

Experiment Number
2190.01

DIET PREPARATION
FINAL REPORT

Prepared by:

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Base Diet

The base diet used for this experiment was 5K96, Verified Casein 10 IF Irradiated Rodent Diet, manufactured by Purina Mills International (PMI), P.O. Box 66812, St. Louis, MO 63166, see page 6 for the diet description and details. The 5K96 diet was received by ground shipment and immediately transferred to the Building 5 receiving dock for proper storage, see SOP 203.12, page 43 and 44. Prior to feeding the 5K96 diet, a full analysis was performed by an independent contractor on every lot received. In addition to the full analysis, a sample of each lot of 5K96 was obtained and transferred to the DBT Chemistry Support Program where a xenoestrogen analysis was performed, as well as a BPA background check., see pages 7 and 8 for results and refer to the DBT Chemistry Support Program's summary report for additional details and the Diet Preparation raw data for the full analysis reports.

The 5K96 diet was stored at 10°- 21°C in Diet Preparation's 5D-112 walk-in cooler. The environmental temperature / humidity storage conditions were monitored by the Environment Monitoring Control Systems Unit (EMCS).

Microbiological Surveillance

Microbiological evaluation was done to insure irradiation sterility was achieved. Samples of the 5K96 diet were taken for routine analyses in accordance with Diet Preparation SOP# 1006, pages 50 and 51. Samples were acceptable for animal study use by meeting NCTR's specifications of zero bacteria colony forming units per gram of feed tested and zero mold colony forming units per gram of feed tested. Refer to the Microbiology Surveillance/Diagnostic summary report for results and a detailed description and page 9 and 10. 5K96 diet feed samples not meeting the required specifications were resampled. If the resample did not meet the required specifications, the 5K96 diet was deemed unacceptable and not used.

Test and Control Article Receipt

Bisphenol A (BPA), carboxymethyl cellulose (CMC), and ethinyl estradiol (EE₂), were used for Experiment 2190. The BPA was received by the Regulatory Compliance and Risk Management on 06/29/12 from NIEHS / Battelle Memorial Institute in one lot number, 6052012 and transferred to the Diet Preparation work group. The CMC was received by the Regulatory Compliance and Risk Management on 06/22/12 from SIGMA-ALDRICH, Inc. 3050 Spruce Street, St. Louis, MO 63103 with one lot number, 041M0105V and transferred to Diet Preparation work group. The EE₂ was received and transferred to the DBT Chemistry Support Program. See their raw data for additional information.

The bulk BPA powder was stored by the Diet Preparation work group in 5 large, white, plastic screw top buckets (original containers). The BPA was also transferred to the Diet Preparation work group as a certified stock solution, prepared by the DBT Chemistry Support Program staff.

The bulk CMC powder was stored by the Diet Preparation work group in fourteen, white, plastic screw top buckets. All were stored in the Diet Preparation work group's area, building 5D-160.

The bulk EE₂ powder was stored in the DBT Chemistry Support Program's lab and transferred to Diet Preparation work group as a certified stock solution. Refer to the DBT Chemistry Support Program's report for additional storage and receipt details.

Transfer of Custody records of the BPA and EE₂ test articles are located in the Diet Preparation work group's Experiment 2190 raw data folders.

Storage Conditions

The bulk BPA and carboxymethyl cellulose were stored at room temperature in the Diet Preparation work group's lab, building 5D-163. The BPA and EE₂ stock solutions were stored at the DBT Chemistry Support Program lab. Once transferred to the Diet Preparation work group's area, they were stored at room temperature, the BPA stock solution was stored in building 5D-163 and the EE₂ stock solution was stored in building 5D-162 to prevent any cross contamination issues. The environmental temperature/humidity storage conditions were monitored by the Environment Monitoring Control Systems Unit (EMCS). Refer to the DBT Chemistry Support Program's report for further storage details.

Stability

Stability was established for the 2.5 µg/kg and 25,000 µg/kg BPA and 0.5 µg/kg EE₂ dose levels. All doses were considered stable up to 50 days at room temperature. A detailed description is provided in the DBT Chemistry Support Program Summary Report and the Diet Preparation work group's report on pages 11 and 12.

Homogeneity

Homogeneity was performed at the lowest EE₂ dose level, 0.05 ug/kg, also a 40L test batch of the 25 µg/kg level was certified as homogeneous, for a more detailed description in the DBT Chemistry Support Program's summary report and the Diet Preparation work group's raw data.

Preparation

Mixing occurred on an as needed basis but allowing enough time for the DBT Chemistry Support Program to obtain dose certification before being shipped to the animal rooms for dosing. Refer to SOP 683 on pages 45 - 49 for a more detailed description of vehicle and test article mixing procedures.

Custody of the formulation doses were maintained by the Diet Preparation and Animal Care work groups by the use of delivery records.

Dose Certification and Specifications

Sampling occurred approximately every two months for all dose levels. Samples were submitted to the DBT Chemistry Support Program for dose certification. The samples were identified by using a NCTR generated “Sample Collection Report” with a specific experiment related number, see SOP 1312, page 52. Detailed information regarding the analysis results is provided in the DBT Chemistry Support Program’s Summary Report.

The specifications for all dose groups were $\pm 10\%$ of the target dose and CV of 10% or less. All doses within certification were delivered to the Animal Care facility once the official results were provided to the Diet Preparation work group by the DBT Chemistry Support Program.

Raw Data

All raw data for the Diet Preparation of 2190 will be submitted to the study director for archival.

5K96 Irradiated Base Diet Manufacture Description

**Advanced Protocol®
Verified Casein Diet 10 IF**

5K96*

DESCRIPTION

Advanced Protocol® Verified Casein Diet 10 IF is a natural ingredient diet, formulated to be used in experimental protocols where dietary estrogenic activity is a concern. Recommended for rats, mice and hamsters, it meets the nutrient specifications as shown for NIH-31 in the 1996 update. NIH-31 is usually autoclaved, however 5K96 had some adjustments made to the vitamin content in order to compensate for the different levels in vitamin destruction when comparing irradiation and autoclaving.

Features and Benefits

- 5K96 consistently analyzes at less than 10.0 ppm total isoflavones (aglycone equivalents of genistein, daidzein and glycitein), while other natural ingredient laboratory rodent diets contain higher levels.
- Complete life-cycle diet designed to be fed free-choice.
- Available in irradiated or non-irradiated.

Product Forms Available

- Round pellets, 1 1/2" round x 3/4" long
- Meal (ground pellets)

Catalog #

55909
1810461

GUARANTEED ANALYSIS

Crude protein not less than19.0%
Crude fat not less than4.0%
Crude fiber not more than5.0%

INGREDIENTS

Ground wheat, ground corn, wheat middlings, ground oats, fish meal, casein, corn gluten meal, dicalcium phosphate, monocalcium phosphate, soybean oil, brewers dried yeast, calcium carbonate, salt, choline chloride, magnesium oxide, chromium potassium sulfate, dl-alpha tocopheryl acetate (vitamin E), manganese oxide, nicotinic acid, vitamin A acetate, calcium pantothenate, thiamin mononitrate, menadione sodium bisulfite (vitamin K), pyridoxine hydrochloride, riboflavin, cholecalciferol (vitamin D₃), cyanocobalamin (vitamin B₁₂), folic acid, biotin, zinc oxide, ferrous carbonate, copper sulfate, zinc sulfate, calcium iodate, cobalt carbonate.

FEEDING DIRECTIONS

Feed ad libitum to rodents. Plenty of fresh, clean water should be available at all times.

Verified lots have password protected isoflavone levels posted at www.labdiet.com. Contact info@labdiet.com for further information.

CHEMICAL COMPOSITION¹

Nutrients²

Protein, %	19.0
Arginine, %	0.93
Cystine, %	0.23
Glycine, %	0.82
Histidine, %	0.45
Isoleucine, %	0.91
Leucine, %	1.70
Lysine, %	0.99
Methionine, %	0.45
Phenylalanine, %	0.90
Tyrosine, %	0.60
Threonine, %	0.71
Tryptophan, %	0.22
Valine, %	1.04
Serine, %	0.94
Aspartic Acid, %	1.60
Glutamic Acid, %	4.61
Alanine, %	1.14
Proline, %	1.71
Taurine, %	0.03
Fat (ether extract), %	4.3
Fat (acid hydrolysis), %	5.3
Cholesterol, ppm	243
Linoleic Acid, %	2.00
Linolenic Acid, %	0.17
Arachidonic Acid, %	0.01
Omega-3 Fatty Acids, %	0.26
Total Saturated Fatty Acids, %	0.99
Total Monounsaturated Fatty Acids, %	1.09
Fiber (Crude), %	3.5
Neutral Detergent Fiber ³ , %	14.3
Acid Detergent Fiber ⁴ , %	4.7
Nitrogen-Free Extract (by difference), %	57.3
Starch, %	44.0
Glucose, %	0.15
Fructose, %	0.15
Sucrose, %	0.36
Lactose, %	0.00
Total Digestible Nutrients, %	75.8
Gross Energy, kcal/grm	4.06
Physiological Fuel Value⁵, kcal/grm	3.44
Metabolizable Energy, kcal/grm	3.15
Minerals	
Ash, %	5.7
Calcium, %	1.15
Phosphorus, %	0.89
Phosphorus (non-phytate), %	0.68
Potassium, %	0.43
Magnesium, %	0.19

Sulfur, %	0.17
Sodium, %	0.28
Chlorine, %	0.47
Fluorine, ppm	14
Iron, ppm	170
Zinc, ppm	86
Manganese, ppm	130
Copper, ppm	10
Cobalt, ppm	0.31
Iodine, ppm	0.88
Chromium, ppm	0.78
Selenium, ppm	0.29

Vitamins

Carotene, ppm	1.8
Vitamin K (as menadione), ppm	7.1
Thiamin Hydrochloride, ppm	24
Riboflavin, ppm	8.6
Niacin, ppm	91
Pantothenic Acid, ppm	29
Choline Chloride, ppm	1800
Folic Acid, ppm	2.7
Pyridoxine, ppm	11
Biotin, ppm	0.3
B ₁₂ , mcg/kg	43
Vitamin A, IU/grm	25
Vitamin D ₃ (added), IU/grm	2.0
Vitamin E, IU/kg	95
Ascorbic Acid, mg/grm	—

Calories provided by:

Protein, %	22.092
Fat (ether extract), %	11.339
Carbohydrates, %	66.569

***Product Code**

1. Formulation based on calculated values from the latest ingredient analysis information. Since nutrient composition of natural ingredients varies and some nutrient loss will occur due to manufacturing processes, analysis will differ accordingly.
2. Nutrients expressed as percent of ration except where otherwise indicated. Moisture content is assumed to be 10.0% for the purpose of calculations.
3. NDF = approximately cellulose, hemicellulose and lignin.
4. ADF = approximately cellulose and lignin.
5. Physiological Fuel Value (kcal/grm) = Sum of decimal fractions of protein, fat and carbohydrate (use Nitrogen Free Extract) x 4,9,4 kcal/grm respectively.

