

US EPA ARCHIVE DOCUMENT



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

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MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

SUBJECT: Dietary Exposure Analysis and Carcinogenic Risk Assessment for Cyanazine and Metabolites Using Anticipated Residues

FROM: Stephen A. Schaible *Stephen A. Schaible*
Dietary Risk Evaluation Section
Science Analysis Branch/ HED (H7509C)

TO: Kathy Pearce
Special Review Branch
Special Review and Reregistration Division
(H7508W)

THROUGH: James P. Kariya, Head *Kariya*
Dietary Risk Evaluation Section/SAB
Health Effects Division

W. Brown

The Dietary Risk Evaluation Section was requested to perform a chronic dietary exposure analysis and carcinogenic risk assessment for cyanazine using anticipated residue information generated by CBRS. This analysis is being performed as part of the Special Review of triazines and more specifically is a risk assessment for the cyanazine parent and the seven major metabolites of the parent which contain the triazine ring.

Residue Information

Food uses included in this analysis were those for which anticipated residues were supplied by Chemistry Branch II-Reregistration Support (CBRS) in John Abbotts' memorandum titled "Cyanazine. Determination of Anticipated Residues", dated 9/22/92. Published tolerances exist for the uses of cyanazine on corn grain, cottonseed, sorghum grain, and wheat grain, and are listed in 40 CFR 180.307. In addition to these uses, anticipated residues were supplied by CBRS for secondary residues in meat, milk, poultry, and eggs; no tolerances are established under 40 CFR 180.307 for residues in animal commodities. The lack of tolerances for animal commodities is considered a data gap by CBRS, to be corrected through the reregistration process (personal communication, John Abbotts, 11/5/92).

It should be noted that while the tolerances for cyanazine presently in the CFR reflect the parent compound only, it is OPP's position that the residues of concern for cyanazine are the parent and all metabolites containing the triazine ring (Cover

Memorandum, Cyanazine Registration Standard, E. Saito, 10/10/84; R.B. Perfetti, 10/3/91). Residues given in the CBRS memo and used in this analysis are for the combined residues of the cyanazine parent and the seven major metabolites (five chloro and two hydroxy) containing the triazine ring. The parent plus these seven metabolites account for 90% or more of the total radioactive residue in plants (J. Abbotts, 9/22/92).

The inclusion of the metabolites in the anticipated residue expression resulted in ARs being supplied for corn, cottonseed, sorghum, and wheat which were larger than the tolerance values listed for these commodities in the CFR. For this reason the tolerance and the anticipated residue for these commodities are not comparable, nor are the exposure and risk estimates which result from use of these residues in the DRES analysis. Tolerances required through reregistration are expected to reflect the parent and all major plant metabolites of cyanazine containing the triazine ring, instead of just the parent.

Percent of crop treated refinements used in the analysis were supplied by the Biological and Economic Analysis Division (BEAD) in an A. Jennings memo to D. Barolo dated 6/8/92 and a R. Torla memo to S. Schaible dated 10/29/92. Though 100% crop treated was assumed in the analysis for meat, milk, poultry, and eggs, the anticipated residues supplied by CBRS reflect percent of crop treated information for feed items. The anticipated residues supplied by CBRS reflect field trial data, processing studies, and/or metabolism data. A summary of the residue information used in this analysis is attached as Table 1.

Toxicological Endpoint

The DRES chronic exposure analysis compared dietary exposure from cyanazine to a Reference Dose (RfD) of 0.002 mg/kg body weight/day, based on a no observed effect level (NOEL) of 0.2 mg/kg bwt/day and an uncertainty factor of 100. The RfD was assumed for the analysis to be appropriate also for the metabolites of cyanazine which contain the triazine ring (personal communication with S. Dapson, 11/4/92). The NOEL is taken from a two year feeding study in rats which demonstrated decreased body weight gain in females and hyperactivity in males. This RfD has been approved by the HED/RfD Peer Review Committee (6/18/92), but has not yet been reviewed by the Agency RfD Work Group.

Cyanazine has been classified as a Group C_q (possible human) carcinogen by the OPP Carcinogenicity Peer Review Committee. Its upper bound carcinogenic potency factor (Q_1^*) was calculated to be 8.4×10^{-1} (mg/kg bwt/day)⁻¹ ("List of Chemicals Evaluated for Carcinogenic Potential", R. Engler, 9/3/92). In the absence of data indicating otherwise, this potency factor is assumed also to be appropriate for the metabolites of cyanazine containing the triazine ring (personal communication, K. Baetcke, 11/12/92).

Exposure Analysis

The DRES chronic exposure analysis used anticipated residues and percent crop treated information to estimate the Anticipated Residue Contribution (ARC) for the overall U.S. population and 22 population subgroups. These exposure estimates were then compared to the RfD for cyanazine to calculate the chronic risk from the evaluated uses. A summary of the ARCs and their representations as percentages of the RfD are attached as Table 2.

The ARC for the overall U.S. population from residues of cyanazine parent and seven metabolites containing the triazine ring is 0.000029 mg/kg bwt/day, which represents 1.5% of the RfD. None of the subgroups has an exposure which represents even 5% of the RfD and the exposure to the highest exposed subgroup, children aged one through six, is 0.000065 mg/kg bwt/day, or 3.2% of the RfD. Based on these risk estimates, it is safe to say that chronic (non-cancer) risk from cyanazine and its metabolites of interest is minimal.

Though not the main focus of this analysis and not comparable to the exposure estimates calculated in this analysis, the chronic dietary exposure from published tolerances of cyanazine parent on corn grain, sorghum, wheat grain, and cottonseed is 0.000172 mg/kg bwt/day, or 9% of the RfD. This exposure value was calculated assuming tolerance level residues and 100% crop treated for the abovementioned commodities, and does not include any exposure contributed by residues in animal commodities.

