DEPARTMENT OF ECOLOGY
State of Washington

Product Testing Database
Standard Operating Procedure
For Data Entry and
Data Entry Quality Assurance

HWTR PTP002, Version 2.0

Purpose of this document

The Washington State Department of Ecology develops Standard Operating Procedures (SOPs) to document agency practices related to sampling, field and laboratory analysis, and other aspects of the agency's technical operations. Most of the links in this document are only accessible by internal Ecology employees.

Publication Information

This SOP is available on the Department of Ecology's website at https://fortress.wa.gov/ecy/publications/SummaryPages/1904015.html.

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Date – 02/28/2019

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HWTR PTP002

APPROVED: 05/02/2019

Please note that the Washington State Department of Ecology's Standard Operating Procedures (SOPs) are adapted from published methods, or developed by in-house technical and administrative experts. Their primary purpose is for internal Ecology use, although sampling and administrative SOPs may have a wider utility. Our SOPs do not supplant official published methods. Distribution of these SOPs does not constitute an endorsement of a particular procedure or method.

Any reference to specific equipment, manufacturer, or supplies is for descriptive purposes only and does not constitute an endorsement of a particular product or service by the author or by the Department of Ecology.

Although Ecology follows the SOP in most instances, there may be instances in which the Ecology uses an alternative methodology, procedure, or process.

SOP Revision History

Revision Date	Revision History	Summary of changes	Sections	Reviser(s)
08/16/2016	PTP002 1.0	New	All	C. Wiseman, K. Inch, J. Rushing, S. VanBergen
02/15/2017	PTP002 1.0	New	All	S. Iwenofu
Jan - May 2019	PTP002 2.0	• Removed HWTR approval page Revised and renumbered sections (removed previous Appendix C) • Included enhancements and business rule updates • Added instructions for online purchases • Provided instructions for the Data Entry QA tool • Included instructions for Target Product Age Determination (new Appendix C) • Additional minor edits Approved Version 2.0	All	C. Wiseman, M. Smith, K. Trumbull, S. VanBergen, P. Tuladhar, K. Nelson, A. Kaza

1.0   **Purpose and Scope**

1.1   This document serves as the Product Testing (PT) Standard Operating Procedure (SOP) for Data Entry and Data Entry QC for the Product Testing Database.

1.2   The PT Program conducts studies on products to assess compliance with existing chemicals regulations and to investigate priority or emerging chemicals of concerns. PT study reports and data may be used to support the development of new legislation or rules.

1.3   This SOP includes methods for training new database users, purchase event documentation, product documentation, data uploading, and quality assurance checks for data entry.

2.0   **Applicability**

2.1   This procedure describes the standardized way in which the PT Program documents: product-specific advertising, general product information, product business information, product/component photographs, sample collection/preparation, and data entry quality assurance.

2.2   This document provides instruction for product data entry and general database use. The requirements of this SOP will be followed by all staff entering project information into the PT Database (PTDB).

3.0   **Definitions**

3.1   **Brick or Brick Code** defines categories of similar products and is a segment in the Global Product Classification (GPC) also referred to as GS1 Global Product Classification. The foundation of the GPC is referred to as a "Brick."

3.2   **Children's Safe Products Act (CSPA)** limits the use of lead, cadmium, phthalates, and some flame retardants in children's products. It also requires manufacturers to report if their products contain chemicals of high concern to children.

3.3   **Component** an individual piece or part of a product containing different colors, functions, and/or material (i.e., a sweater may be comprised of several components such as, the woven fabric, trim fabric and buttons).

3.4   **Component Sample** individual piece or part of a product that are selected to become samples or have prescreening requirements. Components cataloged in the PTDB receive an alphanumeric identification that is used as the Component sample identification number referred to as a (Component ID) (e.g. Store/Location Name - Number of Times Store has been sampled from - Product # - Component # (e.g. TG-1-1-1). This alphanumeric tracking ID can be programed into the prescreening equipment and follows the sample to the laboratory.

3.5   **Composite Sample** a sample prepared by physically combining two or more samples having some specific relationship and processed to ensure homogeneity (USEPA, 1997).

3.6 **Duplicate Sample** two samples taken from and representative of the same population, and carried through the steps of the sampling and analytical procedures in an identical manner. Duplicate samples are used to assess variability of all method activities including sampling and analysis (USEPA, 1997).

3.7 **EAP** the Environmental Assessment Program.

3.8 **EDD** is an Electronic Data Deliverable. EDDs contain quantitative results obtained by analytical labs, formatted to conform to a standard template.

3.9 **Financial Services Purchasing Officer** the agency's designated purchasing officer.

3.10 **Global Data Synchronization Network (GDSN)** an international system that ensures that products are classified correctly and uniformly. The GDSN uses the GPC.

3.11 **Global Product Classification (GPC) / (GS1)** a system that gives buyers and sellers everywhere in the world a common language for grouping products. GS1 is the non-profit organization that maintains the global standards for business communication.

3.12 **HWTR** the Hazardous Waste and Toxic Reduction Program.

3.13 **Hazardous Waste and Toxic Reduction Purchasing Coordinator (HWTR PC)** the Hazardous Waste Program's designated purchasing coordinator places orders for "State contracted" supplies and products. (Currently administered by the HWTR receptionist).