For ordering information, contact TestDiet® at 765-966-1885.

ADVANCED PROTOCOL

TestDiet
www.testdiet.com

Diet Preparation Services Support
NCTR Experiment 2190

5K96 Irradiated Base Diet Xenoestrogen Chemistry Analyses

Lot #: 12MAY02RTD1	
2190 99 00000 3	
Date Sampled: 06/14/12	
Results	
Genistein	0.100 ppm
Daidzein	0.046 ppm
Coumestrol	< LOQ
Zearalenone	<LOQ
BPA	Mean = 1.65 ppb
	SD = 0.36 ppb
	%RSD = 22.2 ppb

Lot #: 12DEC10RTD1	
2190 99 000 60	
Date Sampled: 01/28/13	
Results	
Genistein	0.030 ppm
Daidzein	0.017 ppm
Coumestrol	< LOQ
Zearalenone	<LOQ
BPA	0.51 ppb

Lot #: 12JUL23RTD1	
2190 99 000 36	
Date Sampled: 09/24/12	
Results	
Genistein	0.026 ppm
Daidzein	0.041 ppm
Coumestrol	< LOQ
Zearalenone	<LOQ
BPA	<LoB

Lot #: 13MAR01RTD1	
2190 99 000 93	
Date Sampled: 04/23/14	
Results	
Genistein	0.032 ppm
Daidzein	0.025 ppm
Coumestrol	0.005 ppm
Zearalenone	0.001 ppm
BPA	1.43 ppb

Lot #: 12NOV29RTDI	
2190 99 000 58	
Date Sampled: 01/04/13	
Results	
Genistein	0.013 ppm
Daidzein	0.007 ppm
Coumestrol	< LOQ
Zearalenone	<LOQ
BPA	0.74 ppb

Lot #: 13JUL01RTD1	
2190 99 00 174	
Date Sampled: 08/05/13	
Results	
Genistein	0.627 ppm
Daidzein	0.651 ppm
Coumestrol	0.000 ppm
Zearalenone	0.000 ppm
BPA	3.03 ppb

5K96 Irradiated Base Diet Xenoestrogen Chemistry Analyses

Lot #: 13SEPT19RTD1	
2190 99 00 251	
Date Sampled: 12/06/13	
Results	
Genistein	0.304 ppm
Daidzein	0.278 ppm
Coumestrol	0.008 ppm
Zearalenone	0.000 ppm
BPA	0.96 ppb

Lot #: 14AUG08RTD1	
2190 99 00 305	
Date Sampled: 09/30/14	
Results	
Genistein	0.154 ppm
Daidzein	0.097 ppm
Coumestrol	0.000 ppm
Zearalenone	0.000 ppm
BPA	2.49 ppb

Lot #: 14JAN08RTD1	
2190 99 00 267	
Date Sampled: 03/14/14	
Results	
Genistein	0.328 ppm
Daidzein	0.254 ppm
Coumestrol	0.000 ppm
Zearalenone	0.000 ppm
BPA	0.78 ppb

Lot #: 14APR30RTD1	
2190 99 00 290	
Date Sampled: 06/24/14	
Results	
Genistein	0.313 ppm
Daidzein	0.383 ppm
Coumestrol	0.000 ppm
Zearalenone	0.005 ppm
BPA	1.31 ppb

5K96 Irradiated Base Diet Microbiology Analyses

Lot #: 12MAY02RTD1	
2190 99 0000 4	
Date Sampled: 06/14/12	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Lot #: 13MAR01RTD1	
2190 99 000 94	
Date Sampled: 04/23/13	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Lot #: 12JUL23RTD1	
2190 99 000 37	
Date Sampled: 09/24/12	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Lot #: 13JUL01RTD1	
2190 99 00 175	
Date Sampled: 08/05/13	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Lot #: 12NOV29RTDI	
2190 99 000 59	
Date Sampled: 01/04/13	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

13SEPT19RTD1	
2190 99 00 252	
Date Sampled: 12/06/13	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Lot #: 12DEC10RTD1	
2190 99 000 61	
Date Sampled: 01/28/13	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

14JAN08RTD1	
2190 99 00 268	
Date Sampled: 03/14/14	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

5K96 Irradiated Base Diet Microbiology Analyses

14APR30RTD1	
2190 99 00 291	
Date Sampled: 06/24/14	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

14AUG08RTD1	
2190 99 00 315	
Date Sampled: 10/03/14	
Results	
Feed-Bacteria Count	0 cfu/gram
Spec Bacterial Path.	Negative
Feed-Mold Count	0 cfu/gram
Spec Fungal Path.	Negative

Note: SCR #: 2190 99 00 306 was rejected,
2190 99 00 314 and 2190 99 00 315 were resamples. See
Microbiology Report for more details.

BPA in 0.3% CMC, Room Temperature Chemistry Stability Analyses

DOSE LEVEL (ug/kg)	DOSE Conc. (ug/ml)	BATCH #	Date Sampled	CHEMISTRY SCR #	CHEMISTRY RESULTS				COMMENTS
					Target Dose (ug/ml)	Day Sampled	Overall Mean (N=9) BPA (ug/ml)	% of Target	
2.5	0.5	BP1-12001	08/08/12	2190 99 000 13	0.500	0	0.493	99.3	Room Temperature
2.5	0.5	BP1-12001	08/22/12	2190 99 000 23	0.500	15	0.479	95.8	Room Temperature
2.5	0.5	BP1-12001	09/05/12	2190 99 000 27	0.500	29	0.540	107.8	Room Temperature
2.5	0.5	BP1-12001	09/12/12	2190 99 000 30	0.500	36	0.506	101.3	Room Temperature
2.5	0.5	BP1-12001	09/19/12	2190 99 000 33	0.500	43	0.523	104.6	Room Temperature
2.5	0.5	BP1-12001	09/26/12	2190 99 000 38	0.500	50	0.505	101.0	Room Temperature

DOSE LEVEL (ug/kg)	DOSE Conc. (ug/ml)	BATCH #	Date Sampled	CHEMISTRY SCR #	CHEMISTRY RESULTS				COMMENTS
					Target Dose (ug/ml)	Day Sampled	Overall Mean (N=9) BPA (ug/ml)	% of Target	
25000	5000	BP5-12001	08/09/12	2190 99 000 20	5000	0	4670	93.4	Room Temperature
25000	5000	BP5-12001	08/23/12	2190 99 000 26	5000	15	4716 (N=9)	94.3	Room Temperature
25000	5000	BP5-12001	09/06/12	2190 99 000 29	5000	29	5208	104.0	Room Temperature
25000	5000	BP5-12001	09/13/12	2190 99 000 32	5000	36	5414	108.0	Room Temperature
25000	5000	BP5-12001	09/20/12	2190 99 000 35	5000	43	5173	103.0	Room Temperature
25000	5000	BP5-12001	09/27/12	2190 99 000 40	5000	50	5120	102.4	Room Temperature

EE₂ in 0.3% CMC, Room Temperature Chemistry Stability Analyses

DOSE LEVEL (ug/kg)	DOSE Conc. (ug/ml)	BATCH #	Date Sampled	CHEMISTRY SCR #	CHEMISTRY RESULTS				COMMENTS
					Target Dose (ug/ml)	Day Sampled	Overall Mean (N=9 or 10) EE ₂ (ug/ml)	% of Target	
0.05	0.01	NA	06/05/12	2190 99 0000 1	0.100	1	0.0106	106.0	Room Temperature
0.05	0.01	NA	06/12/12	2190 99 0000 2	0.100	8	0.0103	103.0	Room Temperature
0.05	0.01	NA	06/19/12	2190 99 0000 5	0.100	15	0.0094	93.7	Room Temperature
0.05	0.01	NA	06/26/12	2190 99 0000 6	0.100	22	0.0098	97.6	Room Temperature
0.05	0.01	NA	07/03/12	2190 99 0000 8	0.100	29	0.0092	92.1	Room Temperature
0.05	0.01	NA	07/10/12	2190 99 0000 9	0.100	36	0.0090	90.2	Room Temperature
0.05	0.01	NA	07/17/12	2190 99 000 10	0.100	43	0.0108	108.0	Room Temperature
0.05	0.01	NA	07/24/12	2190 99 000 12	0.100	50	0.0092	91.6	Room Temperature

DOSE LEVEL (ug/kg)	DOSE Conc. (ug/ml)	BATCH #	Date Sampled	CHEMISTRY SCR #	CHEMISTRY RESULTS				COMMENTS
					Target Dose (ug/ml)	Day Sampled	Overall Mean (N=9 or 10) EE ₂ (ug/ml)	% of Target	
0.5	0.1	EE1-12001	08/07/12	2190 99 000 16	0.100	0	0.106	106.0	Room Temperature
0.5	0.1	EE1-12001	08/22/12	2190 99 000 24	0.100	15	0.107	106.9	Room Temperature
0.5	0.1	EE1-12001	09/05/12	2190 99 000 28	0.100	29	0.106	105.6	Room Temperature
0.5	0.1	EE1-12001	09/12/12	2190 99 000 31	0.100	36	0.0988	98.8	Room Temperature
0.5	0.1	EE1-12001	09/19/12	2190 99 000 34	0.100	43	0.0982	98.2	Room Temperature
0.5	0.1	EE1-12001	09/26/12	2190 99 000 39	0.100	50	0.102	101.8	Room Temperature

Diet Preparation Services Support
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0.6% CMC, Chemistry Analyses, (Used to Formulate Solutions)