Carcinogenic Risk

The upper bound carcinogenic risk for cyanazine and its seven metabolites containing the triazine ring was calculated for the overall U.S. population using the following relationship:

$$\text{Upper bound carcinogenic risk} = \text{Dietary exposure (ARC)} \times Q_1^*$$

Based on a Q^* of 0.84 (mg/kg/day)⁻¹, the resulting upper bound carcinogenic risk was 2.5×10^{-5} . This risk reflects residues for both the food uses listed in the CFR and secondary residues found in meat, milk, poultry, and eggs. Carcinogenic risks broken out by commodity or commodity group are listed in the table on the following page.

Upper Bound Carcinogenic Risks from Cyanazine and Metabolites

<u>Commodity/Commodity Group</u>	<u>Cancer Risk</u>
Corn	1.0 E-5
Meat	8.5 E-6
Poultry and Eggs	2.6 E-6
Wheat	1.9 E-6
Milk	1.0 E-6
Sorghum	1.0 E-7
Cottonseed	7.8 E-8
Total	2.5 E-5

These upper bound carcinogenic risk estimates reflect refinements in both the residue and percent of crop treated information. Even with these refinements, the overall cancer risk from cyanazine and metabolites exceeds the level that the Agency usually considers negligible.

The largest contributor of risk is corn, both through the raw agricultural commodity itself and through secondary residues in meat, milk, poultry, and eggs resulting from use of corn as a feed item. Corn feed accounts for 99% of the residues of cyanazine and metabolites in beef cattle, 89% in dairy cattle, and 94% in poultry (personal communication, J. Abbotts, 11/12/92). Using these numbers as a basis for calculation, a cancer risk of 1.17×10^{-5} can be attributed to secondary residues from corn of cyanazine and metabolites in meat, milk, poultry, and eggs. The total risk from these commodities considering all possible feed items having a tolerance is 1.2×10^{-5} , so 97% of the overall risk from animal commodities can be attributed to corn. The use on corn either directly or indirectly accounts for 2.17×10^{-5} of the upper bound cancer risk from this chemical.

A list of the cancer risk contributed by each commodity in the analysis is attached as Table 3.

In addition to the upper bound cancer risk contributed through food uses of cyanazine, it is probably reasonable to assume that there is additional dietary risk contributed through the presence of cyanazine and its triazine containing metabolites in drinking water. Dietary exposure and cancer risk from drinking water will be addressed at a later date as part of the Special Review of triazines, but it should still be kept in mind that there is likely to be a possibly substantial additional cancer risk to that risk reported in this analysis for the overall U.S. population.

Attachments

cc: DRES M. Beringer (CCB)
CBRS Caswell # 188C
Tox I

TABLE 1

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 188C

DATE: 10/28/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS		% CROP TREATED	RES. VALUE USED IN TAS RUN (ppm)	STATUS
			ADJ UF	>>100 OPP R/D= 0.002000 EPA R/D= 0.002000	No data gaps.				
Cyanazine (B1adex) Caswell #188C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180.307	2yr feeding - rat NOEL= 0.2000 mg/kg LEL= 0.9900 mg/kg ONCO: C(q) (HED)	Decreased body weight gain in females; hyperactivity in males Positive onto in rats (mammary tumor)	Q*: 0.84000	Q* calculated					HED reassess 05/05/88. EPA verified 05/25/88. RfD/PR complete 03/12/92. EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.
FOOD CODE	FOOD	FOOD FORM	PET. #	TOLERANCE (ppm)	ANTICIPATED RESIDUE (ppm)	AR STATISTIC TYPE			
15005AA	CORN, SWEET	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.050000	0.120000			20.00	0.024000	
15005AA	CORN, SWEET	31 COOKED-FRESH OR CANNED	P 0.050000	0.120000			20.00	0.024000	
15005AA	CORN, GRAIN-ENDO	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.050000	0.120000			20.00	0.024000	
24002EA	CORN, GRAIN-ENDO	22 COOKED-FRESH-BAKED	P 0.050000	0.120000			20.00	0.024000	
24002EA	CORN, GRAIN-ENDO	23 COOKED-FRESH-BOILED	P 0.050000	0.120000			20.00	0.024000	
24002HA	CORN, GRAIN-ENDO	00 NOT SPECIFIED (NO CONSUMPTION)	P 0.050000	0.120000			20.00	0.024000	
24002HA	CORN SUGAR	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.050000	0.120000C			20.00	0.024000	
24002SA	CORN SUGAR	22 COOKED-FRESH-BAKED	P 0.050000	0.120000C			20.00	0.024000	
24002SA	SORGHUM	00 NOT SPECIFIED (NO CONSUMPTION)	P 0.050000	0.100000			5.00	0.005000	
24007AA	WHEAT-ROUGH	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.100000	0.160000			1.00	0.001600	
24007AA	WHEAT-ROUGH	22 COOKED-FRESH-BAKED	P 0.100000	0.160000			1.00	0.001600	
24007AA	WHEAT-ROUGH	23 COOKED-FRESH-BOILED	P 0.100000	0.160000			1.00	0.001600	
24007GA	WHEAT-GERM	10 RAW-FRESH OR NFS 22 COOKED-FRESH-BAKED	P 0.100000	0.160000			1.00	0.001600	
24007GA	WHEAT-BRAN	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.100000	0.160000			1.00	0.001600	
24007HA	WHEAT-BRAN	22 COOKED-FRESH-BAKED	P 0.100000	0.160000			1.00	0.001600	
24007HA	WHEAT-BRAN	22 COOKED-FRESH-FRIED	P 0.100000	0.160000			1.00	0.001600	
24007HA	WHEAT-BRAN	10 RAW-FRESH OR NFS 21 COOKED-NFS	P 0.100000	0.160000			1.00	0.001600	
24007WA	WHEAT-FLOUR	22 COOKED-FRESH-BAKED	P 0.100000	0.160000			1.00	0.001600	
24007WA	WHEAT-FLOUR	25 COOKED-FRESH-FRIED	P 0.100000	0.160000			1.00	0.001600	
24007WA	WHEAT-FLOUR	18 PROCESSED OIL	P 0.050000	0.120000			20.00	0.024000	
270020A	CORN, GRAIN-OIL	18 PROCESSED OIL	P 0.050000	0.090000			5.00	0.004500	
270030A	COTTONSEED-OIL	18 PROCESSED OIL	P 0.050000	0.090000			5.00	0.004500	
27003WA	COTTONSEED-MEAL	10 RAW-FRESH OR NFS	NO TOL	A 0.000034			100.00	0.000034	
500000B	MILK-NON-FAT SOL	21 COOKED-NFS	NO TOL	A 0.000034			100.00	0.000034	
500000B	MILK-NON-FAT SOL	51 COOKED-CANNED	NO TOL	A 0.000034			100.00	0.000034	
500000B	MILK-FAT SOLIDS	10 RAW-FRESH OR NFS	NO TOL	A 0.000280			100.00	0.000280	
500000A	MILK-FAT SOLIDS	21 COOKED-NFS	NO TOL	A 0.000280			100.00	0.000280	
500000A	MILK-FAT SOLIDS	51 COOKED-CANNED	NO TOL	A 0.000280			100.00	0.000280	
500000A	MILK SUG (LACT)	21 COOKED-NFS	NO TOL	A 0.000280			100.00	0.000280	
500000A	MILK SUG (LACT)	51 COOKED-CANNED	NO TOL	A 0.000280			100.00	0.000280	
53001BA	BEEF MEAT BYP	21 COOKED-NFS	NO TOL	A 0.010300			100.00	0.010300	
53001BA	BEEF MEAT BYP	26 COOKED-FRESH-PICKLED, CORNED, OR CURED	NO TOL	A 0.010300			100.00	0.010300	
53001BB	BEEF-OTH ORGAN	21 COOKED-NFS	NO TOL	A 0.010300			100.00	0.010300	
53001BB	BEEF-OTH ORGAN	51 COOKED-CANNED	NO TOL	A 0.010300			100.00	0.010300	

