLD)	0.021981	0.022615	753.847833	21.162833	0.002851	95.03160
FEMALES (13+ YEARS, PREGNANT)	0.005367	0.006341	211.381967	32.480067	0.000798	26.61583
FEMALES 13+ YEARS, NURSING	0.005992	0.007129	237.643033	37.894333	0.000992	33.08053
CHILDREN (1-6 YEARS OLD)	0.017941	0.019957	665.218267	67.178867	0.002363	78.75220
CHILDREN (7-12 YEARS OLD)	0.010347	0.011886	396.185100	51.300767	0.001603	53.44403
MALES (13-19 YEARS OLD)	0.006314	0.007362	245.396100	34.925100	0.001041	34.69573
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)	0.005695	0.006633	221.111667	31.278267	0.000916	30.52033
MALES (20 YEARS AND OLDER)	0.004765	0.005648	188.257333	29.427500	0.000821	27.38030
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)	0.005086	0.006006	200.206267	30.689300	0.000810	26.98940

*Current TMRC does not include new or pending tolerances.
**New TMRC includes new, pending, and published tolerances.

TOLERANCE ASSESSMENT SUMMARY FOR Chlorpyrifos
USING ANTICIPATED RESIDUES
CASWELL #219AA

DATE: 02/18/94

ANALYSIS FOR POPULATION SUB-GROUP: U.S. POPULATION - 48 STATES

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)		
RESULT IN AN ARC OF:	0.001031	MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO:	34.377	% OF THE ADI.
PROPOSED NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
RESULT IN AN ARC OF:	0.000006	MG/KG/DAY
THESE NEW ANTICIPATED RESIDUES WILL OCCUPY:	0.216	% OF THE ADI.
IF THE NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
ARE APPROVED THE RESULTANT ARC WILL BE:	0.001038	MG/KG/DAY
THE NEW ARC WILL OCCUPY	34.593	% OF THE ADI.
OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE		
CURRENT NEW PETITION HAVE AN ARC OF:	0.000061	MG/KG/DAY
THIS ARC WILL OCCUPY	2.049	% OF THE ADI.
IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE		
CURRENT NEW PETITION) ARE GRANTED		
THE RESULTANT ARC WILL BE:	0.001099	MG/KG/DAY
THE TOTAL ARC WILL OCCUPY	36.642	% OF THE ADI.

ANALYSIS FOR POPULATION SUB-GROUP: NON-NURSING INFANTS (< 1 YEAR OLD)

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)		
RESULT IN AN ARC OF:	0.002838	MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO:	94.609	% OF THE ADI.
PROPOSED NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
RESULT IN AN ARC OF:	0.000004	MG/KG/DAY
THESE NEW ANTICIPATED RESIDUES WILL OCCUPY:	0.136	% OF THE ADI.
IF THE NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
ARE APPROVED THE RESULTANT ARC WILL BE:	0.002842	MG/KG/DAY
THE NEW ARC WILL OCCUPY	94.745	% OF THE ADI.
OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE		
CURRENT NEW PETITION HAVE AN ARC OF:	0.000008	MG/KG/DAY
THIS ARC WILL OCCUPY	0.268	% OF THE ADI.
IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE		
CURRENT NEW PETITION) ARE GRANTED		
THE RESULTANT ARC WILL BE:	0.002850	MG/KG/DAY
THE TOTAL ARC WILL OCCUPY	95.013	% OF THE ADI.

ANALYSIS FOR POPULATION SUB-GROUP: CHILDREN (1-6 YEARS OLD)

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)		
RESULT IN AN ARC OF:	0.002284	MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO:	76.118	% OF THE ADI.
PROPOSED NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
RESULT IN AN ARC OF:	0.000019	MG/KG/DAY
THESE NEW ANTICIPATED RESIDUES WILL OCCUPY:	0.634	% OF THE ADI.
IF THE NEW ANTICIPATED RESIDUES (CURRENT PETITION ONLY)		
ARE APPROVED THE RESULTANT ARC WILL BE:	0.002303	MG/KG/DAY
THE NEW ARC WILL OCCUPY	76.752	% OF THE ADI.
OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE		
CURRENT NEW PETITION HAVE AN ARC OF:	0.000056	MG/KG/DAY
THIS ARC WILL OCCUPY	1.874	% OF THE ADI.
IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE		
CURRENT NEW PETITION) ARE GRANTED		
THE RESULTANT ARC WILL BE:	0.002359	MG/KG/DAY
THE TOTAL ARC WILL OCCUPY	78.625	% OF THE ADI.