



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

JAN 30 1989

pc 163301

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

MEMORANDUM

SUBJECT: Acephate: TAS Dietary Exposure Analysis

FROM: Susan L. Stanton *Susan L. Stanton* 01/27/89
Tolerance Assessment Staff
HED/SACB (TS-769C)

THRU: Bruce Jaeger *BJ* 1/30/89
Head, Special Analysis and Outreach Section
HED/SACB (TS-769C)

TO: John Tice, PM-16
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Action Requested

SACB has been asked to provide a TAS dietary exposure analysis for acephate, incorporating anticipated residue and percent of crop treated data from Dietary Exposure Branch's recent review (memo. Suhre to Tice, 01/12/89).

Discussion

A TAS chronic exposure analysis was conducted using a reference dose (ADI) of 0.004 mg/kg body wt/day for cholinesterase inhibition, based on the LEL of 0.12 mg/kg/day from a 90-day rat feeding study with an uncertainty factor of 30. This value was approved at the Agency level January 18, 1989.

The food uses evaluated were those established under 40 CFR 180.108 and 185.100. The residues used in the analysis were published tolerances and anticipated residues provided by DEB. Table 1 contains a complete listing of residues used in the analysis.

Acephate tolerances are established for residues of the parent compound and its metabolite, methamidophos. Since the purpose of this analysis is to estimate acephate dietary exposure only, DEB's values reflect only the anticipated residues for the parent compound. Anticipated residues were provided for all 40 CFR 180.108 food uses. In general, average residues from FDA domestic monitoring data were used when available (beans, brussels sprouts, cauliflower, celery, cranberries, lettuce, and

peppers); otherwise, average residues from field studies were used (cottonseed, macadamia nuts, mint, peanuts, and soybeans). Residues derived from field trials were adjusted to reflect the percent of crop treated (except for macadamia nuts and mint where this information was unavailable). Residues for meat, milk, poultry, and eggs were extrapolated from animal feeding studies and average residues in or on feed items. These values also reflect the percent of crop treated.

A food additive tolerance of 0.02 ppm is established for residues of acephate and its methamidaphos metabolite in or on all foods (except those covered by a higher tolerance) from applications of acephate in food handling establishments (40 CFR 185.100). Anticipated residues are not available for this use (personal communication from Francis Suhre, 01/26/89). Therefore, the TAS analysis uses the established tolerance of 0.02 ppm for all foods other than those discussed above. This conservative approach no doubt overestimates exposure to acephate from the food handling establishment use. However, a more realistic estimate is not possible at this time.

The TAS chronic analysis estimates average daily dietary exposure for the overall U.S. population and each of 22 population subgroups and compares these estimates to the acceptable daily intake (See Table 2). An analysis based on tolerances and 100% crop treated and the analysis incorporating available anticipated residues and percent of crop treated data are discussed separately below.

I. Analysis Based on Tolerances and Assuming 100% Crop treated

The Theoretical Maximum Residue Contribution (TMRC) for the overall U.S. population is estimated to be 0.006255 mg/kg/day, which occupies approximately 156 percent of the ADI. The two most highly exposed population subgroups are non-nursing infants less than 1 year old (TMRC = 0.012443 mg/kg/day or 311% of the ADI) and children, 1 to 6 years old (TMRC = 0.010047 mg/kg/day or 251% of the ADI). The attached Table 3 contains estimates of exposure from individual commodities or commodity groups, including an estimate of exposure from the food handling establishment use. These estimates are located in columns 2, 3, and 4 for the overall population, infants, and children, respectively. Please note that exposure estimates in this table are expressed as ug/kg/day, rather than mg/kg/day as they are on the analysis summary page (Table 2).

II. Analysis Incorporating Anticipated Residues and Percent Of Crop Treated Data

The Anticipated Residue Contribution (ARC) for the overall U.S. population is estimated to be 0.000244 mg/kg/day, which occupies 6% of the ADI. Most of the estimated exposure is from

the food handling establishment use (0.000204 mg/kg/day or 5.1% of the ADI), which is based on tolerance level residues of 0.02 ppm in or on all foods.

The ARC for non-nursing infants is calculated as 0.000616 mg/kg/day, which occupies 15.4% of the ADI, while that for children, 1 to 6 years, is estimated to be 0.000520 mg/kg/day or 13% of the ADI. Again, most of the estimated exposure is from the food handling establishment use. Columns 5, 6, and 7 of the attached Table 3 contain detailed information on commodity contribution to total exposure. In addition, footnotes to Table 3 describe the residues used in the analysis for each commodity.

CC: Stanton (SACB), Caswell File #002A, TAS File, Suhre (DEB), Jaeger (SACB), Engler (SACB), Locke (IRSB).

Table 1

PAGE: 1

DATE: 01/23/89

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF --330	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RFD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RFD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular carcinoma).	Q*= 0.009100	and plasma ChE activity.	
	ONCO: Class C (TOX NOTE).			Q* calculated.	WHO last reviewed 1988.

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	9H5216	P 0.020000	0.020000		100.00	0.020000
01002AA	BLACKBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01002AA	BLACKBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01003AA	BOYSENBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01004AA	DEWBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01005AA	LOGANBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01006AA	RASPBERRIES	70 RAW-FROZEN	9H5216	P 0.020000	0.020000		100.00	0.020000
01007AA	YOUNGBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01009AA	BLUEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01010AA	CRANBERRIES	10 RAW-FRESH OR NFS	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRIES	21 COOKED-NFS	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRIES	31 COOKED-FRESH OR CANNED	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRY-JUICE	15 RAW-FRESH OR CANNED	3E2770	P 0.500000	0.010000		100.00	0.010000
01010AA	CRANBERRY-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01011AA	CURRENTS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01012AA	ELDERBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01013AA	GOOSEBERRIES	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
01014AA	GRAPES-RAISINS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
01014AA	GRAPES-RAISINS	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
01014AA	GRAPES-RAISINS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000
01014AA	GRAPES-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
01014AA	GRAPES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
01014AA	GRAPES-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
01015AA	HUCKLEBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
01016AA	STRAWBERRIES	70 RAW-FROZEN	9H5216	P 0.020000	0.020000		100.00	0.020000
01024AA	JUNE BERRY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