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 188C

DATE: 10/28/92

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CHEMICAL Food Code	Food	Food Form	STUDY TYPE	EFFECTS	DECREASED BODY WEIGHT GAIN IN FEMALES; HYPER- ACTIVITY IN MALES	REFERENCE DOSES ADI UF -->100 OPP Rfd= 0.002000 EPA Rfd= 0.002000	DATA GAPS/COMMENTS No data gaps.	STATUS	
								PET.#	ANTICIPATED RESIDUE (ppm)
Cyanazine (Bladex) Caswell #188C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180.307	2yr feeding- rat NOEL= 0.2000 mg/kg LEL= 5.00 ppm ONCO: C(q) (HED)				Positive once in rats (mammary tumor)	q*: 0.84000	q* calculated		
53001DA	BEEF-DRIED	21 COOKED-NFS			NO TOL	A 0.003450	0.003450		100.00
53001FA	BEEF-FAT	10 RAW-FRESH OR NFS			NO TOL	A 0.006900	0.006900		100.00
53001FA	BEEF-FAT	21 COOKED-NFS			NO TOL	A 0.006900	0.006900		100.00
53001FA	BEEF-FAT	22 COOKED-FRESH-BAKED			NO TOL	A 0.006900	0.006900		100.00
53001FA	BEEF-FAT	23 COOKED-FRESH-BOILED			NO TOL	A 0.006900	0.006900		100.00
53001FA	BEEF-FAT	24 COOKED-FRESH-BROILED			NO TOL	A 0.006900	0.006900		100.00
53001FA	BEEF-FAT	25 COOKED-FRESH-FRIED			NO TOL	A 0.006900	0.006900		100.00
53001KA	BEEF-KIDNEY	21 COOKED-NFS			NO TOL	A 0.004310	0.004310		100.00
53001LA	BEEF-LIVER	25 COOKED-FRESH-FRIED			NO TOL	A 0.003710	0.003710		100.00
53001LA	BEEF-LIVER	31 COOKED-FRESH OR CANNED			NO TOL	A 0.003710	0.003710		100.00
53001MA	BEEF-LEAN	10 RAW-FRESH OR NFS			NO TOL	A 0.003450	0.003450		100.00
53001MA	BEEF-LEAN	21 COOKED-NFS			NO TOL	A 0.003450	0.003450		100.00
53001MA	BEEF-LEAN	22 COOKED-FRESH-BAKED			NO TOL	A 0.003450	0.003450		100.00
53001MA	BEEF-LEAN	23 COOKED-FRESH-BOILED			NO TOL	A 0.003450	0.003450		100.00
53001MA	BEEF-LEAN	24 COOKED-FRESH-BROILED			NO TOL	A 0.003450	0.003450		100.00
53002BA	GOAT MEAT BYP	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.003450	0.003450		100.00
53002BB	GOAT-OTH ORGAN	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.003450	0.003450		100.00
53002FA	GOAT-FAT	23 COOKED-FRESH-BOILED			NO TOL	A 0.006900	0.006900		100.00
53002FA	GOAT-FAT	25 COOKED-FRESH-FRIED			NO TOL	A 0.006900	0.006900		100.00
53002KA	GOAT-KIDNEY	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.004310	0.004310		100.00
53002LA	GOAT-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.010300	0.010300		100.00
53002MA	GOAT-LEAN	23 COOKED-FRESH-BOILED			NO TOL	A 0.003450	0.003450		100.00
53002MA	GOAT-LEAN	25 COOKED-FRESH-FRIED			NO TOL	A 0.003450	0.003450		100.00
53003AA	HORSE	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.010300	0.010300		100.00
53003BA	SHEEP-MEAT BYP	21 COOKED-NFS			NO TOL	A 0.010300	0.010300		100.00
53005BB	SHEEP-OTH ORGAN	21 COOKED-NFS			NO TOL	A 0.006900	0.006900		100.00
53005FA	SHEEP-P-FAT	21 COOKED-NFS			NO TOL	A 0.006900	0.006900		100.00
53005KA	SHEEP-P-KIDNEY	21 COOKED-NFS			NO TOL	A 0.004310	0.004310		100.00
53005LA	SHEEP-P-LIVER	00 NOT SPECIFIED (NO CONSUMPTION)			NO TOL	A 0.003710	0.003710		100.00
53005MA	SHEEP-P-LEAN	21 COOKED-NFS			NO TOL	A 0.010300	0.010300		100.00
53005MA	SHEEP-P-LEAN	31 COOKED-FRESH OR CANNED			NO TOL	A 0.003450	0.003450		100.00
53006BA	PORK-MEAT BYP	21 COOKED-NFS			NO TOL	A 0.010300	0.010300		100.00
53006BB	PORK-OTH ORGAN	21 COOKED-NFS			NO TOL	A 0.010300	0.010300		100.00
53006BB	PORK-OTH ORGAN	26 COOKED-FRESH-PICKLED, CORNED, OR CURED			NO TOL	A 0.010300	0.010300		100.00
53006FA	PORK-FAT	10 RAW-FRESH OR NFS			NO TOL	A 0.006900	0.006900		100.00
53006FA	PORK-FAT	21 COOKED-NFS			NO TOL	A 0.006900	0.006900		100.00
53006FA	PORK-FAT	23 COOKED-FRESH-BOILED			NO TOL	A 0.006900	0.006900		100.00
53006FA	PORK-FAT	25 COOKED-FRESH-FRIED			NO TOL	A 0.006900	0.006900		100.00
53006FA	PORK-FAT	26 COOKED-FRESH-PICKLED, CORNED, OR CURED			NO TOL	A 0.006900	0.006900		100.00
53006KA	PORK-KIDNEY	21 COOKED-NFS			NO TOL	A 0.004310	0.004310		100.00