3.14 **Packaging** a container surrounding a product that provides a means of marketing, protecting, or handling a product. This includes a unit package (packaging around one product), an intermediate package, and a shipping container. It also includes unsealed receptacles such as carrying cases, crates, cups, pails, rigid foil and other trays, wrappers and wrapping films, bags, and tubs.

3.15 **Product Testing Preparation Staff (PT Prep Staff)** includes any individual not the Project Manager or Sample Preparation Lead, involved in study tasks including, but not limited to purchasing, organizing incoming products, logging in, deconstructing products, processing samples, database reviewing, and disposing of obsolete samples. Personnel serving in this capacity are often Interns or E-techs that are hired and trained specifically to perform these duties; staff may also include Clients, Supervisors, Enforcement Leads, or any other "drop-in" Ecology staff member.

3.16 **Product Preparation Room OL-21 (PT Prep. Room) designated uses:** Secure sample storage, tool cleaning, sample deconstruction, X Ray Fluorescence (XRF) and Fourier Transform Infrared Spectroscopy (FTIR) sample prescreening, sample preparation and documentation.

3.17 **Product Testing Database (PTDB)** the Washington State Department of Ecology's Product Testing Database.

3.18   **Product Testing Database Coordinator** ensures that the product testing database and associated QA tools are well maintained and enhancements are made through a transparent and efficient process. The database will be maintained in order to serve both the scientific and public information needs. Serves as lead on enhancements and changes to the product testing databases. Serves as Point of Contact between RTT/EAP and ITSO on database matters and changes. Consults with clients, product managers, sample prep lead, and other stakeholders on database enhancements.

3.19   **Project Manager (PM)** the subject matter expert for all study-specific activities described in a Quality Assurance Project Plan. The PM is the point of contact for questions concerning study-specific objectives, specifications, deliverables, timelines, and tasks.

3.20   **Quality Assurance (QA)** a set of activities designed to establish and document the reliability and usability of measurement data.

3.21   **Quality Assurance Project Plan (QAPP)** a document that describes the objectives of a study and the processes and activities necessary to develop data that will support those objectives.

3.22   **RCW** the Revised Code of Washington.

3.23   **RN Number** a Registered Identification Number issued by the Federal Trades Commission to U.S. businesses that manufacture, import, distribute, or sell products covered by the Textile, Wool, and Fur Acts. Businesses can use this number on product labels in lieu of the company.
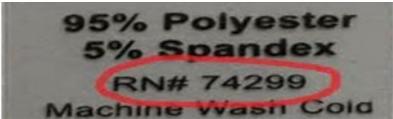
3.24   **Room Safety Coordinator** the Product Testing employee responsible for the safety aspects of the room including equipment maintenance and safe equipment processing procedures. The room safety coordinator's role is currently managed by the sample prep lead.

3.25   **Safety Data Sheet (SDS)** a document that lists information relating to occupational safety and health for the use of various substances and products.

3.26   **Sample Prep Lead (SPL)** coordinates schedules and activities conducted in the PT Prep Room. Supports PM's as necessary in order to maintain steady progress, QA/QC requirements, enforcement requirements such as chain of custody and maintains process consistency and replicability.

3.27   **UPC Code** the Universal Product Code, an 8, 12, 13 or 14 digit code found at the bottom of a scan code on product packaging. The UPC includes all numbers shown with the bar code (including the first and last).

3.28   **WAC** the Washington Administrative Code.

4.0   **Personnel Qualifications, Responsibilities, and Training**

4.1   PT data entry staff and PTDB users must be proficient in Excel.

4.2   All Staff working in the PT Prep room will follow General Lab Practices (GLP).

- Wear closed-toed shoes when handling and preparing samples.
- Food and beverages are prohibited in PT Prep space and should be kept in designated office space.
- Personal gear is limited to the designated office area.
- Observe signs with study-specific room restrictions.
- Read all the PT room Safety data sheets (SDS's).

4.3   The SPL or PM will provide orientation/training to the new PT database users as specified in section 5.0.

4.4   The PM or SPL will be responsible for uploading signed Chain of Custody forms and FedEx tracking receipts into the Product Testing X-drive. The files are printed and stored in the Data Entry Review Completion Checklist binder under the associated study.

4.5   The PM or the purchase coordinator will summarize the amount spent on products as per study QAPP, on the PT Purchase Summary spreadsheet stored on the PT Share Point Site.

4.6   PM or SPL will email the PT Database administrator when to add new users.

4.7   PM will add new studies to the **Studies** page with the associated Washington Administrative Code (WAC) and the Revised Code of Washington (RCW).

4.8   PM and SPL will add **Purchases** (i.e., stores or locations) to the PTDB throughout the Study.

4.9   The PM may review all the Study Level Information, and will provide a list of study-specific brick options (Optional and study-specific).

- If CSPA bricks are used, the PM will review all predetermined bricks with the CSPA Enforcement Officer.