DATE: 01/23/89

PAGE: 2

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RfD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA RfD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular carcinoma)	Q*= 0.009100	and plasma ChE activity.	
	ONCO: Class C (TOX NOTE)		Q* calculated.		WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
01025AA	MULBERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
02001AA	CITRUS CITRON	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
02002AA	GRAPEFRUIT-UNSP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
02002AB	GRAPEFRUIT-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02002AB	GRAPEFRUIT-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02002JA	GRAPEFRUIT-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02002JA	GRAPEFRUIT-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02003AA	KUMQUATS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02004AA	LEMONS-UNSPEC	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02004AA	LEMONS-UNSPEC	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
02004AB	LEMONS-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02004AB	LEMONS-PULP	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
02004HA	LEMONS-PEEL	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02004HA	LEMONS-PEEL	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02004JA	LEMONS-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
02004JA	LEMONS-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02004JA	LEMONS-JUICE	31 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
02005AA	LIMES-UNSPEC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
02005AB	LIMES-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02005HA	LIMES-PEEL	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02005JA	LIMES-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
02005JA	LIMES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02005JA	LIMES-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02006AA	ORANGES-UNSPEC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
02006AB	ORANGES-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02006AB	ORANGES-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02006HA	ORANGES-PEEL	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02006HA	ORANGES-PEEL	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
02006HA	ORANGES-PEEL	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
02006JA	ORANGES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02006JA	ORANGES-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
02007AA	TANGELOS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02008AA	TANGERINES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
02008AA	TANGERINE-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
03001AA	ALMONDS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
03001AA	ALMONDS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
03001AA	ALMONDS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
03002AA	BRAZIL NUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
03002AA	BRAZIL NUTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A											
DATE: 01/23/89 PAGE: 3											
FOOD CODE	FOOD	STUDY TYPE	EFFECTS	TOLERANCE (ppm)	PET. #	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	STATUS	
										DATA GAPS/COMMENTS	
03003AA	CASHEWS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03003AA	CASHEWS	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03004AA	CHESTNUTS	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03005AA	FILBERTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03005AA	FILBERTS	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03005AA	FILBERTS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03006AA	HICKORY NUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03007AA	MACADAMIA NUTS	10 RAW-FRESH OR NFS	4E3028	P 0.050000	9H5216	0.010000		100.00	0.010000		
03008AA	PECANS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03008AA	PECANS	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03008AA	PECANS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03008AA	PECANS	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03008AA	PECANS	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03009AA	WALNUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03009AA	WALNUTS	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03009AA	WALNUTS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03010AA	BUTTER NUTS	00 NOT SPECIFIED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03011AA	PISTACHIO NUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
03013AA	BEECHNUTS	00 NOT SPECIFIED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04001AA	APPLES-FRESH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04001AA	APPLES-FRESH	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04001AA	APPLES-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04001AA	APPLES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04001DA	APPLES-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04001DA	APPLES-DRIED	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04001DA	APPLES-DRIED	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04001JA	APPLES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04001JA	APPLES-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04002AA	CRABAPPLES	00 NOT SPECIFIED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04003AA	PEARS-FRESH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04003AA	PEARS-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04003AA	PEARS-FRESH	51 COOKED-CANNED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04003AA	PEARS-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04003DA	PEARS-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
04003DA	PEARS-DRIED	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		
04004AA	QUINCES	00 NOT SPECIFIED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
05001AA	APRICOTS-FRESH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
05001AA	APRICOTS-FRESH	21 COOKED-NFS	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
05001AA	APRICOTS-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	9H5216	0.020000		100.00	0.020000		
05001DA	APRICOTS-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	9H5216	0.020000C		100.00	0.020000		

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A										DATE: 01/23/89	PAGE: 4
FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	
				ADI	SF						
050001DA	APRICOTS-DRIED	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050002AA	CHERRIES-FRESH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050002AA	CHERRIES-FRESH	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050002AA	CHERRIES-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050002AA	CHERRIES-FRESH	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050002DA	CHERRIES-DRIED	00 NOT SPECIFIED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050002JA	CHERRIES-JUICE	15 RAW-FRESH OR CANNED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050002JA	CHERRIES-JUICE	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050003AA	NECTARINES	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050004AA	PEACHES-FRESH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050004AA	PEACHES-FRESH	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050004AA	PEACHES-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050004AA	PEACHES-FRESH	51 COOKED-CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050004DA	PEACHES-DRIED	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050004DA	PEACHES-DRIED	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050005AA	PLUMS-FRESH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050005AA	PLUMS-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
050005DA	PLUMS-PRUNES	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050005DA	PLUMS-PRUNES	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050005DA	PLUMS-PRUNES	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050005JA	PRUNE-JUICE	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
050005JA	PRUNE-JUICE	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060001AA	AVOCADOS	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060002AA	BANANAS-UNSPEC	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060002AB	BANANAS-FRESH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060002AB	BANANAS-FRESH	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060002AB	BANANAS-FRESH	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060002DA	BANANAS-DRIED	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060002DA	BANANAS-DRIED	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003AA	COCONUT-FRESH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003AA	COCONUT-FRESH	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003DA	COCONUT-COPRA	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003DA	COCONUT-COPRA	21 COOKED-NFS	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003DA	COCONUT-COPRA	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003DA	COCONUT-COPRA	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P	0.020000	0.020000C	100.00	0.020000		0.020000	
060003JA	COCONUT-WATER	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060004AA	DATES	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060004AA	DATES	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060005AA	FIGS	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	
060005AA	FIGS	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000		0.020000	

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

PAGE: 5

DATE: 01/23/89

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP Rfd= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm		EPA Rfd= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma ChE activity.	
	ONCO: Class C (TOX WOTE).	carcinoma).	Q+= 0.009100	Q+ calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
06005AA	FIGS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06006AA	GUAVA	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
06007AA	MANGOES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06007AA	MANGOES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06008AA	LOQUATS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
06009AA	OLIVES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AA	PAPAYAS-UNSPEC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AB	PAPAYAS-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06010AB	PAPAYAS-PULP	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
06010DA	PAPAYAS-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06010JA	PAPAYAS-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06011AA	PAPAWAS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06012AA	PERSIMMONS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06013AA	PINEAPPLE-PULP	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013DA	PINEAPPLE-DRIED	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	15 RAW-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
06013JA	PINEAPPLE-JUICE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06014AA	PASSION FRUIT	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06015AA	POMEGRANATES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06015AA	POMEGRANATES	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06016AA	PLANTAINS	21 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
06016AA	PLANTAINS	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06017AA	LYCHEES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000C		100.00	0.020000
06017DA	LYCHEE-DRIED	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06018AA	KIWI	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
06020AA	ACEROLA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06021AA	GINKGO NUTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06022AA	MANEY	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06023AA	PITANGA	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06024AA	SOURSOP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
06025AA	SUGAR APPLES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A DATE: 01/23/89 PAGE: 6