DOSE LEVEL (%)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.6	CMC6-12001	08/03/12	NA	NA	NA
0.6	CMC6-12002	09/04/12	NA	NA	NA
0.6	CMC6-12003	10/01/12	NA	NA	NA
0.6	CMC6-12004	11/06/12	NA	NA	NA
0.6	CMC6-12005	11/20/12	NA	NA	NA
0.6	CMC6-12006	11/26/12	NA	NA	NA
0.6	CMC6-12007	12/07/12	NA	NA	NA
0.6	CMC6-12008	12/24/12	NA	NA	NA
0.6	CMC6-13001	01/18/13	NA	NA	NA
0.6	CMC6-13002	01/31/13	NA	NA	NA
0.6	CMC6-13003	02/12/13	NA	NA	NA
0.6	CMC6-13004	02/27/13	NA	NA	NA
0.6	CMC6-13005	03/19/13	NA	NA	NA
0.6	CMC6-13006	04/04/13	NA	NA	NA
0.6	CMC6-13007	04/17/13	NA	NA	NA
0.6	CMC6-13008	05/09/13	NA	NA	NA
0.6	CMC6-13009	06/04/13	NA	NA	NA
0.6	CMC6-13010	06/20/13	NA	NA	NA
0.6	CMC6-13011	07/18/13	NA	NA	NA
0.6	CMC6-14001	01/27/14	NA	NA	NA
0.6	CMC6-14002	02/24/14	NA	NA	NA
0.6	CMC6-14003	04/07/14	NA	NA	NA
0.6	CMC6-14004	05/12/14	NA	NA	NA
0.6	CMC6-14005	06/02/14	NA	NA	NA
0.6	CMC6-14006	07/29/14	NA	NA	NA
0.6	CMC6-14007	09/16/14	NA	NA	NA
0.6	CMC6-14008	11/20/14	NA	NA	NA

Diet Preparation Services Support
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0.3% CMC, Chemistry Analyses

DOSE LEVEL (%)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.3	CMC3-12001	08/03/12	NA	2190 99 00018	Dose Certification
0.3	CMC3-12002	09/04/12	NA	NA	NA
0.3	CMC3-12003	09/17/12	NA	NA	NA
0.3	CMC3-12004	10/01/12	NA	NA	NA
0.3	CMC3-12005	11/06/12	NA	NA	NA
0.3	CMC3-12006	11/13/12	NA	NA	NA
0.3	CMC3-12007	11/26/12	NA	NA	NA
0.3	CMC3-12008	12/07/12	NA	NA	NA
0.3	CMC3-12009	12/24/12	NA	NA	NA
0.3	CMC3-13001	01/18/13	NA	NA	NA
0.3	CMC3-13002	01/31/13	NA	2190 99 000 62	Discarded, did not meet specifications
0.3	CMC3-13003	02/12/13	NA	2190 99 000 71	Dose Certification
0.3	CMC3-13004	02/25/13	NA	2190 99 000 82	Dose Certification
0.3	CMC3-13005	03/07/13	NA	2190 99 000 83	Dose Certification
0.3	CMC3-13006	03/19/13	NA	2190 99 000 84	Dose Certification
0.3	CMC3-13007	04/04/13	NA	2190 99 000 85	Dose Certification
0.3	CMC3-13008	04/30/13	NA	2190 99 000 95	Dose Certification
0.3	CMC3-13009	05/10/13	NA	2190 99 000 96	Dose Certification
0.3	CMC3-13010	05/30/13	NA	2190 99 00 164	Dose Certification
0.3	CMC3-13011	06/20/13	NA	2190 99 00 171	Dose Certification
0.3	CMC3-13012	07/11/13	NA	2190 99 00 172	Dose Certification
0.3	CMC3-13013	08/01/13	NA	2190 99 00 173	Dose Certification
0.3	CMC3-13014	08/19/13	NA	2190 99 00 183	Dose Certification
0.3	CMC3-13015	09/05/13	NA	2190 99 00 184	Dose Certification
0.3	CMC3-13016	09/24/13	NA	2190 99 00 185	Dose Certification
0.3	CMC3-13017	10/11/13	NA	2190 99 00 186	Dose Certification
0.3	CMC3-13018	11/12/13	NA	2190 99 00 194	Dose Certification
0.3	CMC3-13019	11/29/13	NA	2190 99 00 196	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

0.3% CMC, Chemistry Analyses

DOSE LEVEL (%)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.3	CMC3-13020	12/12/13	NA	2190 99 00 256	Dose Certification
0.3	CMC3-14001	01/27/14	NA	2190 99 00 257	Dose Certification
0.3	CMC3-14002	02/24/14	NA	2190 99 00 300	Dose Certification SCR used out of sequence
0.3	CMC3-14003	03/31/14	NA	2190 99 00 269	Dose Certification
0.3	CMC3-14004	04/16/14	NA	2190 99 00 279	Dose Certification
0.3	CMC3-14005	05/29/14	NA	2190 99 00 281	Dose Certification
0.3	CMC3-14006	07/09/14	NA	2190 99 00 292	Dose Certification
0.3	CMC3-14007	08/07/14	NA	2190 99 00 294	Dose Certification
0.3	CMC3-14008	09/22/14	NA	2190 99 00 304	Dose Certification
0.3	CMC3-14009	11/20/14	NA	2190 99 00 320	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

2.5 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2.5	BP1-12001	08/07/12	09/11/12	2190 99 00013	Dose Certification / Stability
2.5	BP1-12002	09/07/12	10/27/12	NA	NA
2.5	BP1-12003	10/03/12	11/22/12	2190 99 00042	Dose Certification
2.5	BP1-12004	11/08/12	12/28/12	NA	NA
2.5	BP1-12005	11/21/12	01/10/13	NA	NA
2.5	BP1-12006	12/04/12	01/23/13	2190 99 00051	Dose Certification
2.5	BP1-12007	12/06/12	01/25/13	NA	NA
2.5	BP1-12008	12/13/12	02/01/13	NA	NA
2.5	BP1-12009	12/19/12	02/07/13	NA	NA
2.5	BP1-12010	01/10/13	03/01/13	NA	NA
2.5	BP1-13001	01/17/13	03/08/13	NA	NA
2.5	BP1-13002	01/22/13	03/13/13	NA	NA
2.5	BP1-13003	02/01/13	03/23/13	NA	NA
2.5	BP1-13004	02/04/13	03/26/13	2190 99 000 63	Dose Certification
2.5	BP1-13005	02/08/13	03/30/13	NA	NA
2.5	BP1-13006	02/19/13	04/10/13	NA	NA
2.5	BP1-13007	02/25/13	04/16/13	NA	NA
2.5	BP1-13008	02/27/13	04/18/13	NA	NA
2.5	BP1-13009	02/28/13	04/19/13	NA	NA
2.5	BP1-13010	03/07/13	04/26/13	NA	NA
2.5	BP1-13011	03/18/13	05/07/13	NA	NA
2.5	BP1-13012	03/25/13	05/14/13	NA	NA
2.5	BP1-13013	03/25/13	05/14/13	NA	NA
2.5	BP1-13014	03/29/13	05/18/13	NA	NA
2.5	BP1-13015	03/29/13	05/18/13	NA	NA
2.5	BP1-13016	04/08/13	05/28/13	2190 99 000 86	Dose Certification
2.5	BP1-13017	04/10/13	05/30/13	NA	NA
2.5	BP1-13018	04/15/13	06/04/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

2.5 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2.5	BP1-13019	04/30/13	06/19/13	NA	NA
2.5	BP1-13020	05/01/13	06/20/13	NA	NA
2.5	BP1-13021	05/14/13	07/03/13	NA	NA
2.5	BP1-13022	05/15/13	07/04/13	NA	NA
2.5	BP1-13023	05/20/13	07/09/13	2190 99 000 99	Dose Certification
2.5	BP1-13024	05/21/13	07/10/13	NA	NA
2.5	BP1-13025	06/04/13	07/24/13	NA	NA
2.5	BP1-13026	06/11/13	07/31/13	NA	NA
2.5	BP1-13027	06/18/13	08/07/13	NA	NA
2.5	BP1-13028	06/18/13	08/07/13	NA	NA
2.5	BP1-13029	06/28/13	08/17/13	NA	NA
2.5	BP1-13030	07/11/13	08/30/13	NA	NA
2.5	BP1-13031	07/17/13	09/05/13	NA	NA
2.5	BP1-13032	07/19/13	09/07/13	NA	NA
2.5	BP1-13033	07/22/13	09/10/13	NA	NA
2.5	BP1-13034	07/31/13	09/19/13	NA	NA
2.5	BP1-13035	08/05/13	09/24/13	2190 99 00 176	Dose Certification
2.5	BP1-13036	08/08/13	09/27/13	NA	NA
2.5	BP1-13037	08/14/13	10/03/13	NA	NA
2.5	BP1-13038	08/21/13	10/10/13	NA	NA
2.5	BP1-13039	08/26/13	10/15/13	NA	NA
2.5	BP1-13040	09/03/13	10/23/13	NA	NA
2.5	BP1-13041	09/12/13	11/01/13	NA	NA
2.5	BP1-13042	09/16/13	11/05/13	NA	NA
2.5	BP1-13043	09/19/13	11/08/13	NA	NA
2.5	BP1-13044	09/25/13	11/14/13	NA	NA
2.5	BP1-13045	10/09/13	11/28/13	NA	NA
2.5	BP1-13046	10/11/13	11/30/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

2.5 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2.5	BP1-13047	10/16/13	12/05/13	NA	NA
2.5	BP1-13048	10/22/13	12/11/13	2190 99 00 191	Dose Certification
2.5	BP1-13049	10/23/13	12/12/13	NA	NA
2.5	BP1-13050	11/06/13	12/26/13	NA	NA
2.5	BP1-13051	11/13/13	01/02/14	NA	NA
2.5	BP1-13052	11/21/13	01/10/14	NA	NA
2.5	BP1-13053	12/03/13	01/22/14	NA	NA
2.5	BP1-13054	12/10/13	01/29/14	2190 99 00 199	Dose Certification
2.5	BP1-13055	12/13/13	02/01/14	NA	NA
2.5	BP1-13056	12/23/13	02/11/14	NA	NA
2.5	BP1-14001	01/08/14	02/27/14	NA	NA
2.5	BP1-14002	01/08/14	02/27/14	NA	NA
2.5	BP1-14003	01/16/14	03/07/14	NA	NA
2.5	BP1-14004	02/03/14	03/25/14	NA	NA
2.5	BP1-14005	02/10/14	04/01/14	2190 99 00 260	Dose Certification
2.5	BP1-14006	02/14/14	04/05/14	NA	NA
2.5	BP1-14007	02/28/14	04/19/14	NA	NA
2.5	BP1-14008	03/19/14	05/08/14	NA	NA
2.5	BP1-14009	03/27/14	05/16/14	NA	NA
2.5	BP1-14010	04/08/14	05/28/14	2190 99 00 272	Dose Certification
2.5	BP1-14011	04/09/14	05/29/14	NA	NA
2.5	BP1-14012	04/30/14	06/19/14	NA	NA
2.5	BP1-14013	05/12/14	07/01/14	NA	NA
2.5	BP1-14014	05/19/14	07/08/14	NA	NA
2.5	BP1-14015	06/04/14	07/24/14	2190 99 00 284	Dose Certification
2.5	BP1-14016	06/05/14	07/25/14	NA	NA
2.5	BP1-14017	06/19/14	08/08/14	NA	NA
2.5	BP1-14018	07/08/14	08/27/14	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