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 188C

DATE: 10/28/92

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CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES		DATA GAPS/COMMENTS	STATUS
			AD ₁	UF -->100 OPP RfD= 0.002000 EPA RfD= 0.002000		
Cyanazine (Bladex) Caswell #188C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180.307	2yr feeding- rat NOEL= 0.2000 mg/kg LEL= 5.00 ppm ONCO: C(q) (HED)	Decreased body weight gain in females; hyper- activity in males Positive onco in rats (mammary tumor)	A01 OPP RfD= 0.002000 EPA RfD= 0.002000	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88. RfD/PR complete 03/12/92. EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.	
			Q*: 0.84000	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)
53006LA	PORK-LIVER	21 COOKED-NFS	NO TOL	A 0.003710	0.003710		100.00	0.003710
53006LA	PORK-LIVER	25 COOKED-FRESH-FRIED	NO TOL	A 0.003710	0.003710		100.00	0.003710
53006MA	PORK-LEAN	21 COOKED-NFS	NO TOL	A 0.003450	0.003450		100.00	0.003450
53006MA	PORK-LEAN	25 COOKED-FRESH-FRIED	NO TOL	A 0.003450	0.003450		100.00	0.003450
53006MA	PORK-LEAN	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	NO TOL	A 0.003450	0.003450		100.00	0.003450
55008BA	TURKEY-BYP	21 COOKED-NFS	NO TOL	A 0.004320	0.004320		100.00	0.004320
55008BA	TURKEY-BYP	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	NO TOL	A 0.004320	0.004320		100.00	0.004320
55008BLA	TURKEY ORGAN	21 COOKED-NFS	NO TOL	A 0.004320	0.004320		100.00	0.004320
55008BLA	TURKEY ORGAN	25 COOKED-FRESH-FRIED	NO TOL	A 0.004320	0.004320		100.00	0.004320
55008MA	TURKEY W/O SKIN	21 COOKED-NFS	NO TOL	A 0.003980	0.003980		100.00	0.003980
55008MA	TURKEY W/O SKIN	31 COOKED-FRESH OR CANNED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55008MA	TURKEY W/O SKIN	62 COOKED-FRESH OR FROZEN-BAKED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55008MB	TURKEY+SKIN	21 COOKED-NFS	NO TOL	A 0.002320	0.002320		100.00	0.002320
55008MB	TURKEY+SKIN	25 COOKED-FRESH-FRIED	NO TOL	A 0.002320	0.002320		100.00	0.002320
55008MC	TURKEY-UNSPEC	21 COOKED-NFS	NO TOL	A 0.004320	0.004320		100.00	0.004320
55013BA	POULTRY,OTH-BYP	00 NOT SPECIFIED (NO CONSUMPTION)	NO TOL	A 0.004320	0.004320		100.00	0.004320
55013LA	POULTRY,ORGAN	25 COOKED-FRESH-FRIED	NO TOL	A 0.004320	0.004320		100.00	0.004320
55013MA	POULTRY,OTHER	21 COOKED-NFS	NO TOL	A 0.003980	0.003980		100.00	0.003980
55014AA	EGGS-WHOLE	10 RAW-FRESH OR NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AA	EGGS-WHOLE	21 COOKED-NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AA	EGGS-WHOLE	22 COOKED-FRESH-BAKED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AA	EGGS-WHOLE	23 COOKED-FRESH-BOILED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55014AA	EGGS-WHOLE	25 COOKED-FRESH-FRIED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AB	EGGS-WHITE ONLY	10 RAW-FRESH OR NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AB	EGGS-WHITE ONLY	21 COOKED-NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AB	EGGS-WHITE ONLY	22 COOKED-FRESH-BAKED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AB	EGGS-WHITE ONLY	62 COOKED-FRESH OR FROZEN-BAKED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AB	EGGS-WHITE ONLY	81 COOKED-FROZEN	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AC	EGGS-YOLK ONLY	10 RAW-FRESH OR NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AC	EGGS-YOLK ONLY	21 COOKED-NFS	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AC	EGGS-YOLK ONLY	25 COOKED-FRESH-FRIED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55014AC	EGGS-YOLK ONLY	31 COOKED-FRESH OR CANNED	NO TOL	A 0.002980	0.002980		100.00	0.002980
55015BA	CHICKEN-BYP	00 NOT SPECIFIED (NO CONSUMPTION)	NO TOL	A 0.004320	0.004320		100.00	0.004320
55015LA	CHICKEN-ORGAN	21 COOKED-NFS	NO TOL	A 0.004320	0.004320		100.00	0.004320
55015LA	CHICKEN-ORGAN	25 COOKED-FRESH-FRIED	NO TOL	A 0.004320	0.004320		100.00	0.004320
55015LA	CHICKEN-W/O SKIN	26 COOKED-FRESH-PICKLED,CORNED,OR CURED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55015MA	CHICKEN-W/O SKIN	21 COOKED-NFS	NO TOL	A 0.003980	0.003980		100.00	0.003980
55015MA	CHICKEN-W/O SKIN	22 COOKED-FRESH-BAKED	NO TOL	A 0.004320	0.004320		100.00	0.004320
55015MA	CHICKEN-W/O SKIN	25 COOKED-FRESH-FRIED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55015MA	CHICKEN-W/O SKIN	31 COOKED-FRESH OR CANNED	NO TOL	A 0.003980	0.003980		100.00	0.003980