CHEMICAL		STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
FOOD CODE	FOOD	FOOD FORM		PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	RES. VALUE USED	
	Acephate	90d feeding- rat	Inhibition of brain ChE.								
	Caswell #002A	NOEL= 0.0000 mg/kg									
	CAS No. 30560-19-1	0.00 ppm									
	A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity								
	CFR No. 180.108	2.00 ppm	in mice (hepatocellular carcinoma)								
		ONCO: Class C (TOX NOTE)									
										</	

Table 1. (con't.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

PAGE: 7

DATE: 01/23/89

CHEMICAL	STUDY TYPE	EFFECTS	TOLERANCE (ppm)	PET. #	FOOD FORM	FOOD	FOOD CODE	REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS
								ADI	SF --230			
Acephate	90d feeding- rat	Inhibition of brain CHE.								No data gaps.		HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg							OPP RED= 0.004000		1+2yr rat feeding study co-		EPA deferred 11/25/86.
CAS No. 30560-19-1	0.00 ppm							EPA RED= 0.004000		critical: LEL=0.25 mg/kg;		EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity								inhibition of brain, RBC,		
CFR No. 180.108	2.00 ppm	in mice (hepatocellular carcinoma)						Q*= 0.009100		and plasma CHE activity.		WHO last reviewed 1988.
	ONCO: Class C (TOX MOTE)									Q* calculated.		

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
10002AA	CANTALOUPE-UNSP	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10002AB	CANTALOUPE-PULP	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10002AB	CANTALOUPE-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10003AA	CASABAS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10004AA	CRENSHAW	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10005AA	HONEYDEW MELONS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10007AA	PERSION MELONS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
10008AA	WATERMELON	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10008AA	WATERMELON	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000
10010AA	CUCUMBERS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
10011AA	PUMPKIN	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
10013AA	SQUASH-SUMMER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10013AA	SQUASH-SUMMER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10014AA	SQUASH-WINTER	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
10017AA	BITTER MELON	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
10020AA	TOMELGOURD	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11001AA	EGGPLANT	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
11003AA	PEPPERS, SWEET	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AA	PEPPERS, SWEET	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AB	CHILI PEPPERS	00 NOT SPECIFIED	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11003AD	PEPPERS-OTHER	51 COOKED-CANNED	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	10 RAW-FRESH OR NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	21 COOKED-NFS	4F3098	P 4.000000	0.200000		100.00	0.200000
11004AA	PIMIENTOS	31 COOKED-FRESH OR CANNED	4F3098	P 4.000000	0.200000		100.00	0.200000
11005AA	TOMATOES-WHOLE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005AA	TOMATOES-WHOLE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005AA	TOMATOES-WHOLE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
11005JA	TOMATOES-JUICE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005JA	TOMATOES-JUICE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
11005RA	TOMATOES-PUREE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1 (con't)

PAGE: 8

DATE: 01/23/89

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

CHEMICAL		STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
FOOD CODE	FOOD	FOOD FORM		PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)		
		90d feeding- rat	NOEL=							Inhibition of brain ChE.	ADI
	Caswell #002A		0.0000 mg/kg				OPP RfD= 0.004000		EPA deferred 11/25/86.		
	CAS No. 30560-19-1		0.00 ppm				EPA RfD= 0.004000		critical: LEL=0.25 mg/kg;		EPA verified 01/18/89.
	A.I. CODE: 103301	LEL=	0.1200 mg/kg		Evidence of oncogenicity				inhibition of brain, RBC,		
	CFR No. 180.108		2.00 ppm		in mice (hepatocellular carcinoma).				and plasma ChE activity.		
		ONCO: Class C (TOX NOTE).				Q*= 0.009100		Q* calculated.		WHO last reviewed 1988.	
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)			
111005RA	TOMATOES-PUREE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005RA	TOMATOES-PUREE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005RA	TOMATOES-PUREE	32 COOKED-FRESH OR CANNED-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005RA	TOMATOES-PASTE	51 COOKED-CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005TA	TOMATOES-PASTE	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005TA	TOMATOES-PASTE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005TA	TOMATOES-PASTE	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111005UA	TOMATOES-CATSUP	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000			
111006AA	GROUNDCHERRIES	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13001AA	BEETS-TOPS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13001AA	BEETS-TOPS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13002AA	CELERY	10 RAW-FRESH OR NFS	5F1578	P 10.00000	0.070000		100.00	0.070000			
13002AA	CELERY	21 COOKED-NFS	5F1578	P 10.00000	0.070000		100.00	0.070000			
13003AA	CHICORY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13005AA	BROCCOLI	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13005AA	BROCCOLI	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13005AA	BROCCOLI	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13006AA	BRUSSEL SPROUTS	21 COOKED-NFS	7F1899	P 3.000000	0.010000		100.00	0.010000			
13006AA	BRUSSEL SPROUTS	23 COOKED-FRESH-BOILED	7F1899	P 3.000000	0.010000		100.00	0.010000			
13007AA	CABBAGE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13007AA	CABBAGE	11 RAW-FRESH-PICKLED, CORNED, OR CURED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13007AA	CABBAGE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13008AA	CAULIFLOWER	10 RAW-FRESH OR NFS	7F1899	P 2.000000	0.010000		100.00	0.010000			
13008AA	CAULIFLOWER	21 COOKED-NFS	7F1899	P 2.000000	0.010000		100.00	0.010000			
13009AA	COLLARDS	51 COOKED-CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13009AA	COLLARDS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13010AA	CABBAGE-CHINESE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13010AA	CABBAGE-CHINESE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13011AA	KALE	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13012AA	KOHLRABI	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13013AA	LETTUCE-LEAFY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13014AA	DANDELION	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13015AA	ENDIVE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13015AA	ENDIVE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13016AA	FENNEL	00 NOT SPECIFIED	5F1578	P 10.00000	0.070000		100.00	0.070000			
13017AA	CRESS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000			
13018AA	ARTICHOKE-GLOBE	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13020AA	LETTUCE-UNSPEC	10 RAW-FRESH OR NFS	3F1375	P 10.00000	0.010000		100.00	0.010000			
13021AA	MUSTARD GREENS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000			
13021AA	MUSTARD GREENS	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000			

