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|---|------------------|---|---|--|---------------|--------------|--------------|----------|--------------|
|  <p style="text-align: center;">United States Environmental Protection Agency Washington, DC 20460</p> <p style="text-align: center;">Interagency Agreement/ Amendment</p> <p style="text-align: center;">Part 1 - General Information</p> | | 1. EPA IA Identification Number RW-61-92317001 - 0 | | 2. Funding Location by Region EPA HQ | | | | | |
| | | 3. Other Agency IA ID Number (if known) CPSC-I-10-0009 | | 4. Awarding Office ASSC East | | | | | |
| | | 5. Type of Action New | | | | | | | |
| 6. Name and Address of EPA Organization US Environmental Protection Agency ORD 109 TW Alexander Drive Research Triangle Park NC 27711 | | | 7. Name and Address of Other Agency Consumer Product Safety Commission 4330 East-West Highway, Rm. 502 Bethesda, MD 20814 | | | | | | |
| 8. DUNS: 029128894 | | 9. BETC: COLL | | 10. DUNS: 069287522 | | | | | |
| 11. BETC: DISB | | | | | | | | | |
| 12. Project Title and Description Exposure Assessment of Silver Nanoparticles in Select Children's Consumer Products To evaluate children's potential exposures to nanosilver from consumer products marketed exclusively for children using scientifically credible protocols | | | | | | | | | |
| 13. EPA Project Officer (Name, Address, Telephone Number) Nicole Tulve 109 TW Alexander Drive (MD-E205-04) Research Triangle Park, NC 20460 919-541-1077 E-Mail: tulve.nicolle@epa.gov FAX: 919-541-0905 | | | 14. Other Agency Project Officer (Name, Address, Telephone Number) Trey A Thomas 4330 East-West Highway, Rm. 502 Bethesda, MD 20814 301-504-7130 E-Mail: tlthomas@cpsc.gov FAX: | | | | | | |
| 15. Project Period: 04/26/2010 to 10/26/2011 | | | IA Specialist: Lenore Connell 202-564-5343 | | | | | | |
| 16. Scope of Work (See Attachment) See attached Scope of Work | | | | | | | | | |
| 17. Employee/Tax ID No. 520852695 | | 18. CAGE No: 347A4 | | 19. ALC: 68-01-0727 | | | | | |
| 20. Statutory Authority for Transfer of Funds and Interagency Agreement Toxic Substances Control Act, Sec. 10 | | | | 21. Other Agency Type Federal Agency | | | | | |
| 22. Revise Reimbursable Funds and Direct Fund Cites (only complete if applicable) | | | | | | | | | |
| | Previous Funding | | This Action | | Amended Total | | | | |
| Revise Reimbursable (in-house) | | | | | 0 | | | | |
| Direct Fund Cite (contractor) | | | | | 0 | | | | |
| Total | | | | | 0 | | | | |
| 23. Funds | | | | | | | | | |
| | Previous Amount | | Amount This Action | | Total Amount | | | | |
| 23. EPA Amount | | | | | \$0 | | | | |
| 24. EPA In-Kind Amount | | | \$87,320 | | \$87,320 | | | | |
| 25. Other Agency Amount | | | \$100,000 | | \$100,000 | | | | |
| 26. Other Agency In-Kind Amount | | | | | \$0 | | | | |
| 27. Total Project Cost | | | \$187,320 | | \$187,320 | | | | |
| 28. Fiscal Information | | | | | | | | | |
| Treas. Symbol | DCN | FY | Appropriation | Budget Org | PRC | Object Class | Site/Project | Cost Org | Ob/Da-Ob Amt |
| 680/10107 | | 1011 | CR | 26U2X34 | 404FB2APV | | | | 90,850 |
| 680/10107 | | 1011 | CR | 26U2Z34 | 404FB2APV | | | | 9,150 |
| | | | | | | | | | 100,000 |