ANTICIPATED RESIDUE INFORMATION FOR CASWELL NUMBER 188C

DATE: 10/28/92

PAGE: 4

CHEMICAL	STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Cyanazine (Bladex) Caswell #188C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180.307 ONCO: C(q) (HED)	2yr feeding- rat NOEL = 0.2000 mg/kg 5.00 ppm LEL = 0.9900 mg/kg 25.00 ppm	Decreased body weight gain in females; hyper- activity in males Positive onco in rats (mammary tumor)	AD1 UF -->100 OPP Rfd= 0.0002000 EPA Rfd= 0.0002000 Q*: 0.84000 Q*: calculated	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88. Rfd/PR complete 03/12/92. EPA verified 05/27/92. Rfd/PR complete 06/18/92. 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)
55015MA	CHICKEN-W/O SKIN	53 COOKED-CANNED-BOILED	NO TOL	A 0.003980	0.003980		100.00	0.003980
55015MB	CHICKEN+SKIN	21 COOKED-NFS	NO TOL	A 0.002320	0.002320		100.00	0.002320
55015MB	CHICKEN+SKIN	25 COOKED-FRESH-FRIED	NO TOL	A 0.002320	0.002320		100.00	0.002320

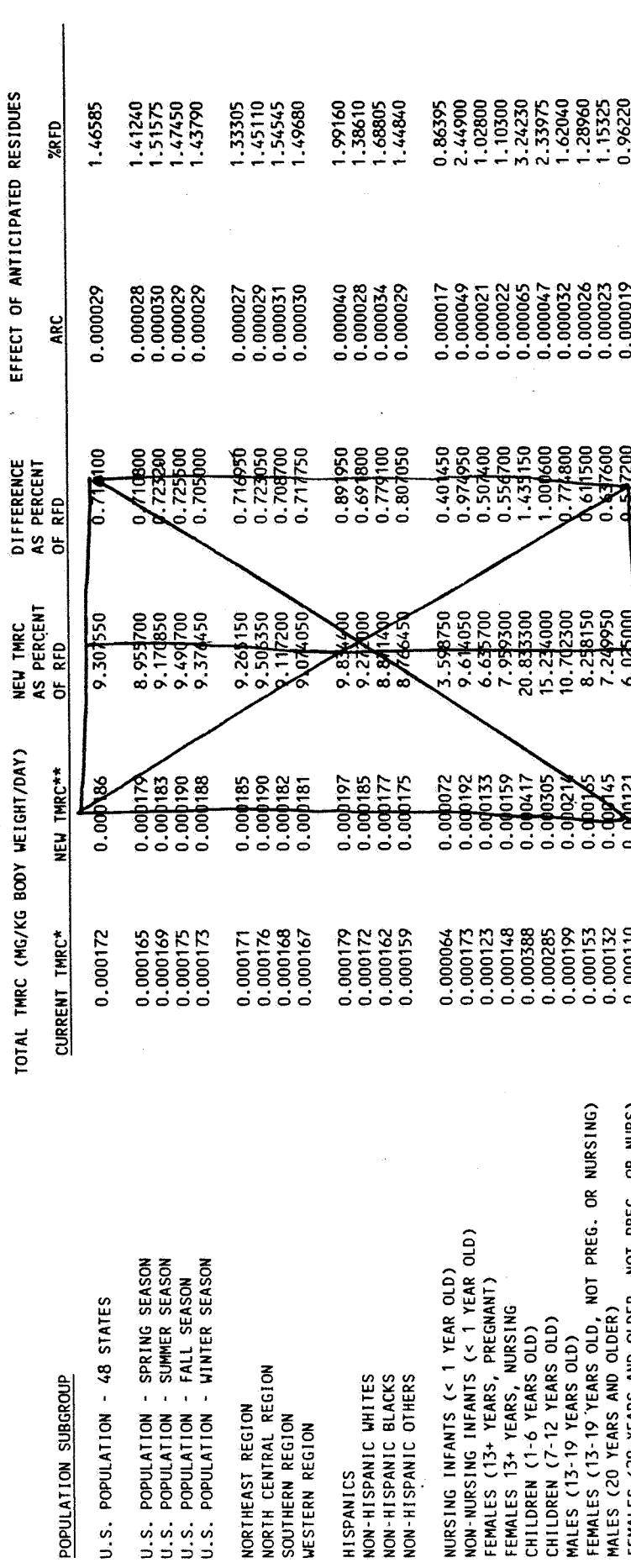
TABLE 2

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 10/28/92

PAGE: 1

CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Cyanazine (Bladex)	2yr feeding- rat	Decreased body weight gain in females; hyperactivity in males	ADI UF >>100 OPP RfD= 0.002000 EPA RfD= 0.002000	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88. RfD/P complete 03/12/92. EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.	
Caswell #188C	NOEL= 0.2000 mg/kg					
CAS No. 21725-46-2	5.00 ppm					
A.I. CODE: 100101	LEL= 0.9900 mg/kg					
CFR No. 180.307	25.00 ppm					
ONCO: C(q) (HED)	Q*: 0.84000	Positive onco in rats (mammary tumor)	Q* calculated			



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

TOLERANCE ASSESSMENT SUMMARY FOR Cyanazine (Bladex)
USING ANTICIPATED RESIDUES
CASWELL #188C

DATE: 10/28/92

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

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000015 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 0.750 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE
CURRENT NEW PETITION HAVE AN ARC OF: 0.000014 MG/KG/DAY
THIS ARC WILL OCCUPY 0.716 % OF THE ADI.

IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE
CURRENT NEW PETITION) ARE GRANTED
THE RESULTANT ARC WILL BE: 0.000029 MG/KG/DAY
THE TOTAL ARC WILL OCCUPY 1.466 % OF THE ADI.

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

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000029 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 1.474 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE
CURRENT NEW PETITION HAVE AN ARC OF: 0.000019 MG/KG/DAY
THIS ARC WILL OCCUPY 0.975 % OF THE ADI.

IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE
CURRENT NEW PETITION) ARE GRANTED
THE RESULTANT ARC WILL BE: 0.000049 MG/KG/DAY
THE TOTAL ARC WILL OCCUPY 2.449 % OF THE ADI.

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

EXISTING ANTICIPATED RESIDUES (PUBLISHED ONLY)
RESULT IN AN ARC OF: 0.000036 MG/KG/DAY
THE EXISTING ARC IS EQUIVALENT TO: 1.807 % OF THE ADI.

NO NEW ANTICIPATED RESIDUES ARE IN THE FILE.

OTHER PENDING ANTICIPATED RESIDUES EXCLUDING THE
CURRENT NEW PETITION HAVE AN ARC OF: 0.000029 MG/KG/DAY
THIS ARC WILL OCCUPY 1.435 % OF THE ADI.

IF ALL PENDING ANTICIPATED RESIDUES (INCLUDING THE
CURRENT NEW PETITION) ARE GRANTED
THE RESULTANT ARC WILL BE: 0.000065 MG/KG/DAY
THE TOTAL ARC WILL OCCUPY 3.242 % OF THE ADI.

TABLE III

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 10/28/92

PAGE: 1

CHEMICAL INFORMATION		STUDY TYPE				EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS	STATUS
Cyanazine (Bladex) Cashwell #188C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180..307		2yr feeding- rat NOEL=	0.200 mg/kg 5.00 ppm	Decreased body weight gain in females; hyper- activity in males	ADI OPP RfD= 0.002000 EPA RfD= 0.002000	UF ->100	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88. RfD/Pr complete 03/12/92. EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.	
		LEL=	0.990 mg/kg 25.00 ppm	Positive onco in rats (mammary tumor)	q*: 0.84000	q*: calculated			

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES										ARC ONCO RISK	
FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	TYPE	TMRC (UG/KG/DAY)	%RFD	TMRC ONCO RISK	ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)	%RFD		
270030A	COTTONSEED-OIL 18 PROCESSED OIL	0.050	P	0.001020	0.051	0.00000085680	0.00450	0.000092	0.005	0.00000007728	
27003WA	COTTONSEED-MEAL 18 PROCESSED OIL	0.050	P	0.000006	0.000	0.00000000504	0.00450	0.000001	0.000	0.00000000084	
CROP GROUP TOTALS FOR UNSPECIFIED:		0.001026		0.051	0.00000086184		0.000093		0.005	0.00000007812	
15005AA	CORN, SWEET 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.050	P	0.011835	0.592	0.00000994140	0.02400	0.000002	0.000	0.0000000168	
24002EA	CORN, GRAIN-ENDOSPERM 31 COOKED-FRESH OR CANNED 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.050	P	0.008270	0.414	0.00000694680	0.02400	0.000895	0.239	0.00000401772	
24002HA	CORN, GRAIN-BRAN 00 NOT SPECIFIED (NO CONSUMPTION) 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.050	P	0.000000	0.000	0.00000000000	0.02400	0.000523	0.045	0.000000075180	
24002SA	CORN SUGAR 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.050	P	0.007287	0.364	0.00000612108	0.02400	0.00091	0.005	0.0000007644	
24006AA	SORGHUM (INCLUDING MILO) 00 NOT SPECIFIED (NO CONSUMPTION) 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.050	P	0.001188	0.059	0.00000099792	0.02400	0.002022	0.101	0.00000169848	
24007AA	WHEAT-ROUGH 10 RAW-FRESH OR NFS 21 COOKED-NFS	0.100	P	0.014061	0.703	0.00001181124	0.02400	0.000219	0.011	0.000000183956	
24007GA	WHEAT-GERM 10 RAW-FRESH OR NFS 22 COOKED-FRESH-BAKED	0.100	P	0.000081	0.004	0.0000006894	0.00160	0.000000	0.000	0.00000000000	
24007HA	WHEAT-BRAN 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED	0.100	P	0.001216	0.061	0.00000102144	0.00160	0.000000	0.000	0.00000000000	
24007WA	WHEAT FLOUR 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 25 COOKED-FRESH-FRIED	0.100	P	0.125725	6.286	0.00010560900	0.00160	0.000001	0.000	0.0000000084	