2.5 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2.5	BP1-14019	07/24/14	09/12/14	NA	NA
2.5	BP1-14020	08/07/14	09/26/14	NA	NA
2.5	BP1-14021	08/11/14	09/30/14	2190 99 00 295	Dose Certification
2.5	BP1-14022	09/03/14	10/23/14	NA	NA
2.5	BP1-14023	09/15/14	11/04/14	NA	NA
2.5	BP1-14024	09/30/14	11/19/14	NA	NA
2.5	BP1-14025	10/06/14	11/25/14	2190 99 00 307	Dose Certification
2.5	BP1-14026	11/21/14	01/10/15	NA	NA
2.5	BP1-14027	12/08/14	01/27/15	2190 99 00 321	
2.5	BP1-14028	12/09/14	01/28/15	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25	BP3-12001	08/07/12	09/11/12	2190 99 00014	Discarded due to visual contamination. (not used)
25	BP3-12002	08/22/12	09/25/12	2190 99 000 25	Re-mix
25	BP3-12003	09/07/12	10/27/12	NA	NA
25	BP3-12004	10/03/12	11/22/12	2190 99 000 43	Dose Certification
25	BP3-12005	11/08/12	12/28/12	NA	NA
25	BP3-12006	11/21/12	01/10/13	NA	NA
25	BP3-12007	12/04/12	01/23/13	2190 99 000 52	Dose Certification
25	BP3-12008	12/06/12	01/25/13	NA	NA
25	BP3-12009	12/13/12	02/01/13	NA	NA
25	BP3-12010	12/19/12	02/07/13	NA	NA
25	BP3-13001	01/22/13	03/13/13	NA	NA
25	BP3-13002	01/31/13	03/22/13	NA	NA
25	BP3-13003	02/01/13	03/23/13	NA	NA
25	BP3-13004	02/04/13	03/26/13	2190 99 000 64	Dose Certification
25	BP3-13005	02/19/13	04/10/13	NA	NA
25	BP3-13006	02/25/13	04/16/13	NA	NA
25	BP3-13007	02/27/13	04/18/13	NA	NA
25	BP3-13008	02/28/13	04/19/13	NA	NA
25	BP3-13009	03/07/13	04/26/13	NA	NA
25	BP3-13010	03/18/13	05/07/13	NA	NA
25	BP3-13011	03/25/13	05/14/13	NA	NA
25	BP3-13012	03/25/13	05/14/13	NA	NA
25	BP3-13013	03/29/13	05/18/13	NA	NA
25	BP3-13014	03/29/13	05/18/13	NA	NA
25	BP3-13015	04/08/13	05/28/13	2190 99 000 87	Dose Certification
25	BP3-13016	04/10/13	05/30/13	NA	NA
25	BP3-13017	04/30/13	06/19/13	NA	NA
25	BP3-13018	05/01/13	06/20/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25	BP3-13019	05/14/13	07/03/13	NA	NA
25	BP3-13020	05/15/13	07/04/13	NA	NA
25	BP3-13021	05/20/13	07/09/13	2190 99 00 100	Dose Certification
25	BP3-13022	05/21/13	07/10/13	NA	NA
25	BP3-13023	06/04/13	07/24/13	NA	NA
25	BP3-13024	06/11/13	07/31/13	NA	NA
25	BP3-13025	06/18/13	08/07/13	NA	NA
25	BP3-13026	06/18/13	08/07/13	NA	NA
25	BP3-13027	07/11/13	08/30/13	NA	NA
25	BP3-13028	07/17/13	09/05/13	NA	NA
25	BP3-13029	07/19/13	09/07/13	NA	NA
25	BP3-13030	07/22/13	09/10/13	NA	NA
25	BP3-13031	07/31/13	09/19/13	NA	NA
25	BP3-13032	08/05/13	09/24/13	2190 99 00 177	Dose Certification
25	BP3-13033	08/08/13	09/27/13	NA	NA
25	BP3-13034	08/14/13	10/03/13	NA	NA
25	BP3-13035	08/21/13	10/10/13	NA	NA
25	BP3-13036	08/26/13	10/15/13	NA	NA
25	BP3-13037	09/03/13	10/23/13	NA	NA
25	BP3-13038	09/12/13	11/01/13	NA	NA
25	BP3-13039	09/19/13	11/08/13	NA	NA
25	BP3-13040	09/25/13	11/14/13	NA	NA
25	BP3-13041	09/30/13	11/19/13	NA	NA
25	BP3-13042	10/09/13	11/28/13	NA	NA
25	BP3-13043	10/16/13	12/05/13	NA	NA
25	BP3-13044	10/22/13	12/11/13	2190 99 00 192	Dose Certification
25	BP3-13045	10/23/13	12/12/13	NA	NA
25	BP3-13046	11/06/13	12/26/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25	BP3-13047	11/13/13	01/02/14	NA	NA
25	BP3-13048	11/21/13	01/10/14	NA	NA
25	BP3-13049	12/03/13	01/22/14	NA	NA
25	BP3-13050	12/10/13	01/29/14	2190 99 00 200	Dose Certification
25	BP3-13051	12/13/13	02/01/14	NA	NA
25	BP3-13052	12/23/13	02/11/14	NA	NA
25	BP3-14001	01/08/14	02/27/14	NA	NA
25	BP3-14002	01/16/14	03/07/14	NA	NA
25	BP3-14003	01/28/14	03/19/14	NA	NA
25	BP3-14004	02/10/14	04/01/14	2190 99 00 261	Dose Certification
25	BP3-14005	02/14/14	04/05/14	NA	NA
25	BP3-14006	02/28/14	04/19/14	NA	NA
25	BP3-14007	03/19/14	05/08/14	NA	NA
25	BP3-14008	04/03/14	05/23/14	NA	NA
25	BP3-14009	04/08/14	05/28/14	2190 99 00 273	Dose Certification
25	BP3-14010	04/09/14	05/29/14	NA	NA
25	BP3-14011	04/30/14	06/19/14	NA	NA
25	BP3-14012	05/19/14	07/08/14	NA	NA
25	BP3-14013	05/29/14	07/18/14	NA	NA
25	BP3-14014	06/04/14	07/24/14	2190 99 00 285	Dose Certification
25	BP3-14015	06/19/14	08/08/14	NA	NA
25	BP3-14016	07/08/14	08/27/14	NA	NA
25	BP3-14017	07/24/14	09/12/14	NA	NA
25	BP3-14018	08/11/14	09/30/14	2190 99 00 296	Dose Certification
25	BP3-14019	08/12/14	10/01/14	NA	NA
25	BP3-14020	09/04/14	10/24/14	NA	NA
25	BP3-14021	09/15/14	11/04/14	NA	NA
25	BP3-14022	10/06/14	11/25/14	2190 99 00 308	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

25 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25	BP3-14023	11/06/14	12/26/14	NA	NA
25	BP3-14024	11/21/14	01/10/15	NA	NA
25	BP3-14025	12/08/14	01/27/15	2190 99 00 322	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

250 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (mg/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
250	BPA-12001	08/07/12	09/11/12	2190 99 000 15	Dose Certification
250	BPA-12002	09/07/12	10/11/12	NA	NA
250	BPA-12003	10/03/12	11/22/12	2190 99 000 44	Dose Certification
250	BPA-12004	11/08/12	12/28/12	NA	NA
250	BPA-12005	11/21/12	01/10/13	NA	NA
250	BPA-12006	12/04/12	01/23/13	2190 99 000 53	Dose Certification
250	BPA-12007	12/06/12	01/25/13	NA	NA
250	BPA-12008	12/13/12	02/01/13	NA	NA
250	BPA-12009	12/19/12	02/07/13	NA	NA
250	BPA-13001	01/22/13	03/13/13	NA	NA
250	BPA-13002	01/31/13	03/22/13	NA	NA
250	BPA-13003	02/01/13	03/23/13	NA	NA
250	BPA-13004	02/05/13	03/27/13	2190 99 000 65	Dose Certification
250	BPA-13005	02/19/13	04/10/13	NA	NA
250	BPA-13006	02/25/13	04/16/13	NA	NA
250	BPA-13007	02/27/13	04/18/13	NA	NA
250	BPA-13008	02/28/13	04/19/13	NA	NA
250	BPA-13009	03/07/13	04/26/13	NA	NA
250	BPA-13010	03/25/13	05/14/13	NA	NA
250	BPA-13011	03/25/13	05/14/13	NA	NA
250	BPA-13012	03/29/13	05/18/13	NA	NA
250	BPA-13013	03/29/13	05/18/13	NA	NA
250	BPA-13014	04/08/13	05/28/13	2190 99 000 88	Dose Certification
250	BPA-13015	04/12/13	06/01/13	NA	NA
250	BPA-13016	04/15/13	06/04/13	NA	NA
250	BPA-13017	04/30/13	06/19/13	NA	NA
250	BPA-13018	05/01/13	06/20/13	NA	NA
250	BPA-13019	05/14/13	07/03/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