Table 1 (cont.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A												DATE: 01/23/89	PAGE: 9
FOOD CODE	FOOD	CHEMICAL	STUDY TYPE		EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS		
			90d feeding- rat	NOEL=	Inhibition of brain ChE.	ADI	SF -->30	OPP RfD=	No data gaps.	HED complete			
		Caswell #002A	0.0000 mg/kg	0.00				0.004000	1+2yr rat feeding study co-	EPA deferred 11/25/86.			
		CAS No. 30560-19-1	0.00 ppm					EPA RfD=	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.			
		A.I. CODE: 103301	LEL=		Evidence of oncogenicity				inhibition of brain, RBC,				
		CFR No. 180.108	2.00 ppm		in mice (hepatocellular				and plasma ChE activity.				
			ONCO: Class C (TOX NOTE).		carcinoma).	Q*=	0.009100	Q* calculated.	WHO last reviewed 1988.				
			FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)				
13022AA	PARSLEY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13022AA	PARSLEY	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13022AA	PARSLEY	53 COOKED-CANNED-BOILED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13023AA	RHUBARB	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13023AA	RHUBARB	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13023AA	RHUBARB	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13023AA	RHUBARB	62 COOKED-FRESH OR FROZEN-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13024AA	SPINACH	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13024AA	SPINACH	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13024AA	SPINACH	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13025AA	SWISS CHARD	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13025AA	SWISS CHARD	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13025AA	SWISS CHARD	63 COOKED-FRESH OR FROZEN-BOILED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13026AA	TURNIPS-TOPS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13026AA	TURNIPS-TOPS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13026AA	TURNIPS-TOPS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13027AA	WATERCRESS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13027AA	WATERCRESS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13034AA	TARO-GREENS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13039AA	CRESS,UPLAND	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13045AA	LETTUCE-HEAD	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13045AA	LETTUCE-HEAD	21 COOKED-NFS	3F1375	P 10.00000	0.010000	100.00	0.010000	0.010000					
13047AA	LAMBSQUARTER	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13048AA	CACTUS PADS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13049AA	GRAPES-LEAVES	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
13999AA	LEAFY ORIENT VEG	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14001AA	BEETS-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14001AA	BEETS-ROOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14001AA	BEETS-ROOTS	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14001AA	BEETS-ROOTS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14003AA	CARROTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14003AA	CARROTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14003AA	CARROTS	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14003AA	CARROTS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14003AA	CARROTS	51 COOKED-CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14004AA	CELERIAC	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14005AA	CHIVES	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14006AA	TARO-ROOT	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14007AA	GARLIC	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					
14007AA	GARLIC	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000	0.020000					

Table 1 (con't.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A										DATE: 01/23/89	PAGE: 10
FOOD CODE	FOOD	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS	RES. VALUE USED IN TAS RUN (ppm)			
				ADI	SF						
14007AA	Caswell #002A	90d feeding- rat	Inhibition of brain ChE.	ADI	SF -->30	No data gaps.	HED complete 3/14/86.				
14009AA	CAS No. 30560-19-1	NOEL= 0.0000 mg/kg		OPP RfD= 0.004000		2yr rat feeding study co-	EPA deferred 11/25/86.				
14010AA	A.I. CODE: 103301	0.00 ppm		EPA RfD= 0.004000		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.				
14011AA	CFR No. 180.108	LEL= 0.1200 mg/kg	Evidence of oncogenicity			inhibition of brain, RBC,					
14011AA		2.00 ppm	in mice (hepatocellular carcinoma).	Q*= 0.009100		and plasma ChE activity.					
14011AA		ONCO: Class C (TOX NOTE).				Q* calculated.	WHO last reviewed 1988.				
		TOLERANCE		ANTICIPATED		AR STATISTIC TYPE		% CROP TREATED			
		PET. #		RESIDUE (ppm)							
		FOOD FORM									
14007AA	GARLIC	32 COOKED-FRESH OR CANNED-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14009AA	ARTICHOKES-JER	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14010AA	LEEKs	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14011AA	ONIONS-DRY-BULB	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14011AA	ONIONS-DRY-BULB	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14011AA	ONIONS-DRY-BULB	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14011AA	ONIONS-DRY-BULB	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14011DA	ONIONS-DRIED	12 RAW-FRESH-DRIED	9H5216	P 0.020000	0.020000C	100.00	0.020000				
14013AA	POTATO(WH)-WHOLE	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AA	POTATO(WH)-WHOLE	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AA	POTATO(WH)-WHOLE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AB	POTATO(WH)-UNPEE	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AC	POTATO(WH)-PULP	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AC	POTATO(WH)-PULP	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AC	POTATO(WH)-PULP	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013AC	POTATO(WH)-PULP	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000C	100.00	0.020000				
14013DA	POTATO(WH)-DRY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14013DA	POTATO(WH)-DRY	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000C	100.00	0.020000				
14013HA	POTATO(WH)-PEEL	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14014AA	RADISHES-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14014AB	RADISHES-TOPS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14015AA	RUTABAGAS-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14015AB	RUTABAGAS-ROOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14015AB	RUTABAGAS-TOPS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14016AA	SALSIFY	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14017AA	SHALLOTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14018AA	SWEETPOTATOES	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14018AA	SWEETPOTATOES	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14018AA	SWEETPOTATOES	51 COOKED-CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14019AA	TURNIPS-ROOTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14019AA	TURNIPS-ROOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14021AA	PARSNIPS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14024AA	YAMBEAN, TUBER	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14026AA	CASSAVA	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14026AA	CASSAVA	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14026AB	TAPIOCA	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14026AB	TAPIOCA	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14028AA	YAUTIA, TANNIER	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				
14030AA	PARSLEY ROOTS	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000	100.00	0.020000				
14031AA	WATER CHESTNUTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000	100.00	0.020000				