| Part II - Approved Budget | | | | EPA IAG Identification Number |
|---|---|----------------------------|---|---|
| | | | | RW-61-92317001 - 0 |
| 29. Budget Categories | Itemization of All Previous Actions | Itemization of This Action | In-Kind Itemization of This Action | Itemization of Total Project Cost to Date |
| (a) Personnel | | | \$80,000 | \$80,000 |
| (b) Fringe Benefits | | | | \$0 |
| (c) Travel | | | | \$0 |
| (d) Equipment | | | | \$0 |
| (e) Supplies | | | | \$0 |
| (f) Procurement / Assistance | | \$90,850 | | \$90,850 |
| (g) Construction | | | | \$0 |
| (h) Other | | | | \$0 |
| (i) Total Direct Charges | \$0 | \$90,850 | \$80,000 | \$170,850 |
| (j) Indirect Costs: | \$0 | \$9,150 | \$7,320 | \$16,470 |
| Charged - Amount Rate: % Base: \$ Not Charged: Funds-In: Not charged by EPA Amount \$ Funds-Out: Not charged by Other Agency Estimate by other Agency Amount \$ Exempt (Working Capital Fund, Shared Services, etc.) | | | | |
| (k) Total (EPA Share 46.52 %) (Other Agency Share 53.38 %) | \$0 | \$100,000 | \$87,320 | \$187,320 |
| 30. How was the IDC Base calculated? | | | | |
| 31. Is equipment authorized to be furnished by EPA or leased, purchased, or rented with EPA funds? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (Identify all equipment costing \$1,000 or more) | | | | |
| 32. Are any of these funds being used on extramural agreements? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| Type of Extramural Agreement <input type="checkbox"/> Contract | | | | |
| Contractor/Recipient Name (if known) | Total Extramural Amount Under This Project | | Percent Funded by EPA (if known) | |
| TBD | 90850 | | 0 | |
| Total \$ 90,850.00 | | | | |
| Part III - Funding Methods and Billing Instructions | | | | |
| 33. (Note: EPA Agency Location Code (ALC) - 68010727) | | | | |
| Disbursement Agreement | Request for repayment of actual costs must be itemized on SF 1080 and submitted to the Financial Management Office, Cincinnati, OH 45268-7002. | | | |
| Repayment | <input type="checkbox"/> Monthly <input type="checkbox"/> Quarterly <input type="checkbox"/> Upon Completion of Work | | | |
| Advance | Only available for use by Federal agencies on working capital fund or with appropriate justification of need for this type of payment method. Unexpended funds at completion of work will be returned to EPA. Quarterly cost reports will be forwarded to the Financial Management Center, EPA, Cincinnati, OH 45268-7002. | | | |
| Allocation Transfer-Out | Used to transfer obligational authority or transfer of function between Federal agencies. Must receive prior approval by the Office of Comptroller, Budget Division, Budget Formulation and Control Branch, EPA Hqtrs. Forward appropriate reports to the Financial Reports and Analysis Branch, Financial Management Division, PM-226F, EPA, Washington, DC 20460. | | | |
| 34. Reimbursement Agreement | <input type="checkbox"/> Repayment <input type="checkbox"/> Advance <input type="checkbox"/> Allocation Transfer-In | | | |
| Other Agency's Billing Address (include ALC or Station Symbol Number) | | | Other Agency's Billing Instructions and Frequency | |

| | | |
|---|--|--|
| Part IV - Acceptance Conditions | | EPA Identification Number RW-61-92317001 - 0 |
| 35. Terms and Conditions (See attached terms and conditions, Attachment B) See attached | | |
| Part V - Offer and Acceptance | | |
| <p>Note: A) For Fund-out actions, the agreement/amendment must be signed by the other agency official in duplicate and one original returned to the Grants and IA Management Division for Headquarters agreements or to the appropriate EPA Regional IA administration office within 3 calendar weeks after receipt or within any extension of time that may be granted by EPA. The agreement/amendment must be forwarded to the address cited in item 29 after acceptance signature.</p> <p>Failure to return the properly executed document within the prescribed time may result in the withdrawal of offer by EPA. Any change to the agreement/amendment by the other agency after the document is signed by the EPA Award Official which the Award Official determines to materially alter the agreement/amendment, shall void the agreement/amendment.</p> <p>B) For Funds-In actions, the other agency will initiate the action and forward two original agreements/amendments to the appropriate EPA program office for signature. The agreements/amendments will then be forwarded to the appropriate EPA IA administration office for signature on behalf of the EPA. EPA will return one original copy after acceptance returned to the other agency after acceptance.</p> | | |
| EPA IA Administration Office (for administrative assistance) | | EPA Program Office (for technical assistance) |
| 36. Organization/Address <div style="text-align: center;"> Environmental Protection Agency OGD, FISB, GIAMD 1200 Pennsylvania Avenue, NW (3903R) Washington, DC 20460 </div> | | 37. Organization/Address <div style="text-align: center;"> US Environmental Protection Agency ORD - Office of Research and Development 109 TW Alexander Drive (MD-E205-04) Research Triangle Park, NC 20460 </div> |
| Award Official on Behalf of the Environment Protection Agency | | |
| 38. Signature <i>Andrea Waugh-Williams</i> | Typed Name and Title Andrea Waugh-Williams Branch Chief | Date 4/29/10 |
| Authorizing Official on Behalf of the Other Agency | | |
| 39. Signature <i>Donna Hutton</i> | Typed Name and Title Please sign and return Donna Hutton, Contracting Officer | Date 5/12/10 |

IA Terms and Conditions

1. Should disagreement arise on the interpretation of the provisions of this agreement, the dispute shall be resolved pursuant to the Business Rules for Intragovernmental Transactions delineated in the Treasury Financial Manual, Vol. 1, Bulletin 2007-03, Section VII (Resolving Intragovernmental Disputes and Major Differences).
2. If the Consumer Product Safety Commission cancels the order, the Environmental Protection Agency (EPA) is authorized to collect costs incurred prior to cancellation of the order plus termination costs, up to the total payment amount provided for under the agreement.