4.10   The PM or SPL will post study-specific brick options in the PT Prep Room (OL-21) during the active study.

- The current CSPA brick list and definitions is posted in the PT Prep Room

- Users with administrative rights can search the GS1 Global Product Classification (Brick Codes) on the PT Database home page 'Lookup' tab under **Product Classifications.**

- For brick definitions visit the GS1 Browser.[1]

4.11   The PT data entry reviewer will send a confirmation email to the PM and Sample Prep Lead to update and verify that the Data Entry Review Completion Checklist has been completed.

4.12   **Training**

Prior to beginning work, the SPL or PM will conduct training that includes familiarizing new PT Staff with:

- Potential hazards in the Prep Room.
- The location of first aid kit and safety supplies.
- The PT Safety Data Sheets (SDS's) folder.
- The evacuation route and meeting location.
- The physical and electronic locations of the PT SOP's.
- The location of supplies needed for sample handling throughout the data entry process. PM's may request a review of the sample handling section of PT SOP 1.
- The PTDB entry staff and users read the following documents located on PT SharePoint Site:
- The PT Data Entry and Database Use SOP #2.
- The study specific Quality Assurance Project Plan (QAPP) for any project worked on. The QAPP details study specific sample handling, and recording requirements.
- Product Testing Data Entry Review Completion Checklist Template (Appendix A).

4.13   Prior to data entry, the SPL or PM provides the following study-specific information:
- A predetermined list of product Bricks Codes used on a project in order to standardize and categorize similar products
- UPC photo example and verbal description.
- Examples of specific label types for photos
- The location of cabinet keys
- Camera instructions, location, and photo setup requirements

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[1] https://www.gs1.org/services/gpc-browser

- Component definitions with standardized name lists (determined by the PM if necessary)

5.0   Equipment, Reagents, and Supplies

5.1   A computer with access to the Internal PTDB, SharePoint, and Excel's Micro query program installed to enable running the data entry QC tool.

5.2   Digital camera (agency camera only).

5.3   Product Identification labels (Dymo Label Writer).

5.4   Blue tape.

5.5   Prescreened product storage bags.

5.6   Organizational totes (store products by store or location).

5.7   Data Entry Completion Checklist Log (Located on Product Preparation bookshelf).

5.8   A clean workspace when logging in products. Clean surfaces with 24% ethanol and line with clean foil when in use or when needed.

For low-level studies there may be additional requirements. One example is, foil surfaces lined with clean Kim Wipes that are changed between products. Foil and Kim Wipes changes are needed even if products are in sealed packages. Refer to project specific QAPP for details.

6.0   Summary of procedure: Entering relevant information into the PTDB

6.1   Purchase Event Documentation

Enter a purchase record for each purchase event in the PTDB from the home page of the Internal Product Testing Database:[2]

- Select **Enter purchases.**
- Select **+Add purchase.**
- Fill in **Purchase Type * (***Required fields)
  - Purchased at store
  - Purchased from website
  - **Requested from manufacturer**
  - **Scavenged for background study**. Items/products donated to a study. Currently used for Toxics in Packaging studies. The PTDB usually assigns a 00-# associated with the collection period.   Any purchasing information provided will be captured in the product notes.
  - **Other source**. Utilized when products/samples are collected from site locations.

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[2] Link only accessible to Ecology employees

Uncontrolled copy when printed.

- **Purchase Date ***. Select date from calendar. For online orders use the date the purchase was made.
- **Purchased By ***. Automatically populates with current username. Change to reflect the name of the purchaser.
- **For Study ***. Choose from dropdown list.
- **Purchase Request Number.** Required for any online purchase, or if an in-store purchase exceeds $125.
- The HWTR Purchase Coordinator will complete a **Purchase Request**, which generates a Purchase Request Number (PR#). The SPL or PT staff will upload this PR# into the PTDB.
- **Purchase Price** the total cost of the products from that specific location**.**
- **Available on a state contract** Check box if purchased off a state contract.
- **Purchased From ***. Choose from dropdown list.
- **Website Address *.** Website address if purchased online. Test web link.
- Store Address
- **Save** entered data.
- The PTDB will generate a **Purchase ID** (e.g., "TG-1" = Target, purchase event 1)
- **Add a document.** The document type selection drop down contains: receipt, request for a product, and advertising. Add a scanned receipt and any additional purchase or store-specific documents (e.g. advertisements, packing slips, product location photos which are stored on the PT X-drive under the study name) to a purchase by selecting
- Note: To edit a purchase or add a document, return to the purchase by selecting **Enter purchases** then use either: **Purchase ID, Purchased From, Purchase Date** range or **Search purchases** by making a selection from the dropdown list. To edit, select **View/edit**, then either. **Add a document** or select *Edit purchase to change or add any fields on this page.*

6.2   **Entering Purchase Tracking Information for "State Contract" and Emergency Card online orders.**

- The PM and the SPL will receive all original packing slips for the Emergency Credit card orders, and scan and save copies under the Packing Slips/Receipts folder in the PT X-drive study-specific folder. Review copies of the Packing slips/Receipts found in the Credit Card Log (stored in the PT Prep. Room) for any additional business or product cost required by the PTDB.

- The HWTR PC will receive all original "State Contract" packing slips, and scan and send digital copies to the PM and SPL. This information will be tracked in the Purchase Sample Tracking Log saved on the PT SharePoint/Project Files Library/ in Team Documents under Category: Costs.