250 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (mg/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
250	BPA-13020	05/15/13	07/04/13	NA	NA
250	BPA-13021	05/20/13	07/09/13	2190 99 00 101	Dose Certification
250	BPA-13022	05/21/13	07/10/13	NA	NA
250	BPA-13023	06/04/13	07/24/13	NA	NA
250	BPA-13024	06/11/13	07/31/13	NA	NA
250	BPA-13025	06/18/13	08/07/13	NA	NA
250	BPA-13026	06/18/13	08/07/13	NA	NA
250	BPA-13027	06/28/13	08/17/13	NA	NA
250	BPA-13028	07/11/13	08/30/13	NA	NA
250	BPA-13029	07/17/13	09/05/13	NA	NA
250	BPA-13030	07/19/13	09/07/13	NA	NA
250	BPA-13031	07/22/13	09/10/13	NA	NA
250	BPA-13032	07/31/13	09/19/13	NA	NA
250	BPA-13033	08/05/13	09/24/13	2190 99 00 178	Dose Certification
250	BPA-13034	08/08/13	09/27/13	NA	NA
250	BPA-13035	08/14/13	10/03/13	NA	NA
250	BPA-13036	08/21/13	10/10/13	NA	NA
250	BPA-13037	08/26/13	10/15/13	NA	NA
250	BPA-13038	09/03/13	10/23/13	NA	NA
250	BPA-13039	09/12/13	11/01/13	NA	NA
250	BPA-13040	09/19/13	11/08/13	NA	NA
250	BPA-13041	09/25/13	11/14/13	NA	NA
250	BPA-13042	09/30/13	11/19/13	NA	NA
250	BPA-13043	10/09/13	11/28/13	NA	NA
250	BPA-13044	10/17/13	12/06/13	NA	NA
250	BPA-13045	10/22/13	12/11/13	2190 99 00 193	Dose Certification
250	BPA-13046	10/23/13	12/12/13	NA	NA
250	BPA-13047	11/06/13	12/26/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

250 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (mg/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
250	BPA-13048	11/07/13	12/27/13	NA	NA
250	BPA-13049	11/13/13	01/02/14	NA	NA
250	BPA-13050	11/22/13	01/11/14	NA	NA
250	BPA-13051	12/03/13	01/22/14	NA	NA
250	BPA-13052	12/10/13	01/29/14	2190 99 00 253	Dose Certification
250	BPA-13053	12/23/13	02/11/14	NA	NA
250	BPA-13054	12/31/13	02/19/14	NA	NA
250	BPA-14001	01/08/14	02/27/14	NA	NA
250	BPA-14002	01/16/14	03/07/14	NA	NA
250	BPA-14003	01/28/14	03/19/14	NA	NA
250	BPA-14004	02/03/14	03/25/14	NA	NA
250	BPA-14005	02/10/14	04/01/14	2190 99 00 262	Dose Certification
250	BPA-14006	02/14/14	04/05/14	NA	NA
250	BPA-14007	02/28/14	04/19/14	NA	NA
250	BPA-14008	03/21/14	05/10/14	NA	NA
250	BPA-14009	04/03/14	05/23/14	NA	NA
250	BPA-14010	04/08/14	05/28/14	2190 99 00 274	Dose Certification
250	BPA-14011	04/28/14	06/17/14	NA	NA
250	BPA-14012	04/30/14	06/19/14	NA	Batch Discarded
250	BPA-14013	05/01/14	06/20/14	NA	NA
250	BPA-14014	05/19/14	07/08/14	NA	NA
250	BPA-14015	05/29/14	07/18/14	NA	NA
250	BPA-14016	06/04/14	07/24/14	2190 99 00 286	Dose Certification
250	BPA-14017	06/19/14	08/08/14	NA	NA
250	BPA-14018	06/23/14	08/12/14	NA	NA
250	BPA-14019	07/08/14	08/27/14	NA	NA
250	BPA-14020	08/04/14	09/23/14	NA	NA
250	BPA-14021	08/11/14	09/30/14	2190 99 00 297	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

250 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (mg/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
250	BPA-14022	08/12/14	10/01/14	NA	NA
250	BPA-14023	09/04/14	10/24/14	NA	NA
250	BPA-14024	09/15/14	11/04/14	NA	NA
250	BPA-14025	10/06/14	11/25/14	2190 99 00 309	Dose Certification
250	BPA-14026	10/29/14	12/18/14	NA	NA
250	BPA-14027	11/21/14	01/10/15	NA	NA
250	BPA-14028	12/08/14	01/27/15	2190 99 00 323	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

2500 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2500	BPB-12001	08/08/12	09/24/12	2190 99 000 19	Dose Certification
2500	BPB-12002	09/18/12	11/04/12	NA	NA
2500	BPB-12003	10/15/12	12/04/12	2190 99 000 47	Dose Certification
2500	BPB-12004	11/16/12	01/05/13	NA	NA
2500	BPB-12005	11/27/12	01/16/13	NA	NA
2500	BPB-12006	12/05/12	01/24/13	2190 99 000 56	Dose Certification
2500	BPB-12007	12/10/12	01/29/13	NA	NA
2500	BPB-12008	12/19/12	02/07/13	NA	NA
2500	BPB-12009	01/03/12	02/22/12	NA	NA
2500	BPB-12010	01/07/13	02/26/13	NA	NA
2500	BPB-13001	01/18/13	03/09/13	NA	NA
2500	BPB-13002	01/28/13	03/19/13	NA	NA
2500	BPB-13003	02/04/13	03/26/13	2190 99 000 66	Dose Certification
2500	BPB-13004	02/05/13	03/27/13	NA	NA
2500	BPB-13005	02/13/13	04/04/13	NA	NA
2500	BPB-13006	02/19/13	04/10/13	NA	NA
2500	BPB-13007	02/26/13	04/17/13	NA	NA
2500	BPB-13008	02/27/13	04/18/13	NA	NA
2500	BPB-13009	03/07/13	04/26/13	NA	NA
2500	BPB-13010	03/12/13	05/01/13	NA	NA
2500	BPB-13011	03/12/13	05/01/13	NA	NA
2500	BPB-13012	03/18/13	05/07/13	NA	NA
2500	BPB-13013	03/18/13	05/07/13	NA	NA
2500	BPB-13014	04/08/13	05/28/13	2190 99 000 89	Dose Certification
2500	BPB-13015	04/09/13	05/29/13	NA	NA
2500	BPB-13016	04/12/13	06/01/13	NA	NA
2500	BPB-13017	04/25/13	06/14/13	NA	NA
2500	BPB-13018	05/02/13	06/21/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

2500 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2500	BPB-13019	05/02/13	06/21/13	NA	NA
2500	BPB-13020	05/07/13	06/26/13	NA	NA
2500	BPB-13021	05/10/13	06/29/13	NA	NA
2500	BPB-13022	05/21/13	07/10/13	2190 99 00 162	Dose Certification
2500	BPB-13023	05/22/13	07/11/13	NA	NA
2500	BPB-13024	06/07/13	07/27/13	NA	NA
2500	BPB-13025	06/10/13	07/30/13	NA	NA
2500	BPB-13026	06/10/13	07/30/13	NA	NA
2500	BPB-13027	06/19/13	08/08/13	NA	NA
2500	BPB-13028	06/27/13	08/16/13	NA	NA
2500	BPB-13029	07/01/13	08/20/13	NA	NA
2500	BPB-13030	07/10/13	08/29/13	NA	NA
2500	BPB-13031	07/17/13	09/05/13	NA	NA
2500	BPB-13032	07/18/13	09/06/13	NA	NA
2500	BPB-13033	07/30/13	09/18/13	NA	NA
2500	BPB-13034	07/30/13	09/18/13	NA	NA
2500	BPB-13035	08/06/13	09/25/13	2190 99 00 181	Dose Certification
2500	BPB-13036	08/13/13	10/02/13	NA	NA
2500	BPB-13037	08/13/13	10/02/13	NA	NA
2500	BPB-13038	08/27/13	10/16/13	NA	NA
2500	BPB-13039	08/30/13	10/19/13	NA	NA
2500	BPB-13040	09/12/13	11/01/13	NA	NA
2500	BPB-13041	09/16/13	11/05/13	NA	NA
2500	BPB-13042	09/20/13	11/09/13	NA	NA
2500	BPB-13043	09/26/13	11/15/13	NA	NA
2500	BPB-13044	10/03/13	11/22/13	NA	NA
2500	BPB-13045	10/10/13	11/29/13	NA	NA
2500	BPB-13046	10/22/13	12/11/13	2190 99 00 187	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

2500 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2500	BPB-13047	10/23/13	12/12/13	NA	NA
2500	BPB-13048	11/07/13	12/27/13	NA	NA
2500	BPB-13049	11/15/13	01/04/14	NA	NA
2500	BPB-13050	11/15/13	01/04/14	NA	NA
2500	BPB-13051	11/27/13	01/16/14	NA	NA
2500	BPB-13052	12/05/13	01/24/14	NA	NA
2500	BPB-13053	12/10/13	01/29/14	2190 99 00 254	NA
2500	BPB-13054	12/26/13	02/14/14	NA	NA
2500	BPB-14001	01/13/14	03/04/14	NA	NA
2500	BPB-14002	01/13/14	03/04/14	NA	NA
2500	BPB-14003	01/27/14	03/18/14	NA	NA
2500	BPB-14004	02/05/14	03/27/14	NA	NA
2500	BPB-14005	02/10/14	04/01/14	2190 99 00 263	Dose Certification
2500	BPB-14006	02/28/14	04/19/14	NA	NA
2500	BPB-14007	03/14/14	05/03/14	NA	NA
2500	BPB-14008	03/25/14	05/14/14	NA	NA
2500	BPB-14009	04/08/14	05/28/14	2190 99 00 270	Dose Certification
2500	BPB-14010	04/09/14	05/29/14	NA	NA
2500	BPB-14011	05/07/14	06/26/14	NA	NA
2500	BPB-14012	05/07/14	06/26/14	NA	NA
2500	BPB-14013	05/27/14	07/16/14	NA	NA
2500	BPB-14014	06/04/14	07/24/14	2190 99 00 282	Dose Certification
2500	BPB-14015	06/23/14	08/12/14	NA	NA
2500	BPB-14016	07/08/14	08/27/14	NA	NA
2500	BPB-14017	07/24/14	09/12/14	NA	NA
2500	BPB-14018	08/04/14	09/23/14	NA	NA
2500	BPB-14019	08/11/14	09/30/14	2190 99 00 298	Dose Certification
2500	BPB-14020	09/15/14	11/04/14	NA	NA

2500 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
2500	BPB-14021	09/30/14	11/19/14	NA	NA
2500	BPB-14022	10/06/14	11/25/14	2190 99 00 310	Dose Certification
2500	BPB-14023	11/21/14	01/10/15	NA	NA
2500	BPB-14023	12/08/14	01/27/15	2190 99 00 324	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