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

DATE: 01/23/89

PAGE: 11

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Acaphate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RFD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.
CAS NO. 30560-19-1	0.00 ppm		EPA RFD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	
CFR NO. 180.108	2.00 ppm	in mice (hepatocellular carcinoma).	Q*= 0.009100	and plasma ChE activity.	
	ONCO: Class C (TOX NOTE).			Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
14031AA	WATER CHESTNUTS	9H5216	P 0.020000	0.020000		100.00	0.020000
15001AA	BEANS-DRY-GRT NO 00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AB	BEANS-DRY-KIDNEY 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AB	BEANS-DRY-KIDNEY 31 COOKED-FRESH OR CANNED	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AC	BEANS-DRY-LIMA 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AD	BEANS-DRY-NAVY 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AD	BEANS-DRY-NAVY 31 COOKED-FRESH OR CANNED	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AE	BEANS-DRY-OTHER 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AE	BEANS-DRY-OTHER 25 COOKED-FRESH-FRIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AE	BEANS-DRY-OTHER 31 COOKED-FRESH OR CANNED	5F1578	P 3.000000	0.050000		100.00	0.050000
15001AF	BEANS-DRY-PINTO 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15002AA	BEANS-SUCC-LIMA 10 RAW-FRESH OR NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15002AA	BEANS-SUCC-LIMA 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15003AA	BEANS-SUCC-GREEN 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15003AB	BEANS-SUCC-OTH 10 RAW-FRESH OR NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15003AB	BEANS-SUCC-OTH 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15003AC	BEANS-SUCC-WAX 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15004AA	CORN, POP 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15005AA	CORN, SWEET 10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15005AA	CORN, SWEET 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15005AA	CORN, SWEET 31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
15006AA	PEANUTS-WHOLE 10 RAW-FRESH OR NFS	2F2632	P 0.020000	0.010000		10.00	0.010000
15006AA	PEANUTS-WHOLE 21 COOKED-NFS	2F2632	P 0.020000	0.010000		10.00	0.010000
15006AA	PEANUTS-WHOLE 22 COOKED-FRESH-BAKED	2F2632	P 0.020000	0.020000		100.00	0.020000
15007AA	PEAS DRY-GARDEN 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15007AA	PEAS DRY-GARDEN 31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
15009AA	PEAS SUCC-GARDEN 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15009AA	PEAS SUCC-GARDEN 31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
15011AA	LENTILES-WHOLE 31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
15011AB	LENTILES-SPLIT 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15013AA	MUNG BEANS 10 RAW-FRESH OR NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15013AA	MUNG BEANS 21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15015AA	OKRA 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15015AA	OKRA 25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
15018AA	SUNFLOWER-SEEDS 10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15020AA	CAROB 10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15020AA	CAROB 21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15020AA	CAROB 22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
15021AA	ALFALFA SPROUTS 10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15022AA	BEANS-DRY-BROAD 00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A							DATE: 01/23/89	PAGE: 12
CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS			
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI SF -->30	No data gaps.	HED complete 3/14/86.			
Caswell #002A	NOEL= 0.0000 mg/kg		OPP RfD= 0.004000	2yr rat feeding study co-	EPA deferred 11/25/86.			
CAS No. 30560-19-1	0.00 ppm		EPA RfD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.			
A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,				
CFR No. 180.108	2.00 ppm	in mice (hepatocellular		and plasma ChE activity.				
	ONCO: Class C (TOX WOTE).	carcinoma).	O*= 0.009100	Q* calculated.	WHO last reviewed 1988.			

FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
15022AB	BEANS-SUCC-BROAD	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15023AA	BEANS-DRY-PIGEON	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15026AA	SESAME SEEDS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15026AA	SESAME SEEDS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
15027AA	BEANS-UNSPEC	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15028AA	PINEUTS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15028AA	PINEUTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
15029AA	SOYBEAN-SPROUTED	00 NOT SPECIFIED	3F1375	P 1.000000	0.060000		1.00	0.000600
15030AA	BEANS-DRY-HYAC	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15030AB	BEANS-SUCC-HYAC	00 NOT SPECIFIED	5F1578	P 3.000000	0.050000		100.00	0.050000
15031AA	BLKEYE PEAS-DRY	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15032AA	BEANS-DRY	21 COOKED-NFS	5F1578	P 3.000000	0.050000		100.00	0.050000
15032AA	BEANS-DRY	31 COOKED-FRESH OR CANNED	5F1578	P 3.000000	0.050000		100.00	0.050000
16003AA	MUSHROOMS	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000
16003AA	MUSHROOMS	53 COOKED-CANNED-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16004AA	ONIONS-GREEN	25 COOKED-FRESH-FRIED	9H5216	P 0.020000	0.020000		100.00	0.020000
16007AA	POKE GREENS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
16008AA	BAMBOO SHOOTS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24001AA	BARLEY	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002HA	CORN, GRAIN-BRAN	00 NOT SPECIFIED	9H5216	P 0.020000	0.020000		100.00	0.020000
24002SA	CORN SUGAR	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
24002SA	CORN SUGAR	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000C		100.00	0.020000
24003AA	OATS	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24003AA	OATS	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24003AA	OATS	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AA	RICE-ROUGH	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AA	RICE-ROUGH	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	22 COOKED-FRESH-BAKED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	23 COOKED-FRESH-BOILED	9H5216	P 0.020000	0.020000		100.00	0.020000
24004AB	RICE-MILLED	31 COOKED-FRESH OR CANNED	9H5216	P 0.020000	0.020000		100.00	0.020000

Table 1. (con't.)

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ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