- The digital images (.pdf files) of all packing slips will be uploaded on to the Purchase page of the PTDB under receipts.

- Only log in products once the whole order has been received. **Do not log in incomplete orders** unless the sample processing window is closing. Defer to PM for guidance on how and when to log in the incomplete orders.

6.3   **Reconciling discrepancies regarding charges to the Emergency Card for an online purchase.**

- When charges to the Emergency Card for an online purchase do not match the total of the original invoices, one of two things may have occurred.

- One or more products on the purchase were cancelled or the shipping costs differed from the amount on the original invoice.

- Print all original invoices which contain cancelled products.

- Identify cancelled products on the original invoice/s, document the reason for the cancellation, initial and date the discrepancy and place it in its study specific folder.

- Call the vendor and request a new invoice to be emailed that accurately reflects the order received. Upload the new invoice into the X-drive and print two copies of the invoice for it to be added to the Active Monthly Purchasing Log and the Study Specific Folder. The original order may be subdivided and come in multiple orders from different distributors. Each shipment received must have an updated invoice.

- Replace the associated invoice for that specific purchase in the PTDB with an updated invoice. The final invoice should include the purchase price of all the products received and all associated shipping costs.

- Under Purchase Info on PTDB, edit the purchase price to reflect the new total.

- At the end of the month, the invoice totals must match the amount charged to the emergency card.

6.4   **Product Documentation – Entering Products and Components**

Enter each purchased product into the PTDB from the home page of the Internal PTDB:

- Select **Enter Purchases**.
- Locate a purchase event by selecting **Search Purchases.** Select a purchase event   by choosing the active study from the dropdown box or query in the **Purchase ID** or **Purchased From** box. Open the purchase event by using **View/edit**.
- Select the **Product** tab and click on **+Add Product**.
- Fill in:
    - **Product Type** designates the study (i.e., Brakes, Children's Products, or Other Consumer Products). If "Children's Product" is selected, additional information will be required.
    - **Available on a state contract** Check box if product was purchased off a state contract. Add notes regarding the donating agency, donation date and or the product PO number.
    - **Product Description** official name of the item purchased (i.e., All Sport Inflating Pump).
    - Select **Product Classification Brick** by using the **Find** button and selecting the appropriate **Segment**, **Family**, and **Class** from the dropdown menu that classifies the product being sampled. Consult the Sample Prep Lead, PM or Brick Enforcement Officer for assistance when classifying products and for a defined list of study specific bricks.
    - **Manufacture Date.** Optional. Check with PM if it is to be used for the study whose product is being entered.
    - **Made In.** Choose from dropdown list of countries.
    - **Brand.** Choose from dropdown list or enter a new one. A new entry will automatically update the existing list**.**
    - **UPC.** The Universal Product Code, an 8, 12, 13 or 14 digit code found at the bottom of a scan code. This includes all the numbers under the bar code. For example below the first '0' and the last '2' are part of the complete UPC.
    -
      0 36000 29145 2

- o **RN** number. Only applicable for textiles.
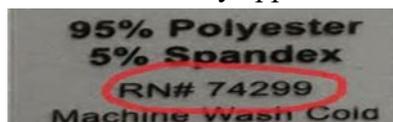
- o **Minimum and Maximum Intended Age.** Children's Products only. Record age listed on the product packaging. To confirm that the age appears on the packaging, select "As listed on the product" check-boxes for both the minimum and maximum age, if present.
- o If no age limit appears on the packaging, follow the instructions for Target Age Determination in Appendix C, and in the **Product Notes** field, select from **Other Reasons** drop-down list and/or justification(s) for missing age should be recorded in **Product Notes** field.
- o **Exposure**. Children's Products only. Choose from dropdown list (an exposure definition list will be posted in the PT Prep Room).
- o **Product Notes.** If a product is on an advertisement or in a location photo, make a note referring to the purchase page. For example, additional product notes include but are not limited to laws, warning labels, technical bulletins, and fabric/matrix compositions. The note field may be used to record any project-specific information requested by the PM.
- o **Save** entered data.
- Add **Related Businesses**. Select + **Add business**.
  - o Business Type. Choose from dropdown list.
  - o Business Name. Choose from dropdown list or enter a new one. A new entry will automatically update the existing list.
  - o Website if provided on label. Test website address.
  - o Address. Choose country from dropdown list and fill in remaining address fields if available.
  - o Save entered data. Repeat this step for all the businesses listed on the product.

6.5   If available, add additional documents such as warranties or product data sheets. Select **Add** a document on the **Product** tab to save these items.

6.6   **Adding a picture**

- All photos should be properly rotated when saving, verify before photos are uploaded from the PT: drive. Do not name photos on the X: drive.

- The database will automatically fill in the Photo Description * field from the product description field with the product name (e.g., "Fluffy Pink Dog"). The first photo added should be the photo showing the front view of the whole product in its original packaging. (e.g. "Fluffy Pink Dog - Front"). Note the order in which the photos are uploaded are the order they are displayed in the External PTDB.

- Specific studies may require, additional photos of the product out of its packaging and or photos of specific items; PM will advise. These may include photos displaying a product in assembled state, photos of product with accompanying accessories that could not be seen in the packaged product, or products too large to be captured in a single photo.