25000 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25000	BP5-12001	08/08/12	09/24/12	2190 99 000 20	Dose Certification
25000	BP5-12002	09/18/12	11/04/12	NA	NA
25000	BP5-12003	10/15/12	12/04/12	2190 99 000 48	Dose Certification
25000	BP5-12004	11/16/12	01/05/13	NA	NA
25000	BP5-12005	11/27/12	01/16/13	NA	NA
25000	BP5-12006	12/05/12	01/24/13	2190 99 000 57	Dose Certification
25000	BP5-12007	12/10/12	01/29/13	NA	NA
25000	BP5-12008	12/19/12	02/07/13	NA	NA
25000	BP5-12009	01/03/13	02/22/13	NA	NA
25000	BP5-12010	01/07/13	02/26/13	NA	NA
25000	BP5-13001	01/18/13	03/09/13	NA	NA
25000	BP5-13002	01/28/13	03/19/13	NA	NA
25000	BP5-13003	02/05/13	03/27/13	2190 99 000 67	Dose Certification
25000	BP5-13004	02/05/13	03/27/13	NA	NA
25000	BP5-13005	02/19/13	04/10/13	NA	NA
25000	BP5-13006	02/19/13	04/10/13	NA	NA
25000	BP5-13007	02/26/13	04/17/13	NA	NA
25000	BP5-13008	02/27/13	04/18/13	NA	NA
25000	BP5-13009	03/07/13	04/26/13	NA	NA
25000	BP5-13010	03/18/13	05/07/13	NA	NA
25000	BP5-13011	03/18/13	05/07/13	NA	NA
25000	BP5-13012	03/26/13	05/15/13	NA	NA
25000	BP5-13013	03/26/13	05/15/13	NA	NA
25000	BP5-13014	04/08/13	05/28/13	2190 99 000 90	Dose Certification
25000	BP5-13015	04/09/13	05/29/13	NA	NA
25000	BP5-13016	04/15/13	06/04/13	NA	NA
25000	BP5-13017	04/25/13	06/14/13	NA	NA
25000	BP5-13018	05/02/13	06/21/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25000 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25000	BP5-13019	05/07/13	06/26/13	NA	NA
25000	BP5-13020	05/10/13	06/29/13	NA	NA
25000	BP5-13021	05/10/13	06/29/13	NA	NA
25000	BP5-13022	05/21/13	07/10/13	2190 99 00 163	Dose Certification
25000	BP5-13023	05/22/13	07/11/13	NA	NA
25000	BP5-13024	06/07/13	07/27/13	NA	NA
25000	BP5-13025	06/10/13	07/30/13	NA	NA
25000	BP5-13026	06/19/13	08/08/13	NA	NA
25000	BP5-13027	06/27/13	08/16/13	NA	NA
25000	BP5-13028	07/01/13	08/20/13	NA	NA
25000	BP5-13029	07/01/13	08/20/13	NA	NA
25000	BP5-13030	07/10/13	08/29/13	NA	NA
25000	BP5-13031	07/17/13	09/05/13	NA	NA
25000	BP5-13032	07/22/13	09/10/13	NA	NA
25000	BP5-13033	07/30/13	09/18/13	NA	NA
25000	BP5-13034	08/06/13	09/25/13	2190 99 00 182	Dose Certification
25000	BP5-13035	08/13/13	10/02/13	NA	NA
25000	BP5-13036	08/13/13	10/02/13	NA	NA
25000	BP5-13037	08/27/13	10/16/13	NA	NA
25000	BP5-13038	08/30/13	10/19/13	NA	NA
25000	BP5-13039	09/12/13	11/01/13	NA	NA
25000	BP5-13040	09/16/13	11/05/13	NA	NA
25000	BP5-13041	09/20/13	11/09/13	NA	NA
25000	BP5-13042	09/26/13	11/15/13	NA	NA
25000	BP5-13043	10/03/13	11/22/13	NA	NA
25000	BP5-13044	10/10/13	11/29/13	NA	NA
25000	BP5-13045	10/22/13	12/11/13	2190 99 00 188	Dose Certification
25000	BP5-13046	10/23/13	12/12/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25000 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25000	BP5-13047	11/07/13	12/27/13	NA	NA
25000	BP5-13048	11/15/13	01/04/14	NA	NA
25000	BP5-13049	11/15/13	01/04/14	NA	NA
25000	BP5-13050	11/27/13	01/16/14	NA	NA
25000	BP5-13051	12/05/13	01/24/14	NA	NA
25000	BP5-13052	12/10/13	01/29/14	2190 99 00 255	Dose Certification
25000	BP5-13053	12/26/13	02/14/14	NA	NA
25000	BP5-14001	01/13/14	03/04/14	NA	NA
25000	BP5-14002	01/13/14	03/04/14	NA	NA
25000	BP5-14003	02/05/14	03/27/14	NA	NA
25000	BP5-14004	02/10/14	04/01/14	2190 99 00 264	Dose Certification
25000	BP5-14005	02/28/14	04/19/14	NA	NA
25000	BP5-14006	03/14/14	05/03/14	NA	NA
25000	BP5-14007	03/25/14	05/14/14	NA	NA
25000	BP5-14008	04/08/14	05/28/14	2190 99 00 271	Dose Certification (Not reported)
25000	BP5-14009	04/09/14	05/29/14	NA	NA
25000	BP5-14010	04/14/14	06/03/14	2190 99 00 277	Dose Certification (Not reported)
25000	BP5-14011	04/15/14	06/04/14	2190 99 00 278	Dose Certification (Not reported)
25000	BP5-14012	04/16/14	06/05/14	2190 99 00 280	Dose Certification
25000	BP5-14013	05/12/14	07/01/14	NA	NA
25000	BP5-14014	05/27/14	07/16/14	NA	NA
25000	BP5-14015	06/04/14	07/24/14	2190 99 00 283	Dose Certification
25000	BP5-14016	06/23/14	08/12/14	NA	NA
25000	BP5-14017	07/08/14	08/27/14	NA	NA
25000	BP5-14018	07/24/14	09/12/14	NA	NA
25000	BP5-14019	08/11/14	09/30/14	2190 99 00 299	Dose Certification
25000	BP5-14020	09/03/14	10/23/14	NA	NA
25000	BP5-14021	09/15/14	11/04/14	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

25000 ug/kg BPA in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
25000	BP5-14022	10/06/14	11/25/14	2190 99 00 311	Dose Certification
25000	BP5-14023	11/21/14	01/10/15	NA	NA
25000	BP5-14024	12/08/14	01/27/15	2190 99 00 325	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

0.05 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.05	EE8-12001	08/07/12	09/11/12	2190 99 000 17	Homogeneity
0.05	EE8-12002	09/06/12	10/26/12	NA	NA
0.05	EE8-12003	10/03/12	11/22/12	2190 99 000 45	Dose Certification
0.05	EE8-12004	11/08/12	12/28/12	NA	NA
0.05	EE8-12005	11/28/12	01/17/13	NA	NA
0.05	EE8-12006	12/04/12	01/23/13	2190 99 000 54	Dose Certification
0.05	EE8-12007	12/06/12	01/25/13	NA	NA
0.05	EE8-12008	12/13/12	02/01/13	NA	NA
0.05	EE8-12009	12/19/12	02/07/13	NA	NA
0.05	EE8-13001	01/28/13	03/19/13	NA	NA
0.05	EE8-13002	02/04/13	03/26/13	2190 99 000 68	Dose Certification
0.05	EE8-13003	02/05/13	03/27/13	NA	NA
0.05	EE8-13004	02/20/13	04/11/13	NA	NA
0.05	EE8-13005	02/21/13	04/12/13	NA	NA
0.05	EE8-13006	02/27/13	04/18/13	NA	NA
0.05	EE8-13007	02/28/13	04/19/13	NA	NA
0.05	EE8-13008	03/12/13	05/01/13	NA	NA
0.05	EE8-13009	03/18/13	05/07/13	NA	NA
0.05	EE8-13010	04/08/13	05/28/13	2190 99 000 91	Dose Certification
0.05	EE8-13011	04/09/13	05/29/13	NA	NA
0.05	EE8-13012	04/15/13	06/04/13	NA	NA
0.05	EE8-13013	04/30/13	06/19/13	NA	NA
0.05	EE8-13014	05/01/13	06/20/13	NA	NA
0.05	EE8-13015	05/07/13	06/26/13	NA	NA
0.05	EE8-13016	05/13/13	07/02/13	NA	NA
0.05	EE8-13017	05/20/13	07/09/13	2190 99 000 97	Dose Certification
0.05	EE8-13018	05/24/13	07/13/13	NA	NA
0.05	EE8-13019	06/04/13	07/24/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

0.05 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.05	EE8-13020	06/18/13	08/07/13	NA	NA
0.05	EE8-13021	06/27/13	08/16/13	NA	NA
0.05	EE8-13022	07/10/13	08/29/13	NA	NA
0.05	EE8-13023	07/17/13	09/05/13	NA	NA
0.05	EE8-13024	07/23/13	09/11/13	NA	NA
0.05	EE8-13025	07/30/13	09/18/13	NA	NA
0.05	EE8-13026	08/05/13	09/24/13	2190 99 00 179	Dose Certification
0.05	EE8-13027	08/13/13	10/02/13	NA	NA
0.05	EE8-13028	08/21/13	10/10/13	NA	NA
0.05	EE8-13029	08/26/13	10/15/13	NA	NA
0.05	EE8-13030	09/12/13	11/01/13	NA	NA
0.05	EE8-13031	09/25/13	11/14/13	NA	NA
0.05	EE8-13032	09/27/13	11/16/13	NA	NA
0.05	EE8-13033	10/02/13	11/21/13	NA	NA
0.05	EE8-13034	10/08/13	11/27/13	NA	NA
0.05	EE8-13035	10/22/13	12/11/13	2190 99 00 189	Dose Certification
0.05	EE8-13036	10/29/13	12/18/13	NA	NA
0.05	EE8-13037	11/13/13	01/02/14	NA	NA
0.05	EE8-13038	11/21/13	01/10/14	NA	NA
0.05	EE8-13039	12/03/13	01/22/14	NA	NA
0.05	EE8-13040	12/10/13	01/29/14	2190 99 00 197	Dose Certification
0.05	EE8-13041	12/17/13	02/05/14	NA	NA
0.05	EE8-14001	01/21/14	03/12/14	NA	NA
0.05	EE8-14002	02/04/14	03/26/14	NA	NA
0.05	EE8-14003	02/10/14	04/01/14	2190 99 00 258	Dose Certification
0.05	EE8-14004	02/28/14	04/19/14	NA	NA
0.05	EE8-14005	03/14/14	05/03/14	NA	NA
0.05	EE8-14006	03/27/14	05/16/14	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