CHEMICAL		STUDY TYPE		EFFECTS		TOLERANCE		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS	
FOOD CODE	FOOD	FOOD FORM	PET. #	(ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)					
	Acephate	90d feeding- rat	Inhibition of brain ChE.		ADI	SF --30	No data gaps.	HED complete 3/14/86.					
	Caswell #002A	NOEL=			OPP RFD= 0.004000		2yr rat feeding study co-	EPA deferred 11/25/86.					
	CAS No. 30560-19-1	0.0000 mg/kg			EPA RFD= 0.004000		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.					
	A.I. CODE: 103301	LEL=	Evidence of oncogenicity				inhibition of brain, RBC,						
	CFR No. 180.108	0.1200 mg/kg	in mice (hepatocellular carcinoma).		Q*= 0.009100		and plasma ChE activity.	WHO last reviewed 1988.					
		2.00 ppm					Q* calculated.						
		ONCO: Class C (TOX MOTE).											
24005AA	RYE-ROUGH	00 NOT SPECIFIED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24005GA	RYE-GERM	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24005WA	RYE-FLOUR	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24005WA	RYE-FLOUR	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24006AA	SORGHUM	00 NOT SPECIFIED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007GA	WHEAT-ROUGH	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007HA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007RA	WHEAT-GERM	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007WA	WHEAT-GERM	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007GA	WHEAT-BRAN	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007WA	WHEAT-FLOUR	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007GA	WHEAT-FLOUR	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
24007HA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24012AA	MILLET	25 COOKED-FRESH-FRIED	9H5216	P	0.020000	0.020000	100.00	0.020000					
24012GA	MILLET	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25001AA	HONEY	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25001GA	HONEY	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25001HA	HONEY	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25002AA	BEET SUGAR	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25002GA	BEET SUGAR	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25002HA	BEET SUGAR	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25002SA	BEET SUGAR	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003AA	CANE SUGAR	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003GA	CANE SUGAR	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003HA	CANE SUGAR	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003SA	CANE SUGAR	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003AA	SUGAR-MOLASSES	31 COOKED-FRESH OR CANNED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003GA	SUGAR-MOLASSES	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25003HA	SUGAR-MOLASSES	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
25004AA	MAPLE SYRUP	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
25004GA	MAPLE SYRUP	10 RAW-FRESH OR NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
26001AA	BUCKWHEAT	21 COOKED-NFS	9H5216	P	0.020000	0.020000	100.00	0.020000					
26001GA	BUCKWHEAT	22 COOKED-FRESH-BAKED	9H5216	P	0.020000	0.020000	100.00	0.020000					
26001HA	BUCKWHEAT	25 COOKED-FRESH-FRIED	9H5216	P	0.020000	0.020000	100.00	0.020000					

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

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[illegible]

Table 1 (con't.)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A												DATE: 01/23/89	PAGE: 15		
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS
									STUDY TYPE	ADJ	SF	ADJ	SF	ADJ	
CHEMICAL	Acetate	90d feeding- rat	Inhibition of brain ChE.	ADJ	SF -->30	No data gaps.	HED complete 3/14/86.								
	Caswell #002A	NOEL= 0.0000 mg/kg													
	CAS No. 30560-19-1	0.00 ppm													
	A.I. CODE: 103301	LEL= 0.1200 mg/kg	Evidence of oncogenicity												
	CFR No. 180.108	2.00 ppm	in mice (hepatocellular carcinoma).												
		ONCO: Class C (TOX NOTE).													
280810A	SPEARMINT-OIL	00 NOT SPECIFIED	OH2323	P 15.00000	0.020000		100.00	0.020000							
43057AA	VINEGAR	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43057AA	VINEGAR	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43058AA	WINE AND SHERRY	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43058AA	WINE AND SHERRY	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43059AA	DIST ALCOHOL	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43060AA	GELATIN	10 RAW-FRESH OR NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
43060AA	GELATIN	21 COOKED-NFS	9H5216	P 0.020000	0.020000		100.00	0.020000							
500000B	MILK-NON-FAT SOL	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000FA	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000FA	MILK-FAT SOLIDS	21 COOKED-NFS	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000FA	MILK-FAT SOLIDS	51 COOKED-CANNED	3F1375	P 0.100000	0.000100		100.00	0.000100							
500000SA	MILK SUG (LACT)	21 COOKED-NFS	3F1375	P 0.100000	0.000100		100.00	0.000100							
53001BA	BEEF-MEAT BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001BA	BEEF-MEAT BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001BB	BEEF-OTH ORGN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001BB	BEEF-OTH ORGN	51 COOKED-CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001DA	BEEF-DRIED	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	24 COOKED-FRESH-BROILED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001FA	BEEF-FAT	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001KA	BEEF-KIDNEY	21 COOKED-NFS	3F1375	P 0.100000	0.002000		100.00	0.002000							
53001LA	BEEF-LIVER	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001LA	BEEF-LIVER	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001MA	BEEF-LEAN	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001MA	BEEF-LEAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001MA	BEEF-LEAN	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001MA	BEEF-LEAN	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53001MA	BEEF-LEAN	24 COOKED-FRESH-BROILED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53002BA	GOAT-MEAT BYP	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53002BB	GOAT-OTH ORGN	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53002FA	GOAT-FAT	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53002FA	GOAT-FAT	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000							
53002KA	GOAT-KIDNEY	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000							

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

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CHEMICAL	STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
	90d feeding- rat	NOEL=		ADI	SF -->30		
Acephate			Inhibition of brain ChE.			No data gaps.	HED complete 3/14/86.
Caswell #002A		0.0000 mg/kg		OPP RfD= 0.004000		2yr rat feeding study co-	EPA deferred 11/25/86.
CAS No. 30560-19-1		0.00 ppm		EPA RfD= 0.004000		critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.
A.I. CODE: 103301		LEL= 0.1200 mg/kg	Evidence of oncogenicity			inhibition of brain, RBC,	
CFR No. 180.108		2.00 ppm	in mice (hepatocellular			and plasma ChE activity.	
	ONCO: Class C (TOX NOTE).		carcinoma).	Q*= 0.009100		Q* calculated.	WHO last reviewed 1988.