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

DATE: 10/28/92

PAGE: 2

CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS		STATUS
CAS No.	NAME	2yr feeding- rat NOEL=	Decreased body weight gain in females; hyper- activity in males	AD1 OPP Rfd= 0.002000 EPA Rfd= 0.002000	-->100 No data gaps.		HED reassess 05/05/88. EPA verified 05/25/88. RfD/PR complete 03/12/92. EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.
A.I. CODE:	CFR No.	LEL=	Positive onco in rats (mammary tumor)	Q*: 0.8400	Q* calculated		
COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES							
FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	TYPE (UG/KG/DAY)	%RFD	TMRC ONCO RISK'	ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)
270020A	CORN, GRAIN-OIL 18 PROCESSED OIL	0.050 P	0.001140	0.057	0.00000095760	0.02400	0.000547
CROP GROUP TOTALS FOR CEREAL GRAINS:							
53001BA	BEEF-MEAT BYPRODUCTS 21 COOKED-NFS 26 COOKED-FRESH-PICKLED, CORNED, OR CURED	0.010 A	0.000182	0.009	0.00000015288	0.01030 0.01030	0.000169 0.00013
53001BB	BEEF(ORGAN MEATS)-OTHER 21 COOKED-NFS 51 COOKED-CANNED	0.010 A	0.000062	0.003	0.00000005208	0.01030 0.01030	0.000053 0.00009
53001DA	BEEF-DRIED	0.003 A	0.000009	0.000	0.00000000756	0.00345	0.000009
53001FA	BEEF(BONELESS)-FAT (BEEF TALLOW) 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 23 COOKED-FRESH-BOILED 24 COOKED-FRESH-BROILED 25 COOKED-FRESH-FRIED	0.006 A	0.002567	0.128	0.00000215628	0.00690 0.00690 0.00690 0.00690 0.00690	0.00010 0.001023 0.00172 0.00230 0.00149
53001KA	BEEF(ORGAN MEATS)-KIDNEY 21 COOKED-NFS	0.004 A	0.000002	0.000	0.00000000168	0.00431	0.000002
53001LA	BEEF(ORGAN MEATS)-LIVER 25 COOKED-FRESH-FRIED 31 COOKED-FRESH OR CANNED	0.003 A	0.000077	0.004	0.0000006468	0.00371 0.00371	0.00076 0.00001
53001MA	BEEF(BONELESS)-LEAN (W/O REMOVEABLE FAT) 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 23 COOKED-FRESH-BOTTLED 24 COOKED-FRESH-BROILED	0.003 A	0.004009	0.200	0.00000336756	0.00345 0.00345 0.00345 0.00345	0.00000 0.002388 0.00164 0.012
53002BA	GOAT-MEAT BYPRODUCTS 00 NOT SPECIFIED (NO CONSUMPTION)	0.010 A	0.000000	0.000	0.00000000000	0.01030	0.000000
53002BB	GOAT(ORGAN MEATS)-OTHER 00 NOT SPECIFIED (NO CONSUMPTION)	0.010 A	0.000000	0.000	0.00000000000	0.01030	0.000000
53002FA	GOAT(BONELESS)-FAT 23 COOKED-FRESH-BAKED 25 COOKED-FRESH-FRIED	0.006 A	0.000000	0.000	0.00000000000	0.00690 0.00690	0.000000 0.000000
53002KA	GOAT(ORGAN MEATS)-KIDNEY 00 NOT SPECIFIED (NO CONSUMPTION)	0.004 A	0.000000	0.000	0.00000000000	0.00431	0.000000
53002LA	GOAT(ORGAN MEATS)-LIVER 00 NOT SPECIFIED (NO CONSUMPTION)	0.003 A	0.000000	0.000	0.00000000000	0.00371	0.000000

TOLERANCE ASSESSMENT SYSTEM ROUTINE CHRONIC ANALYSIS

CHEMICAL INFORMATION		STUDY TYPE		EFFECTS	REFERENCE DOSES	DATA GAPS / COMMENTS		STATUS
Cyanazine (Bladex)	Caswell #188C	2yr feeding rat NOEL =	0.2000 mg/kg 5.00 ppm	Decreased body weight gain in females; hyperactivity in males	ADI UF -->100 OPP RfD= 0.002000 EPA RfD= 0.002000	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88.	
CAS No. 21725-46-2	A.I. CODE: 100101	LEL =	0.9900 mg/kg 25.00 ppm	Positive onco in rats (mammary tumor)			RTD/PR complete 03/12/92.	
CFR No. 180.307		ONCO; C(q) (HED)			q*: 0.84000	q* calculated	EPA verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.	

COMMONWEALTH CONTRIBUTION BY RAC FOR U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)		TMRC		ONCO RISK	ARC (US/KG/DAY)	%RED	ONCO RISK
		%RFD	TYPE (UG/KG/DAY)	%RFD	TYPE (UG/KG/DAY)				
53002MA	GOAT(BONELESS)-LEAN (W/O REMOVEABLE FAT)	0.003	A	0.000001	0.000	0.00000000084	0.00345	0.000001	0.000
	23 COOKED - FRESH - BOILED					0.00345	0.00000	0.000	0.000000000
	25 COOKED - FRESH - FRIED					0.00000	0.00000	0.000	0.000000000
53003AA	HORSE 00 NOT SPECIFIED (NO CONSUMPTION)	0.010	A	0.000000	0.000	0.00000000000	0.01030	0.000000	0.000
53005BA	SHEEP-MEAT BYPRODUCTS	0.010	A	0.000001	0.000	0.00000000084	0.01030	0.000001	0.000
53005BB	SHEEP(ORGAN MEATS)-OTHER	0.010	A	0.000000	0.000	0.00000000000	0.01030	0.000000	0.000
53005FA	SHEEP(BONELESS)-FAT	0.006	A	0.000030	0.002	0.00000002520	0.00690	0.000030	0.002
53005KA	SHEEP(ORGAN MEATS)-KIDNEY	0.004	A	0.000000	0.000	0.00000000000	0.00431	0.000000	0.000
53005LA	SHEEP(ORGAN MEATS)-LIVER	0.003	A	0.000000	0.000	0.00000000000	0.00371	0.000000	0.000
53005MA	SHEEP(BONELESS)-LEAN (W/O REMOVEABLE FAT)	0.003	A	0.000043	0.002	0.00000003612	0.00345	0.000040	0.002
	21 COOKED - NFS					0.00345	0.000003	0.000	0.00000000216
	31 COOKED - FRESH OR CANNED					0.000258	0.013	0.0000021672	
53006BA	PORK-MEAT BYPRODUCTS	0.010	A	0.000258	0.013	0.000000021672	0.01030	0.000258	0.013
53006BB	PORK(ORGAN MEATS)-OTHER	0.010	A	0.000040	0.002	0.00000003360	0.01030	0.000037	0.002
53006FA	PORK(BONELESS)-FAT (INCLUDING LARD)	0.006	A	0.001437	0.072	0.00000120708	0.00690	0.000012	0.001
	10 RAW - FRESH OR NFS					0.00690	0.000671	0.034	0.000000563
	21 COOKED - NFS					0.00690	0.000158	0.008	0.000000132
	23 COOKED - FRESH - BOILED					0.00690	0.000168	0.008	0.000000141
	25 COOKED - FRESH - FRIED					0.00690	0.000627	0.021	0.000000356
53006KA	PORK(ORGAN MEATS)-KIDNEY	0.004	A	0.000000	0.000	0.00000000000	0.00431	0.000000	0.000
53006LA	PORK(ORGAN MEATS)-LIVER	0.003	A	0.000018	0.001	0.00000001512	0.00371	0.000016	0.001
	21 COOKED - NFS					0.00371	0.000002	0.000	0.000000012
	25 COOKED - FRESH - FRIED					0.00345	0.000626	0.031	0.000000522
	21 COOKED - NFS					0.00345	0.000165	0.008	0.000000132
	25 COOKED - FRESH - FRIED					0.00345	0.000559	0.028	0.000000465
	26 COOKED - FRESH - PICKLED, CORNED, OR CURED					0.00000000000	0.000000	0.000	0.00000084665
CROP GROUP TOTALS FOR RED MEAT:									
		0.010086		0.504	0.00000847224		0.010083	0.504	0.00000084665