0.05 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.05	EE8-14007	04/08/14	05/28/14	2190 99 00 275	Dose Certification
0.05	EE8-14008	04/30/14	06/19/14	NA	NA
0.05	EE8-14009	05/27/14	07/16/14	NA	NA
0.05	EE8-14010	06/04/14	07/24/14	2190 99 00 287	Dose Certification
0.05	EE8-14011	06/05/14	07/25/14	NA	NA
0.05	EE8-14012	07/15/14	09/03/14	NA	NA
0.05	EE8-14013	07/24/14	09/12/14	NA	NA
0.05	EE8-14014	08/07/14	09/26/14	NA	NA
0.05	EE8-14015	08/11/14	09/30/14	2190 99 00 301	Dose Certification
0.05	EE8-14016	09/16/14	11/05/14	NA	NA
0.05	EE8-14017	09/30/14	11/19/14	NA	NA
0.05	EE8-14018	10/06/14	11/25/14	2190 99 00 312	Dose Certification
0.05	EE8-14019	11/21/14	01/10/15	NA	NA
0.05	EE8-14020	12/08/14	01/27/15	2190 99 00 326	Dose Certification

Diet Preparation Services Support
NCTR Experiment 2190

0.5 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.5	EE1-12001	08/07/12	09/11/12	2190 99 000 16	Dose Certification
0.5	EE1-12002	09/06/12	10/26/12	NA	NA
0.5	EE1-12003	10/03/12	11/22/12	2190 99 000 46	Dose Certification
0.5	EE1-12004	11/08/12	12/28/12	NA	NA
0.5	EE1-12005	11/26/12	01/15/13	NA	NA
0.5	EE1-12006	12/04/12	01/23/13	2190 99 000 55	Dose Certification
0.5	EE1-12007	12/06/12	01/25/13	NA	NA
0.5	EE1-12008	12/13/12	02/01/13	NA	NA
0.5	EE1-12009	12/19/12	02/07/13	NA	NA
0.5	EE1-12010	01/07/13	02/26/13	NA	NA
0.5	EE1-13001	01/17/13	03/08/13	NA	NA
0.5	EE1-13002	01/28/13	03/19/13	NA	NA
0.5	EE1-13003	02/04/13	03/26/13	2190 99 000 69	Dose Certification
0.5	EE1-13004	02/05/13	03/27/13	NA	NA
0.5	EE1-13005	02/20/13	04/11/13	NA	NA
0.5	EE1-13006	02/21/13	04/12/13	NA	NA
0.5	EE1-13007	02/27/13	04/18/13	NA	NA
0.5	EE1-13008	02/28/13	04/19/13	NA	NA
0.5	EE1-13009	03/07/13	04/26/13	NA	NA
0.5	EE1-13010	03/12/13	05/01/13	NA	NA
0.5	EE1-13011	03/18/13	05/07/13	NA	NA
0.5	EE1-13012	04/08/13	05/28/13	2190 99 000 92	Dose Certification
0.5	EE1-13013	04/09/13	05/29/13	NA	NA
0.5	EE1-13014	04/15/13	06/04/13	NA	NA
0.5	EE1-13015	04/30/13	06/19/13	NA	NA
0.5	EE1-13016	05/01/13	06/20/13	NA	NA
0.5	EE1-13017	05/02/13	06/21/13	NA	NA
0.5	EE1-13018	05/07/13	06/26/13	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

0.5 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.5	EE1-13019	05/13/13	07/02/13	NA	NA
0.5	EE1-13020	05/20/13	07/09/13	2190 99 000 98	Dose Certification
0.5	EE1-13021	05/21/13	07/10/13	NA	NA
0.5	EE1-13022	06/04/13	07/24/13	NA	NA
0.5	EE1-13023	06/18/13	08/07/13	NA	NA
0.5	EE1-13024	06/27/13	08/16/13	NA	NA
0.5	EE1-13025	07/10/13	08/29/13	NA	NA
0.5	EE1-13026	07/17/13	09/05/13	NA	NA
0.5	EE1-13027	07/23/13	09/11/13	NA	NA
0.5	EE1-13028	07/30/13	09/18/13	NA	NA
0.5	EE1-13029	08/05/13	09/24/13	2190 99 00 180	Dose Certification
0.5	EE1-13030	08/13/13	10/02/13	NA	NA
0.5	EE1-13031	08/21/13	10/10/13	NA	NA
0.5	EE1-13032	08/26/13	10/15/13	NA	NA
0.5	EE1-13033	09/12/13	11/01/13	NA	NA
0.5	EE1-13034	09/16/13	11/05/13	NA	NA
0.5	EE1-13035	09/25/13	11/14/13	NA	NA
0.5	EE1-13036	10/02/13	11/21/13	NA	NA
0.5	EE1-13037	10/08/13	11/27/13	NA	NA
0.5	EE1-13038	10/22/13	12/11/13	2190 99 00 190	Dose Certification
0.5	EE1-13039	10/23/13	12/12/13	NA	NA
0.5	EE1-13040	10/29/13	12/18/13	NA	NA
0.5	EE1-13041	11/13/13	01/02/14	NA	NA
0.5	EE1-13042	12/03/13	01/22/14	NA	NA
0.5	EE1-13043	12/10/13	01/29/14	2190 99 00 198	Dose Certification
0.5	EE1-13044	12/17/13	02/05/14	NA	NA
0.5	EE1-14001	01/21/14	03/12/14	NA	NA
0.5	EE1-14002	02/04/14	03/26/14	NA	NA

Diet Preparation Services Support
NCTR Experiment 2190

0.5 ug/kg EE₂ in 0.3% CMC, Chemistry Analyses

DOSE LEVEL (ug/kg)	BATCH #	MIX DATE	EXPIRATION DATE	CHEMISTRY SCR #	COMMENTS
0.5	EE1-14003	02/10/14	04/01/14	2190 99 00 259	Dose Certification
0.5	EE1-14004	02/28/14	04/19/14	NA	NA
0.5	EE1-14005	03/21/14	05/10/14	NA	NA
0.5	EE1-14006	04/08/14	05/28/14	2190 99 00 276	Dose Certification
0.5	EE1-14007	04/09/14	05/29/14	NA	NA
0.5	EE1-14008	05/19/14	07/08/14	NA	NA
0.5	EE1-14009	05/29/14	07/18/14	NA	NA
0.5	EE1-14010	06/04/14	07/24/14	2190 99 00 288	Dose Certification
0.5	EE1-14011	06/05/14	07/25/14	NA	NA
0.5	EE1-14012	07/21/14	09/09/14	NA	NA
0.5	EE1-14013	07/24/14	09/12/14	NA	NA
0.5	EE1-14014	08/07/14	09/26/14	NA	NA
0.5	EE1-14015	08/11/14	09/30/14	2190 99 00 302	Dose Certification
0.5	EE1-14016	09/16/14	11/05/14	NA	NA
0.5	EE1-14017	09/30/14	11/19/14	NA	NA
0.5	EE1-14018	10/06/14	11/25/14	2190 99 00 313	Did Not Meet Specifications, Discarded
0.5	EE1-14019	10/16/14	12/05/14	2190 99 00 319	Dose Certification re-mix
0.5	EE1-14020	11/21/14	01/10/15	NA	NA
0.5	EE1-14021	12/08/14	01/27/15	2190 99 00 327	Dose Certification

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APPROVED BY:

QC/Safety	Date:
Diet Preparation, Manager	Date Approved:

**THE NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH
 DIET PREPARATION
 STANDARD OPERATING PROCEDURE**

TITLE: RECEIPT AND STORAGE OF INCOMING FEED SHIPMENTS MANUALLY OR BY USING FORK LIFT.

DIRECTIONS:

Manual System:

1. Upon receipt of feed from the manufacturer, notify the Diet Preparation Management, or responsible personnel.
2. Obtain empty pallets for feed storage. Follow these steps when unloading truck manually:
 - A. Place feed bags on pallets, with the manufacture date or tag visible.
 - B. Stack on pallets, in an overlapping and crosswise manner, a maximum of 75 bags and 27 boxes per pallet.
 - C. Reject torn, wet, moldy or otherwise unacceptable bags.
3. Stack the feed in a manner in which the oldest dated feed is rotated forward and utilized first.
4. After feed bags are stacked and inventory is complete, place placards on all newly stacked pallets with the following information:
 - A. Feed type.
 - B. Lot number.
 - C. Manufacture Date.
 - D. Expiration Date.

Fork Lift System:

1. Upon receipt of feed from the manufacturer, notify the Diet Preparation Management, or responsible personnel.
2. Make sure fork lift is properly charged before attempting to unload feed, if fork lift is not charged, use pallet jack instead, it is very important the fork lift does not run out of charge while inside the feed truck trailer.
3. Once the feed truck is safely backed up to loading dock with wheels chocked and the fork lift slip is in place, use the fork lift to retrieve pallets of feed from the truck and transfer them to the feed storage room (5D-112) and place on shelving system. Feed pallets maybe placed in room 5D-102 temporarily for sampling or organizational purposes.
4. After feed pallets are neatly stacked and inventory is complete, notify QC Safety so they may place placards on all newly stacked pallets with a minimum of the following information:
 - A. Feed type.
 - B. Lot number.
 - C. Expiration Date.
 - D. Additional information or comments pertinent to the shipment.
5. QC/Safety will complete a “Feed Inventory Record” for each lot of feed received.

Document History

rev	Change	Reason
12	Reformat	Clarity, new SOP requirements

APPROVED BY:

QC/Safety Coordinator	Date:
Diet Preparation Manager	Date Approved:

**THE NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH
 DIET PREPARATION
 STANDARD OPERATING PROCEDURE**

TITLE: PREPARATION OF BPA / EE₂ SOLUTIONS/SUSPENSIONS IN 0.3% CARBOXYMETHYL CELLULOSE (CMC) VEHICLE

DIRECTIONS: The DBT Chemistry Support Program will transfer the test articles and stock solutions to Diet Preparation, where all records will be recorded and maintained.