FOOD CODE	FOOD	TOLERANCE (ppm)	PET. #	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)
530021A	GOAT-LIVER	P 0.100000	3F1375	0.001000		100.00	0.001000
53002HA	GOAT-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53002WA	GOAT-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53003AA	HORSE	P 0.100000	3F1375	0.001000		100.00	0.001000
53004AA	RABBIT	P 0.020000	9H5216	0.020000		100.00	0.020000
53004AA	RABBIT	P 0.020000	9H5216	0.020000		100.00	0.020000
53005BA	SHEEP-MEAT BYP	P 0.100000	3F1375	0.001000		100.00	0.001000
53005BB	SHEEP-OTH ORGAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53005FA	SHEEP-FAT	P 0.100000	3F1375	0.001000		100.00	0.001000
53005KA	SHEEP-KIDNEY	P 0.100000	3F1375	0.001000		100.00	0.001000
53005LA	SHEEP-LIVER	P 0.100000	3F1375	0.001000		100.00	0.001000
53005NA	SHEEP-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53005NA	SHEEP-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53006BA	PORK-MEAT BYP	P 0.100000	3F1375	0.001000		100.00	0.001000
53006BB	PORK-OTH ORGAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53006BB	PORK-OTH ORGAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53006FA	PORK-FAT	P 0.100000	3F1375	0.001000		100.00	0.001000
53006FA	PORK-FAT	P 0.100000	3F1375	0.001000		100.00	0.001000
53006FA	PORK-FAT	P 0.100000	3F1375	0.001000		100.00	0.001000
53006FA	PORK-FAT	P 0.100000	3F1375	0.001000		100.00	0.001000
53006KA	PORK-KIDNEY	P 0.100000	3F1375	0.001000		100.00	0.001000
53006LA	PORK-LIVER	P 0.100000	3F1375	0.001000		100.00	0.001000
53006LA	PORK-LIVER	P 0.100000	3F1375	0.001000		100.00	0.001000
53006WA	PORK-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53006WA	PORK-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53006WA	PORK-LEAN	P 0.100000	3F1375	0.001000		100.00	0.001000
53010A	FISH-UNSPEC	P 0.020000	9H5216	0.020000		100.00	0.020000
53013AA	FISH-SHELL	P 0.020000	9H5216	0.020000		100.00	0.020000
53013AA	FISH-SHELL	P 0.020000	9H5216	0.020000		100.00	0.020000
53013AA	FISH-SHELL	P 0.020000	9H5216	0.020000		100.00	0.020000
53014AA	MEAT, GAME	P 0.020000	9H5216	0.020000		100.00	0.020000
53014AA	MEAT, GAME	P 0.020000	9H5216	0.020000		100.00	0.020000
53015AA	FISH-ROE, CAVIAR	P 0.020000	9H5216	0.020000		100.00	0.020000
53015AA	FISH-ROE, CAVIAR	P 0.020000	9H5216	0.020000		100.00	0.020000
53016AA	FISH, FIN-FRESH	P 0.020000	9H5216	0.020000		100.00	0.020000
53016AA	FISH, FIN-FRESH	P 0.020000	9H5216	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	P 0.020000	9H5216	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	P 0.020000	9H5216	0.020000		100.00	0.020000
53017AA	FISH, FIN-SALT	P 0.020000	9H5216	0.020000		100.00	0.020000

Table 1 (con't)

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 002A

PAGE: 17

DATE: 01/23/89

CHEMICAL		STUDY TYPE		EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE	% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	
Acephate		90d feeding- rat.	Inhibition of brain ChE.	IADJ SF -->30	No data gaps.	HED complete 3/14/86.			
Caswell #002A		NOEL= 0.0000 mg/kg		OPP RfD= 0.004000	1/2 yr rat feeding study co-	EPA deferred 11/25/86.			
CAS No. 30560-19-1		0.00 ppm		EPA RfD= 0.004000	critical: LEL=0.25 mg/kg;	EPA verified 01/18/89.			
A.I. CODE: 103301		LEL= 0.1200 mg/kg	Evidence of oncogenicity		in mice (hepatocellular				
CFR No. 180.108		2.00 ppm	carcinoma).	Q*= 0.009100	and plasma ChE activity.	WHO last reviewed 1988.			
		ONCO: Class C (TOX NOTE).			Q* calculated.				
53017DA	FISH, FIN-SLT-DRY	12 RAW-FRESH-DRIED	9H5216	P 0.020000	0.020000C		100.00	0.020000	
53017DA	FISH, FIN-SLT-DRY	21 COOKED-NFS	9H5216	P 0.020000	0.020000C		100.00	0.020000	
55008BA	TURKEY-BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008BA	TURKEY-BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008BA	TURKEY ORGAN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008BA	TURKEY ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HA	TURKEY W/O SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HA	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HB	TURKEY+SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HB	TURKEY+SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55008HC	TURKEY-UNSPEC	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55013BA	POULTRY, OTH-BYP	00 NOT SPECIFIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55013JA	POULTRY, OTHER	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55013MA	POULTRY, OTHER	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AA	EGGS-WHOLE	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55014AC	EGGS-YOLK ONLY	00 NOT SPECIFIED	3F1375	P 0.100000	0.000000		100.00	0.000000	
55015BA	CHICKEN-BYP	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015LA	CHICKEN-ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HA	CHICKEN-W/O SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOTTLED	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HB	CHICKEN+SKIN	21 COOKED-NFS	3F1375	P 0.100000	0.001000		100.00	0.001000	
55015HB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	3F1375	P 0.100000	0.001000		100.00	0.001000	

Table 2

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 01/24/89

PAGE: 1

CHEMICAL INFORMATION			STUDY TYPE	EFFECTS		REFERENCE DOSES		DATA GAPS/COMMENTS		STATUS
Acephate	90d feeding- rat	Inhibition of brain ChE.	ADI	SF -->30	No data gaps.	2yr rat feeding study co-	HED complete 3/14/86.			
Caswell #002A	NOEL=	0.0000 mg/kg	OPP RfD= 0.004000	EPA RfD= 0.004000,	critical: LEL=0.25 mg/kg;	EPA deferred 11/25/86.				
CAS No. 30560-19-1	LEL=	0.1200 mg/kg	Evidence of oncogenicity		inhibition of brain, RBC,	EPA verified 01/18/89.				
A.I. CODE: 103301	2.00 ppm	in mice (hepatocellular			and plasma ChE activity.					
CFR No. 180.108	ONCO: Class C (TOX NOTE).	carcinoma).	Q*= 0.009100		Q* calculated.	WHO last reviewed 1988.				
POPULATION SUBGROUP										
TOTAL TMRC (MG/KG BODY WEIGHT/DAY)			NEW TMRC		DIFFERENCE		EFFECT OF ANTICIPATED RESIDUES			
			CURRENT TMRC*	NEW TMRC**	AS PERCENT OF RFD	AS PERCENT OF RFD	ARC	RFD		
U.S. POPULATION - 48 STATES										
			0.006255	0.006255	156.386825	0.000000	0.000244	6.09105		
U.S. POPULATION - SPRING SEASON										
			0.006198	0.006198	154.959000	0.000000	0.000235	5.87350		
U.S. POPULATION - SUMMER SEASON										
			0.006411	0.006411	160.273200	0.000000	0.000248	6.20778		
U.S. POPULATION - FALL SEASON										
			0.006079	0.006079	151.979900	0.000000	0.000241	6.02330		
U.S. POPULATION - WINTER SEASON										
			0.006176	0.006176	154.393825	0.000000	0.000242	6.04360		
NORTHEAST REGION										
			0.006069	0.006069	151.730250	0.000000	0.000250	6.25870		
NORTH CENTRAL REGION										
			0.006055	0.006055	151.376300	0.000000	0.000236	5.90640		
SOUTHERN REGION										
			0.005841	0.005841	146.029375	0.000000	0.000231	5.76285		
WESTERN REGION										
			0.007301	0.007301	182.530975	0.000000	0.000256	6.40443		
HISPANICS										
			0.007756	0.007756	193.908175	0.000000	0.000279	6.97140		
NON-HISPANIC WHITES										
			0.006264	0.006264	156.588675	0.000000	0.000240	5.99143		
NON-HISPANIC BLACKS										
			0.005106	0.005106	127.658750	0.000000	0.000232	5.79098		
NON-HISPANIC OTHERS										
			0.006871	0.006871	171.776250	0.000000	0.000276	6.91158		
NURSING INFANTS (< 1 YEAR OLD)										
			0.003321	0.003321	83.026675	0.000000	0.000324	8.11073		
NON-NURSING INFANTS (< 1 YEAR OLD)										
			0.012443	0.012443	311.083625	0.000000	0.000616	15.40550		
FEMALES (13+ YEARS, PREGNANT)										
			0.005112	0.005112	127.809525	0.000000	0.000178	4.44533		
FEMALES 13+ YEARS, NURSING										
			0.006506	0.006506	162.651300	0.000000	0.000214	5.34450		
CHILDREN (1-6 YEARS OLD)										
			0.010047	0.010047	251.179550	0.000000	0.000520	13.00453		
CHILDREN (7-12 YEARS OLD)										
			0.008308	0.008308	207.701500	0.000000	0.000348	8.69018		
MALES (13-19 YEARS OLD)										
			0.005780	0.005780	144.499650	0.000000	0.000224	5.60830		
FEMALES (13-19 YEARS OLD, NOT PREG. OR NURSING)										
			0.005369	0.005369	134.217175	0.000000	0.000198	4.94965		
MALES (20 YEARS AND OLDER)										
			0.005118	0.005118	127.944775	0.000000	0.000186	4.64093		
FEMALES (20 YEARS AND OLDER, NOT PREG. OR NURS)										
			0.005517	0.005517	137.930675	0.000000	0.000181	4.52383		