- All photos uploaded into the PTDB must add a descriptor suffix following product name. This descriptor suffix is used to easily identify the subject of the photo.

- The **Photo Description *** format requires "the **product description** space-space suffix (e.g. "Fluffy Pink Dog - Front" or "Fluffy Pink Dog - Back").
- Mandatory photos in order: **Front, back, UPC**.
- Additional study specific photos may include:
- An **RN #** if its clothing.
- Clothing and furniture may require **care** and fabric **composition** labels.
- Personal care products may require **ingredients** labels
- Compounds/mixtures such as lubricants, fish feed, fish pharmaceuticals, cleaning supplies or firefighting agents may requires **SDS's or** warning labels.
- Some study may require a photo of the **product age** noted on package.
- Select **Browse** and select pictures from the PT X-drive.[3] Choose the associated photo and select **Open** and **Upload**.

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[3] Link only accessible to Ecology employees

6.7   Entering Components

Refer to the PM/Sample Prep Lead regarding which components to log in as potential samples as component types vary by study.

- Select **+Add component** on the **Components** tab.

- Fill in:

  - **Component Description**: Use the format, "Product Name – Descriptive component identifier." Be as specific as possible and use a standardized nomenclature list provided by the PM to ensure all like components can be sorted with ease. Use format, Product Name – Descriptive Component Identifier.
  - **Component Material**: Choose from dropdown list. Consult the Sample Prep Lead or PM for assistance if unsure.
  - **Prepared By:** The username is automatically generated by the PTDB.
  - **Logged In On:** The date the product was logged in.
  - **Processing Method**: If sample was processed in the PT Prep Room, choose from dropdown list. Select Hand Reduced if solid sample was reduced in size using tools such as scissors, snips or knife. Select Aliquot if sample (liquid, cream, oil or gel) was decanted from the component. Select **Original** if sample was not reduced in size or decanted (e.g., lotions, fragrances). Select Composite if sample/component is combined from two different colors or if component was combined from more than one package. Add specific composite details to Components notes.
  - **For Study:** Choose from dropdown list. Default to the primary study for the product component.
  - **Component Notes**
  - **Save** entered data.

- Packaging materials may be evaluated as an element for the **Toxics in Packaging Study**, or logged directly under the original study.

- If the package has component(s) that would be scanned or sent to the lab for the study it was purchased for, the study should be the original study.

- If the product was purchased or donated to the Toxics in Packaging Study, it should be associated with the relevant package study. (Toxics in Packing 2017, etc.)

- Add packaging components to the original study after all other components have been created.
- Create packaging components first when logging products in to the Toxics in Packaging Study.
- In all cases, packaging components should have the **Packaging component** box checked.

6.7.1   Database-generated IDs

- The database will generate a **Product ID** (e.g., "TG-1-1" = Target – Purchase Event 1 – Product 1).
- The database will generate a **Component ID** (e.g., "TG-1-1-2" = Target - Purchase Event 1 - Product 1 - Component 2). Make sure the **Component Description** clearly identifies each component.
- Enter other component information, such as photos, duplicates, composite and comments into the PTDB under the **Components** tab as needed by selecting **View/edit**. It may be necessary to take photos of individual components.

6.7.2   Adding component photos

- Select **Add a photo** on the Component Details page.
- The database will automatically fill in the **Photo Description** field with the product description.
- Select **Browse** and select pictures from the PT X-drive.[4] *Photos will be stored in a folder under the study and store name.*
- Choose the associated photo and select **Open** and **Upload**.

6.7.3   Making duplicates.

A duplicate is created in the database with an additional ending: d1, d2, etc. (e.g., "TG-1-1-2-d1" = Target - Purchase Event 1 - Product 1 - Component 2 - duplicate 1).

- Click **+Add duplicate** on the Component Details page. The database will automatically generate an additional Component ID.
- If more than one duplicate is to be sent out, select **+Add duplicate** again and an additional component will be generated adding a "-d2" to the component. The duplicate record can be deleted by selecting the red **X.**

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[4] Link only accessible to Ecology employees

6.7.4   Making composites.

- Create a new component as described above.

- Identify the components in the composite by individually adding them by selecting **+Add component** under the header **Composite of** on the Component Details page.

- Repeat this process until all the components are added. *Note: The database will then generate a table on the component page identifying the components in the composite.*

6.8   Components can be used for another study within a two-year period from the purchase date. PM will decided if product/formula is appropriate.

6.9   **Labeling Products**

- Print a standard formatted label including WA State DOE, Product Testing Program, Study Name, and Product ID. Make sure that all labels are printed in bold.

WA State DOE
Product Testing Program
CSPA Data Assessment 2016
HL-6-1
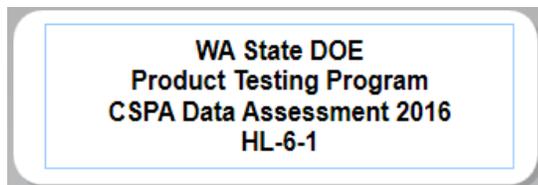
← **Product Label**

- If PM requests component labeling, print a standard formatted component label.