CPSC-I-10-0009
INTERAGENCY AGREEMENT (IA)
BETWEEN THE
U.S. CONSUMER PRODUCT SAFETY COMMISSION
AND THE
U.S. ENVIRONMENTAL PROTECTION AGENCY

I. INTRODUCTION

The U.S. Consumer Product Safety Commission (CPSC) and the U.S. Environmental Protection Agency (EPA) hereby agree that the EPA, subject to the terms and conditions herein, shall conduct preliminary research to improve our understanding of children's potential exposures to nanosilver that may be released from children's consumer products. The focus of the research under this agreement will be to develop tools to categorize and prioritize exposure potential for select children's products containing nanosilver and to develop approaches and protocols to estimate and predict children's potential exposure pathways for selected product categories. The protocols and tools may be evaluated in pilot tests with selected products.

II. TITLE

Exposure Assessment of Silver Nanoparticles in Select Children's Consumer Products

III. BACKGROUND

Nano-scale silver ("nanosilver") is being used in consumer products, including room sprays; laundry detergents; wall paint; textiles, including shirts, pants, socks, and underwear; and products intended for use by children, such as baby bottles, teething rings, and plush toys. Health effects associated with silver vary with the chemical form (metallic, salt) and the route of exposure (ingestion, inhalation, and dermal contact). Understanding and, where necessary, minimizing potential exposures to consumers from use of nanosilver-enabled products is critical for promoting public health; however, the mechanisms and forms of silver released from products containing nanosilver are poorly understood.

Available studies on nanosilver indicate exposure potential from some nanosilver-enabled textiles; however, differing methodologies were used and results obtained were highly variable, precluding generalization of these studies to other consumer products. In the proposed research, existing protocols will be modified or new protocols developed to evaluate children's potential exposures to nanosilver in children's consumer products (e.g., pacifier, plush toy).

The major output of the CPSC-EPA-NIOSH collaboration, of which this project is a part, will be an increased understanding of the potential exposures from the use of nanosilver-enabled consumer products by the public and workers, which is an area of high mutual interest not only to CPSC and EPA, but to the national and international scientific community. Results of this study, which will focus on young children's potential exposure pathways, will provide a foundation for future work to evaluate levels of exposure to nanosilver from consumer products via relevant pathways.

IV. PURPOSE AND OBJECTIVES

The purpose of this research effort is to evaluate children's potential exposures to nanosilver from consumer products marketed exclusively for children (e.g., pacifiers, plush toys) using scientifically credible protocols. EPA will test the broad hypothesis that nanosilver is released from children's consumer products under conditions of intended use, making it available for potential exposure of children.

V. STATEMENT OF WORK

To address the objectives of the research effort, EPA will conduct the following activities:

1. Conduct a state-of-the-science assessment of currently available data on children's exposures to nanosilver in children's consumer products, available approaches and tools for prioritizing potential exposures for different products and exposure scenarios, and data on routes and pathways of exposure.
2. Develop approaches and tools for prioritizing exposure potential, identifying exposure scenarios, predicting important routes and pathways, and predicting exposure pathways using screening level models.
3. Select two or more children's consumer products that claim to contain nanosilver and determine whether the material in the consumer product is nanosilver.
4. Determine the form of silver (soluble, metallic) that is released from the product under conditions of intended use ~ nanoform or large agglomerates; and
5. Identify pathways of potential exposure (ingestion, dermal, inhalation routes) from the intended use of these products.

Available databases will be used to identify potential children's consumer products for study, and develop a focused list of consumer products for evaluation (activity #1). For those products that contain nanosilver, the chemical form (Ag^0 , Ag^+) and physicochemical properties (morphology, size, chemistry) of the material released from the products during simulated-use activities will be

evaluated using appropriate analytical techniques). Finally, for those products that release nanosilver, probable pathways of exposure will be identified.

Products of this research will include information applicable to CPSC, EPA, other Federal agencies (e.g., NIOSH), and the broader environmental health and safety (EHS) community:

1. Protocols for an initial evaluation of engineered nanomaterial release from children's consumer products;
2. A framework for developing exposure pathway analyses for select nano-enabled children's consumer products; and
3. Development of a better understanding of pertinent human exposure factors for potential nanomaterial-induced health outcomes in the non-occupational and occupational environments.