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CHEMICAL INFORMATION		STUDY TYPE		EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS		STATUS
Cyanazine (Bladex)	Caswell #188C	2yr feeding- rat NOEL=	0.2000 mg/kg 5.000 ppm	Decreased body weight gain in females; hyper- activity in males	AD1 UF -->100 OPP RfD= 0.002000 EPA RfD= 0.002000	No data gaps.	HED reassess 05/05/88. EPA verified 05/25/88.	
CAS No. 21725-46-2	A.I. CODE: 100101	LEL =	0.9900 mg/kg 25.00 ppm	Positive onco in rats (mammary tumor)	RfD/PR complete 03/12/92. EPA verified 05/27/92.			
CFR No. 180.307	ONCO: C(a) (HED)			q*: 0.84000	q* calculated		RfD/PR complete 06/18/92. On IRIS.	

COMMUNITY CONTRIBUTION BY DAS FOR: HSC DODH AATION - 18 STATES

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CHEMICAL INFORMATION		STUDY TYPE	EFFECTS	REFERENCE DOSES	DATA GAPS/COMMENTS		STATUS
Cyanazine (Bladex) Caswell #88C CAS No. 21725-46-2 A.I. CODE: 100101 CFR No. 180.307	2yrf feeding- rat NOEL = 0.2000 mg/kg 5.00 ppm LEL = 0.9900 mg/kg 25.00 ppm ONCO: C(q) (HED)	Decreased body weight gain in females; hyper- activity in males Positive onco in rats (mammary tumor.)	ADI UF -->100 OPP Rfd= 0.002000 EPA Rfd= 0.002000 Q*: 0.84000 Q* calculated	TMRC ONCO RISK'	No data gaps.	HED reassess 05/05/88. EPA Verified 05/25/88. RfD/PR complete 03/12/92. EPA Verified 05/27/92. RfD/PR complete 06/18/92. On IRIS.	

COMMODITY CONTRIBUTION BY RAC FOR: U.S. POPULATION - 48 STATES

FOOD CODE	FOODNAME/FOODFORM	TOLERANCE (PPM)	TMRC TYPE (UG/KG/DAY)	%RFD	TMRC	ONCO RISK'	ANTICIPATED RESIDUE (PPM)	ARC (UG/KG/DAY)	%RFD	ARC	ONCO RISK
50000DB	MILK-NON-FAT SOLIDS 10 RAW-FRESH OR NFS 21 COOKED-NFS 51 COOKED-CANNED	0.000 A	0.000242	0.012	0.00000020328		0.00003	0.000194	0.010	0.00000016296	
50000FA	MILK-FAT SOLIDS 10 RAW-FRESH OR NFS 21 COOKED-NFS 51 COOKED-CANNED	0.000 A	0.000947	0.047	0.00000079548		0.00028	0.000746	0.037	0.00000062664	
50000SA	MILK SUGAR (LACTOSE) 21 COOKED-NFS 51 COOKED-CANNED	0.000 A	0.000010	0.001	0.00000008840		0.00028	0.000199	0.010	0.00000016716	
55014AA	EGGS WHOLE 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 23 COOKED-FRESH-BOILED 25 COOKED-FRESH-FRIED	0.002 A	0.001682	0.084	0.00000141288		0.00028	0.000000	0.000	0.00000000000	
55014AB	EGGS-WHITE ONLY 10 RAW-FRESH OR NFS 21 COOKED-NFS 22 COOKED-FRESH-BAKED 62 COOKED-FRESH OR FROZEN-BAKED	0.002 A	0.000027	0.001	0.00000022268		0.00298	0.000013	0.001	0.0000001092	
55014AC	EGGS-YOLK ONLY 10 RAW-FRESH OR NFS 21 COOKED-NFS 25 COOKED-FRESH-FRIED 31 COOKED-FRESH OR CANNED	0.002 A	0.000020	0.001	0.0000001680		0.00298	0.000030	0.047	0.00000078120	
CROP GROUP TOTALS FOR DAIRY PRODUCTS:											
GRAND TOTALS FOR U.S. POPULATION - 48 STATES											
		0.186151	9.308	0.00015636684		0.029317	1.466	0.00002462628			

TOLERANCE TYPE: N=NEW; A=PENDING; P=PUBLISHED
 TMRC=THEORETICAL MAXIMUM RESIDUE CONTRIBUTION
 ARC = ANTICIPATED RESIDUE CONTRIBUTION
 RFD = REFERENCE DOSE