WA State DOE
Product Testing Program
CSPA Data Assessment 2016
HL-6-1-1

←**Compenents Label**

WA State DOE
Product Testing Program
CSPA Data Assessment 2016
Hobby Lobby 6
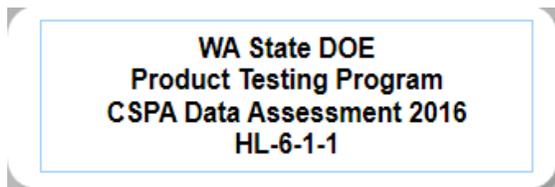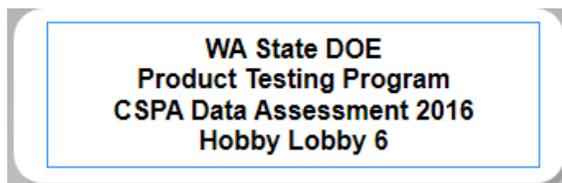
← **Box Label**

6.10 **XRF Data Upload**

- Upload the Niton Data Transfer (NDT) and Comma Separated Variable (CSV) files from the XRF to your desktop.

- Review CSV file and verify that the errors in the daily XRF Error Log are corrected or removed before uploading the file (e.g., samples stopped early or incorrect sample scanned).

- From the home page of the internal PTDB, select **XRF batches**, then **Import XRF batch**.

- To upload the CSV file select **Browse**. Locate file from the computer desktop and select **Open**, then **Upload**.

- Under the **Not Loaded Results** tab, select **Check if results will load** to check for loading errors. Select **Okay.**

- Select **Load search results** button. Select **Not Loaded Results** tab.

- Review the list of Not Loaded Results to determine problems that will prevent proper uploading.

  - o If the only unloaded records on the list are Systems Check or bal (balance: the total balance of unidentified elements usually expressed in percentage), highlight unwanted records and delete. All records containing valid Component ID's should be in the Loaded tab.

  - o If there are other items in the list, investigate why they are appearing by reviewing the error check message located at the left, then returning to the NDT and CSV files to further investigate errors. Review the NDT file, make appropriate edits to the CSV file and Save. Delete the partially loaded data (select all items and Delete) then upload the new edited CSV file.

  - o When an error or an incomplete record has been changed in the CSV file, a case narrative (Word document) is created and uploaded with an error description. The case narrative file name should match the name of the CSV file, usually the date the file is generated.

  - o The only data remaining should be located in the Loaded Results tab.

  - o Add NDT file to XRF Batch Details Documents. Select Add document. Select Browse and locate the NDT file on the computer desktop. Select Open, then Upload.

6.11 **EDD Formatting for Analytical Lab Results**

This step is conducted by the PM.

- Lab results are reviewed in accordance with QAPPs and other SOPs. After the PM completes the final review, an EDD will be loaded into the database or data will be transferred via LIMS.

- Business Rules on Loading EDDs into the Database.

- In general, data provided in the EDD will not be modified. However, EDDs containing minor deviations from the PTDB EDD specifications may be changed in order for the data to be uploaded. These minor modifications include:

  o Changing chemical names and Chemical Abstracts Service (CAS) numbers to match the Environmental Information Management System (EIM) specifications and format.
  o Changing method names to match EIM specification.
  o Changing lab names to match PTDB specifications.

- Common errors and issues that will be resolved by the PM:

  o Correcting data qualifiers that do not match PTDB specifications.

  o Making any changes to data about the actual chemical analysis, including changing result values, information about sample digestion, or other information that could impact the validity of the data entered into the database. If the PM and the analytical laboratory are in agreement about necessary changes to these parameters, supporting case narratives will be provided and will be stored in the projects Share Point files.

- The database provides a list of results that loaded and a list of those that were unable to load due to errors. The PM will review any results that did not load and will resolve any remaining issues or delete the remaining files.

6.12   **Final Overall Results Review**

This step is conducted by the PM. The purpose of this final review is to ensure completeness. Using the external PTDB, the PM for the study will query a random 10% of the chemistry data and review all enforcement product information.

- Using the external product database, under **download data by study**, download the results from the study and complete the following global checks on the entire data set.

- Check that there are no blank values in any of the following fields and that values make sense for the column heading. For example, check that there are no store names in the component description field, or analysis values outside the range of expected results.
  o Chemical
  o Product Description
  o Component Description
  o Brand Description
  o Store Name
  o Analysis Value/Analysis Quantity Computed
  o Analysis Lab Name

- Make sure all data types tested for the study were entered. For example, if the study tested metals, phthalates, and parabens, filter on the Chemical column to see that all those parameters are there.

6.13   Check the analysis values for 10% of the lab samples and all the enforcement samples for completeness and accuracy. For example, if there are 50 lab sample IDs, all of the records for 5 sample IDs will need to be checked. Cover a range of retailers and parameters when selecting the 10% for review. Make sure all of the following are correct:

6.13.1   Product Description:

Verify that the correct product is described by using the External Database[5] search by Product Description function and viewing the photo. Click on **view** to see the product details and picture.

6.13.2   Component Description:

Accurately describes component.

6.13.3   Component Material Name:

Verify that the component material is corresponding to the component being tested.

6.13.4   Brand Description:

Check this against the product picture.