NOTE: When mixing BPA or EE₂, the following personal protective clothing will be worn: Surgical gloves, face mask, safety shoes, and safety glasses.

NOTE: Prior to formulating, all glassware, septa, caps, and vials will be wrapped in aluminum foil and autoclaved for ~40 minutes at 250°F. Used glassware will be washed before autoclaving.

0.3% AND 0.6% CARBOXYMETHYL CELLULOSE PREPARATION INSTRUCTIONS:

1. Obtain enough of Nano-DI water from Building 26A-130, the Chemistry lab and autoclave it for ~40 minutes at 250°F and let cool. CMC mixes best when water is warm.
2. Measure the required amount of CMC (carboxymethyl cellulose) solid into an appropriate sized container.
3. Measure the required amount of Nano-DI in a properly labeled mixing container.
4. Place the container containing the Nano-DI under the paddle mixer and stabilize it. Turn the mixer on and adjust the speed of the paddle to create a vortex, try not to let it splash.

5. While the Nano-DI is stirring, gently sift the CMC solid into it until it is depleted. Stir until the CMC is completely dispersed. Stir both 0.3% and 0.6% until it is completely dissolved, this may take up to 2 to 3 hours, record start and stop times. Keep aluminum foil over the top of the mixing container.
6. Store at room temperature.
7. CMC will be prepared as needed, but preferably fresh for new batches if possible.

BPA / EE₂ PREPARATION INSTRUCTIONS:

NOTE: The three high BPA dose levels will be mixed by adding BPA solid directly to the vehicle with special instructions. The three lower BPA dose levels and the two EE₂ dose levels will be mixed by serial dilutions using certified stock solutions that are provided to Diet Preparation personnel by the DBT Chemistry Support Program.

Example: 5,000 µg BPA/mL preparation instructions, 3000 ml batch size:

1. Weigh 15.00 grams of BPA solid into a clean weighing container.
2. Weigh ~2000.00 grams of 0.3% CMC solution into an appropriate sized glass beaker.
3. Slowly add the required amount of BPA to the 0.3% CMC solution in the mixing container; carefully swirl the beaker by hand and force the BPA solid into the solution using a stainless steel spatula, so that the BPA solid becomes completely embedded in the 0.3% CMC solution. Sonicate while doing this procedure. Keep sonicating until embedding is complete.
4. Add more 0.3% CMC solution to complete the required batch size (~985 grams). Add stir bar and stir overnight at the highest speed possible that will spin without the magnet losing its balance. Record start time, stop time will not be recorded since all suspensions will be continuously stirring.

NOTE:

The BPA solid should be fully embedded in the 0.3% CMC solution before the overnight stirring step. If there is BPA solid floating, force it down into the solution using a stainless steel spatula.

5. Follow the procedure above to prepare the 50,000, 5000, and 500 μg BPA/mL dose suspension, by using the chart below for the required amounts as an example. (Note, amounts may change if larger or smaller quantities are needed.)
6. When transferring the bulk suspensions to the dosing vials (containing a stir bar), use the Masterflex pump system. First, thread the Teflon tubing through middle of the pump and clamp it down, make sure it is in line with the guides so there is no kinking. Next, take the Teflon tube and place it in the mixing container/suspension and take hold of the opposite end which is used to fill the individual dosing vials. Prime the tube by pushing the priming button and pump the suspension back into the original mixing container. Once the tube is primed, then you may start pumping the suspension into the individual dosing vials. Use the "prime" or the "start/stop" button to properly fill the dosing vials. When the dosing vial is full (shoulder level), cap it and place it on a stir plate. Stir at the highest speed possible that will spin without the magnet losing its balance.

BPA - 50, 5, 0.5 $\mu\text{g}/\text{mL}$ and EE₂ - 0.1, 0.01 solution preparation instructions

NOTE: The DBT Chemistry Support Program will provide Diet Preparation with a certified BPA and EE₂ stock solution. Diet Preparation has an Excel spreadsheet, (see below) that will automatically adjust all dilution amounts by plugging in the stock solutions' final concentrations and calculate the amounts of stock solution and 0.6% CMC to be mixed. A print out example of the Excel spreadsheet is in attachment. New stock solutions will be prepared upon depletion or expiration date.

1. By consulting the Excel spreadsheet, add the required amounts of BPA or EE₂ stock solution to an appropriate sized glass beaker.
2. Add the required amount of Nano-DI water and/or 0.6% CMC.
3. Add a stir bar to the mixing container and place solution on a magnetic stir plate and stir over night. Record start and stop times.

COLLECTION OF SAMPLES FOR DOSE CERTIFICATION:

Suspensions

1. Place a 20 mL glass scintillation vial on the scale and tare it.
2. Take a sample of the dose, using a positive displacement apparatus. Make sure the pipet is set at 500 μL and carefully draw up the suspension while the mixture is stirring. (If possible, it is best to take sample in the middle of the mixing container just above the spinning stir bar.)
3. Weigh the scintillation vial. Record the weight of the sample placed in the vial on the SCR sheet.

4. Repeat the above procedure twice, for a total of three samples per dose group.
5. Fill out SCR sheet and transfer samples to the DBT Chemistry Support Program for analyses
6. Upon analyses clearance, the dosing vials will be transferred to the animal care facility.

Solutions

1. Take a sample of each solution while stirring using a glass pipet and dispense into a glass scintillation vial. Fill each vial with ~20 ml
2. Repeat the above procedure twice, for a total of three samples per dose group.
3. Fill out SCR sheet and transfer samples to the DBT Chemistry Support Program for analyses.
4. Upon analyses clearance, the dosing vials will be transferred to the animal care facility.

Document History

Rev. #	Change	Reason
00	Original SOP	New experiment, added changes

Attachment 1

Weighing requirements for 1000 gram batches of BPA and EE₂ for E2190.

DILUTIONS

Mixture Number	Treatment	Dose Level µg/kg	Dose Concentration µg/ml	BPA Stock in Nano-DI (g)	Nano-DI (g)	0.6% CMC (g)	0.3% CMC (g)
1	Vehicle	0	0	N/A	N/A	N/A	1000.00
2	BPA	2.5	0.5	5.00	495.00	500.00	N/A
3	BPA	25	5	50.00	450.00	500.00	N/A
4	BPA	250	50	500.00	0.00	500.00	N/A

SUSPENSIONS

Mixture Number	Treatment	Dose Level µg/kg	Dose Concentration µg/ml	BPA Solid (g)	Nano-DI (g)	0.6% CMC (g)	0.3% CMC (g)
5	BPA	2,500	500	0.50	N/A	N/A	999.50
6	BPA	25,000	5,000	5.00	N/A	N/A	995.00
2	BPA	250,000	50,000	50.00	N/A	N/A	950.00

Note: Mixture 2 is only used on Experiment #: 2191

EE₂ DILUTIONS

Mixture Number	Treatment	Dose Level µg/kg	Dose Concentration µg/ml	EE ₂ Stock in Nano-DI (g)	Nano-DI (g)	0.6% CMC (g)	0.3% CMC (g)
7	EE2	0.05	0.01	2.50	497.50	500.00	N/A
8	EE2	0.5	0.1	25.00	475.00	500.00	N/A

	Target Concentration µg/ml	Actual Concentration µg/ml	Batch Size
BPA Stock Concentration	104	100.00	1000
EE2 Stock Concentration	4	4.00	

APPROVED BY:

QC/Safety	Date:
Diet Preparation, Manager	Date Approved:

**THE NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH
 DIET PREPARATION
 STANDARD OPERATING PROCEDURE**

TITLE: QUALITY CONTROL ROUTINE CHEMICAL AND MICROBIOLOGICAL
 FEED SAMPLING

DIRECTIONS:

Commercial Manufactured Feed Received

Diet Preparation receives a variety of feeds; NIH-41 Irradiated Pellets, Jumbo Monkey Chow, Primate Banana Pellets, and other certain specialty diets, usually ordered by Study Directors.

NOTE: Take a microbiological samples first if the same packaging container is going to be sampled for both chemistry and microbiology.

NCTR Standard Irradiated Diet

Chemical Sampling

Frequency

1. Sample each lot and insure sample is analyzed for Organophosphates and chlorinated insecticides. (Routine Assay).

Routine Sampling Method of Each Lot Number

1. Randomly select bags to be sampled. Number of bags sampled is equal to the square root of the total number of bags received per lot.
2. Cut open the center of each bag. Remove a sample amount approximately 100 grams and place in a labeled sample container.

SOP # 1006.09
REPLACES SOP# 1006.08
EFFECTIVE DATE: 2-24-12
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3. Sample label should indicate feed type, lot number, sample number, and sample date.
4. Tape bags shut and complete SCR. Refer to SOP #1312

Microbiological Sampling

Frequency

1. Sample each lot received.

Routine Sampling Method of Each Lot Number

1. Randomly select a bag or box to be sampled.
2. Lightly spray with 5% bleach solution, cut open the bag or box with a 6 inch incision towards top of the bag. Sample feed and place in a labeled sample specimen cup.
3. Label sample cup indicating feed type, lot number, sample number, and sample date.
4. Tape bag and box shut and complete SCR. Refer to SOP #1312.

Document History

rev	Change	Reason
09	Reformat, revise	Clarity, new SOP requirements.

APPROVED BY:

QC/Safety	Date:
Diet Preparation, Manager	Date Approved:

**NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH
 DIET PREPARATION
 STANDARD OPERATING PROCEDURE**

TITLE: SAMPLE COLLECTION RECORD (SCR)

DIRECTIONS:

1. Record required information on a SCR record
 - A. Initials of person completing the SCR sheet.
 - B. Sample submission date.
 - C. Sample collection date.
 - D. Sample collection location.
 - E. Sample type (feed, surface swabs, air, water, etc.).
 - F. Sample sub-type (autoclaved, irradiated, shipment lot, processed, other).
 - G. Check "Chemistry" or "Microbiology" on SCR sheet.
 - H. Fill in appropriate information in the lower sections of the SCR.
2. After completion of the SCR record information, attach identical numerical label to sample.
3. Record the SCR number on appropriate Diet Preparation record.
4. After recording the SCR number, transport sample(s) and SCR record(s) to the appropriate NCTR department.

Document History

rev	Change	Reason
02	Reformat, revise	Clarity, new SOP requirements.