*Current TMRC does not include new or pending tolerances.

**New TMRC includes new, pending, and published tolerances.

Table 3: Commodity Contribution To Acephate Exposure

	Based on Tolerances and 100% Crop Treated:			Based on Anticipated Residues Adjusted For Percent Of Crop Treated:		
	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs
<u>RACS:</u>						
Beans ^c	1.223078 ^a 30.6 ^b	2.978700 74.5	2.275849 56.9	0.020384 0.5	0.049645 1.2	0.037930 0.9
Brussel Sprouts ^c	0.020544 0.5	0.040796 1.0	0.017493 0.4	0.000068 <0.1	0.000136 <0.1	0.000058 <0.1
Cauliflower ^c	0.031674 0.8	0.003545 0.1	0.033779 0.8	0.000158 <0.1	0.000018 <0.1	0.000169 <0.1
Celery ^c	0.611821 15.3	0.234532 5.9	0.799289 20.0	0.004282 0.1	0.001642 <0.1	0.005595 0.1
Cottonseed ^d	0.041052 1.0	0.012132 0.3	0.073733 1.8	0.000677 <0.1	0.000200 <0.1	0.001217 <0.1
Cranberries ^c	0.016901 0.4	0.007877 0.2	0.040685 1.0	0.000338 <0.1	0.000158 <0.1	0.000813 <0.1
Head Lettuce ^c	2.214811 55.4	0.033731 0.8	1.753294 43.8	0.002215 0.1	0.000034 <0.1	0.001753 <0.1
Macadamia Nuts ^e	0.000002 <0.1	<0.000001 <0.1	<0.000001 <0.1	<0.000001 <0.1	<0.000001 <0.1	<0.000001 <0.1
Mint ^e	0.010725 0.3	<0.000001 <0.1	<0.000001 <0.1	0.000044 <0.1	<0.000001 <0.1	<0.000001 <0.1
Peanuts ^d	0.014961 0.4	0.005856 0.1	0.047051 1.2	0.000074 <0.1	0.000029 <0.1	0.000235 <0.1
Peppers ^c	0.137318 3.4	0.014540 0.4	0.170206 4.3	0.006866 0.2	0.000727 <0.1	0.008510 0.2
Soybeans ^d	0.339909 8.5	1.630827 40.8	0.636178 15.9	0.000194 <0.1	0.000842 <0.1	0.000361 <0.1
<u>Secondary Residues in Meat/Milk:</u>						
Eggs ^f	0.058033 1.5	0.060440 1.5	0.129994 3.2	0.000581 <0.1	0.000604 <0.1	0.001299 <0.1
Milk ^f	1.056857 26.4	6.547962 163.7	3.104302 77.6	0.001053 <0.1	0.006527 0.2	0.003094 0.1

(Continued...)

Table 3 (Con't): Commodity Contribution To Acephate Exposure

	Based on Tolerances and 100% Crop Treated:			Based on Anticipated Residues Adjusted For Percent Of Crop Treated:		
	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs	Overall U.S. Population	Non-Nursing Infants, <1 yr	Children 1-6 yrs
Poultry ^f	0.050667 1.3	0.105404 2.6	0.103116 2.6	0.000504 <0.1	0.001053 <0.1	0.001031 <0.1
Red Meat ^f	0.223177 5.6	0.214539 5.4	0.408173 10.2	0.002232 0.1	0.002148 0.1	0.004083 0.1
Food Handling Establishment Use ^g :	0.204000 5.1	0.552000 13.8	0.454000 11.4	0.204000 5.1	0.552000 13.8	0.454000 11.4
Total	6.255530 156.4	12.442881 311.1	10.047142 251.2	0.243670 6.1	0.615763 15.4	0.520148 13.0

^aExposure expressed as ug acephate/kg body wt/day.^bExposure expressed as a percent of the Acceptable Daily Intake (ADI) of 0.004 mg/kg body wt/day.^cAnticipated residues are based on average residue values from FDA surveillance monitoring (FY 86-88). These values were adjusted by processing factors where appropriate (See memo. from Suhre to Tice, 1/12/89).^dAnticipated residues are based on average values from residue field trials adjusted for percent of crop treated.^eAnticipated residues are based on average values from residue field trials. Estimates assume 100% crop treated.^fAnticipated residues are extrapolated from animal feeding studies and average residues in or on feed items. Extrapolated values reflect the percent of feed items treated.^gAnticipated residues are not available for residues of acephate in or on foods resulting from this use. Exposure estimates are based on the tolerance of 0.02 ppm and assume that 100% of foods are treated.