6.13.5   Store Name:

Confirm using the receipt. You can find the receipt in the Internal Database search by Purchase ID.

6.13.6   Analysis Value (Analysis Quantity Computed in study download).

Verify the analysis value against the case narrative or the report.

6.13.7   Unit of measurement:

The database converts all lab results to ppm. Make sure that this conversion didn't introduce any errors by checking against the case narrative. See the table below for help with this step.

Table 1: PPM conversion guide

1 ppm = 1,000 ppb	=	1 ppb = 0.001 ppm
ppm	=	mg/kg, ug/g, mg/L
ppb	=	ug/kg, ng/g, ug/L
ppt	=	ng/kg, pg/g, ng/L

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[5] https://apps.ecology.wa.gov/ptdbreporting/

6.13.8   Qualifier Code:

Confirm with the case narrative. If reviewing results from a contract lab, the qualifier may not match the value in the database. Utilize the studies qualifier code crosswalk to verify the accuracy of the intended changes.

6.13.9   Analysis Method Description:

Cross-reference with the case narrative and Analysis Method Code (located further down on the spreadsheet).

6.13.10   Extraction Method Description:

Cross-reference with the case narrative and Extraction Method Code (located further down the spreadsheet).

6.13.11   Segment, Family, and Class Descriptions:

Verify accuracy of product classification.

6.13.12   Product Type:

Select from Brakes, Children's Products, or Other Consumer Products.

6.13.13   Minimum and Maximum Target Age:

Children's Products only. Verify age on the product packaging. Confirm "As listed on the product" check-box is selected for one or both of the ages (one check-box for minimum age and one check-box for maximum age).

- If no age limit appears on the packaging, target age should be estimated following the Target Product Age Determination instructions in Appendix C, and justification(s) for missing age should be recorded in the **Product Notes** field.

6.13.14   Exposure:

Children's Products only. Verify that Exposure Description is appropriate for the product.

6.13.15   Component ID and Lab Sample ID Code:

These values should correlate. Lab Sample ID and Component ID will be listed side-by-side on MEL's case narrative. If reviewing results from a contract lab and the Component ID or Lab Sample ID is not on the case narrative, contact the project manager for a cross-reference table.

6.13.16   Lab Name:

Confirm the lab name.

6.13.17   Reporting Limit and Detection Limit:

Check this against the case narrative.

6.13.18   Is Digestion Complete Flag:

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Uncontrolled copy when printed.

This field should have a Y or N *only* if the parameter is a metal.

6.14   If errors are found in the first 10% of the review process, the file must be removed from the External Database view until the errors have been corrected. Report any errors found to the Product Testing Database Coordinator.

6.15   Check all photos of products sent out for analysis and retake if necessary.

6.16   **Instructions for uploading laboratory results to the PTDB.**

- Laboratory data from MEL is transferred to the PM's Lab Batches holding area of the PTDB via the Laboratory Information Management System (LIMS).

- Laboratory data from contract laboratories is uploaded to the **Lab Batches** using the **Import lab batch** function. Contract lab data that comes directly to MEL or to the PM is entered using the PT Contract Lab Electronic Data Deliverables (EDD) Template,[6] following the instructions from the EDD help document:[7]

  o From the home page of the internal PTDB, select Lab batches, Import lab batch.

  o To upload the .CSV file select Browse. Locate the file from the computer desktop and select Open.

  o Select the lab used and the Lab Batch ID or lab work order number. Select Save.

- On the **Lab Batches** page, select **View/edit** for the file you wish to upload.

- Under the **Not Loaded Results** tab, select **Check if results will load** to check for loading errors. Select **Okay**.

- Select **Not Loaded Results** tab. Review the data to evaluate problems that prevent uploading.

  o Quality Control (QC) Samples are not uploaded into the PTDB. To remove QC Sample results, select the box at the far right for each item or select all and Delete.

  o If there are other items in the list, investigate why they are appearing by reviewing the error check message located at the left, then return to the .CSV files to inspect errors.

- After data review, add the case narrative file to **Lab Batch Details Documents**. Select **Add** a document. Select **Browse** and locate the file and **Open**. Select "Case Narrative" on the dropdown menu for **Document Type**. Select **Upload**.

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[6] Link only accessible to Ecology employees
[7] Link only accessible to Ecology employees

6.17   **Final Step:**

- After conducting the data review, the PM will check "The lab results have been QA reviewed by the project manager" box. A pop-up will ask for confirmation. The date confirmed and Project Manager's name will be documented on the Study Details page.

- Once the reports have been published, the PM may select **yes, Make the results available in public reports,** making the study-specific data public.

- The Product Testing SharePoint site contains a working files category for each active study. The project manager will upload documents relevant to the study including the QAPP, data packages, raw data, and documentation describing the status of the final dataset.

6.18   **PTDB Administrative View**

An administrator will have the ability to add and remove items from the Internal PTDB that the database user will not. These items include:

- Adding new analytes, labs, methods, stores, studies, bricks, and component materials.

- Correcting Brand and Business names.

- Adding documents for a specific study such as RCWs, WACs, and QAPPs.

- If a business name/brand/store is misspelled in the PTDB, contact a database administrator.