VI. EPA FURNISHED MATERIALS/EQUIPMENT

EPA agrees to furnish all necessary personnel, equipment, materials, services, and facilities to complete the objectives listed in Section IV.

VII. CONFIDENTIALITY REQUIREMENTS

Results from this IA will not be distributed or released in any form until agreed upon by CPSC and EPA.

VIII. REPORTING REQUIREMENTS

EPA will provide an interim report mid-way through the time period of the IA and a final report at the completion of the IA.

IX. PERIOD OF PERFORMANCE

The period of performance shall begin on the effective date and shall extend 18 months. This agreement may be modified or cancelled by mutual consent of CPSC and EPA.

X. DELIVERY OR PERFORMANCE

All deliverables required under the terms and conditions of this IA shall be provided to CPSC. The activities planned under this agreement are expressly subject to the availability of funds and other necessary resources of the parties. EPA neither commits nor makes any obligation of funds pursuant to this agreement. The following items shall be performed in accordance with the following schedule:

Month 1 – Compile information from relevant sources to assess the currently available data, tools, approaches, methods, or protocols for understanding young children's potential exposures to nanosilver in consumer products.

Month 3 – Identify select children's consumer products for research effort.

Month 4 – Obtain products for this activity.

Month 8 – Complete sample preparation, experimental study design, and protocol development.

*Month 10 – Draft interim report at the end of the month.**

Month 15 – Draft final report.

Month 18 – Final report.

The period of performance for this agreement is 18 months from award.

**An interim report summarizing all activities for FY10 will be submitted by September 30, 2010.*

XI. DISAGREEMENTS

In the event that the CPSC and EPA have a disagreement arising under this Interagency Agreement, then the parties shall cooperatively seek to resolve the disagreement by themselves. If the disagreement cannot be resolved between them, then the parties agree to seek the assistance of a third party in resolving the disagreement.

XII. LIAISON OFFICERS

- a. EPA PROJECT OFFICER
Nicolle S. Tulve, Ph.D.
US EPA
Office of Research and Development
National Exposure Research Laboratory
109 TW Alexander Drive, MD-E205-04
Research Triangle Park, NC 27711
Phone: (919)541-1077
tulve.nicolle@epa.gov

- b. CPSC PROJECT OFFICER
Treye A. Thomas, Ph.D.
U.S. Consumer Product Safety Commission
Office of Hazard Identification and Reduction
4330 East West Highway
Bethesda, MD 20814
Phone: (301)504-7738
tthomas@cpsc.gov

c. CPSC FINANCIAL OFFICER
Ms. Deborah Peebles Hodge
U.S. Consumer Product Safety Commission
4330 East West Highway
Bethesda, MD 20814
Phone: (301)504-7130
dhodge@cpsc.gov

XIII. COST AND TRANSFER OF FUNDS

The estimated cost is \$100K, provided with CPSC FY2010 funds.

EPA Administrative Point of Contact: Daryl Mims
Email: mims.daryl@epa.gov
Telephone: (919)541-3127

XIV. FUNDING AND ACCOUNTING DATA

The transfer of funds shall be from CPSC to EPA through the On-Line Payment Collection (OPAC) system using the following accounting data:

Transfer From:
CPSC

Taxpayer ID Number (TIN): 520978750
Agency Location Code (ALC): 61-00-0001
DUNS 069287522
US Treasury Code: 61-0100
ACCT. DATA: 0100A10DPS 2010 2370400000 EXHR004000 25310
AMOUNT: \$100,000.00

Transfer To:
EPA

Taxpayer ID Number (TIN): 520852695
Agency Location Code (ALC): 68011499
DUNS 029128894
US Treasury Code: 3875F

XV. AUTHORITIES

FOR CPSC:

Section 27(g) of the Consumer Product Safety Act, (15 U.S.C. 2076(g)).

FOR EPA:

Toxic Substances Control Act, Section 10(d) which authorizes the Administrator of EPA to be responsible for research aimed at the development, in cooperation with other Federal agencies, or monitoring techniques which may be used in the detection of toxic chemical substances.

APPROVED AND ACCEPTED FOR
THE U.S. CONSUMER PRODUCT
SAFETY COMMISSION

BY: _____
SIGNATURE: *[Signature]*
TITLE: Contracting Officer
DATE: 5/12/10

APPROVED AND ACCEPTED
FOR THE ENVIRONMENTAL
PROTECTION AGENCY

BY: _____
SIGNATURE: *[Signature]*
TITLE: Sandra L. Waugh-Williams, Chief
Fellowships, IAGs and SEEs Branch
Grants and IAG Management Division
DATE: 7/29/10