7.0   Records Management

7.1   Form templates are located on the PT Share Point Site.

- Electronic PT Sample Inventory - Log PT X: drive

- Laboratory Analyses Required (LAR) form, which will serve as the COC - PT Share Point Site

- Pre-Sampling Notification form (PSN) - PT Share Point Site

- Product Documentation Log kept in the PT Prep Room

- Product Testing Preparation Staff - Training Checklist - PT Share Point Site

- Purchase Sample Tracking Log- PT Share Point Site

- Sample Container Request form - PT Share Point Site

7.2   Upon completion of a study, PM's must record any recommended additions or changes to the working version of the PT Universal QAPP, e.g., new chemical group, methods, and reporting limits with specific matrices. Staff will not follow procedures in the working version of the Universal QAPP until it or an addendum has been approved.

7.3   Paper record retention for PT Studies

- Paper records will be kept in the designated PM's cubicle or programs central files for 3 years and or enforceable action has been completed/resolved. The records should be achieved in an expandable folders with labeled manila folders.

- After the records have been kept for 3 years, the HTWR Public Disclosure Coordinator will send it to the Records Center, where they will keep it for 17 years (total 20 years retention period).

- The Records Center will send it to the State Archives, where it will be kept indefinitely.

8.0   Quality Control and Quality Assurance Section
Product Testing Data Entry Review Procedure

8.1   Data entry review is the process of ensuring that data was accurately entered into the PTDB. The review process involves making sure that study, purchase, products, XRF results, and lab EDDs are entered into the PTDB in a standardized format. This Data Entry Review Procedure will be conducted on all product testing studies. This process will include reviews from the internal and external PTDB utilizing the PT Data Entry QA tool.

8.2   The study entry, lab results, and final review will be completed by the PM. The purchase, product, component, and X-Ray Fluorescence (XRF) results may be reviewed by any PT database user. Reviews should be conducted shortly after each step of data entry is completed (ideally 3-4 weeks) or every 3 months if a project is ongoing.

8.3   Upon completion for each step of the review procedure, the reviewer will check off the review sections that have been completed and will sign and date the **Data Entry Review Completion Checklist**. The Data Entry Review Checklist will then be place in the **Data Entry Review Completion Checklist Log** under the associated study located in the PT Prep Room. For each store purchase and product, complete the Data Entry Review Checklist. The checklist will be used throughout a study, adding store purchase information if more products are purchased and added into the PTDB.

8.4   If new components are added after the original review has been completed, the review needs to be redone for the stores/purchases with additional components. However, if small edits are made to product information or components (e.g., description changes or adding new components to a specific product), a second review will not be needed.

8.5   Scavenged products for Toxics and Packaging will need to be reviewed with the PTDB QA tool on a quarterly basis.

8.6   The Product Testing Data Entry Review Completion Checklist can be found on the Product Testing SharePoint site under the "Forms and Templates" section. The QA Tool can be found on the Product Testing Database Team SharePoint site.[8]

8.7   **Study-Level Review**

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[8] Links only accessible to Ecology employees

- The PM will verify that the Study-Level information is accurate.

- Find the study on the [Internal Database](#)[9] by following the right hand navigation bar:

    o **Lookup > [Studies](#) >** Study Name **> View/Edit**[10]

- Review all study details and make sure all the links work. The PM should review:

    o The study name, RCW and WAC references and related QAPPs.

- When this section of the review has been completed, the reviewer will sign and date the Study level review in the PT Data Entry Review Completion Checklist.

8.8   Product Testing Database Entry Review

Database Entry review is conducted by someone other than the person that has entered majority of the data. Exceptions vary depending on staff availability. Any discrepancies found throughout the process will be recorded on the comments column. Prior to starting the QA process the PM will provide instructions for recording/correcting discrepancies. All changes need to be made in the Product Testing Internal Database.

8.8.1   Purchase/ Site Review

To verify that the product acquisition store or site locations have been accurately entered into the database under a specific study:

- In the Purchase, Store and Document Review tab, select the study under review by using the Study Name dropdown box.
- Check and count all entries made in the Product Documentation Log for store purchases associated with the study under review.
- Check and count number of online purchases for the associated study in the specific Study Folder.
- The number of documents at the top of the page should align with the number of purchases/site visits (receipts) available for the associated study. Once this step is complete, the review may be conducted by searching and filtering through a specific study on each available tab.
- Open a copy of the Product Testing Database Entry Checklist located on the SharePoint site under Forms and Templates. Fill out the information on top left.
- Populate the Store/Site name and the Date of Purchase columns on the checklist with the information from the Purchase, Store and Document Review page.
- Print the Product Testing Database Entry Checklist.

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[9] Link only accessible to Ecology employees
[10] Link only accessible to Ecology employees

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8.8.2   Purchase, Store and Document Review

In the Purchase, Store and Document Review tab, select the study under review by using the Study Name dropdown box. Click on the Doc URL to open a copy of the receipt attached to each purchase and review the following for accuracy:

- Correct receipts are attached to the purchase. (For example, an amazon receipt attached to a Dollar Tree purchase ID code is inaccurate.)
- The Purchase Date matches the date on the attached receipt.
- Address and store information recorded matches the receipt.

Then click on each Purchase URL to open a link to the internal database and review the following for accuracy:

- The amount on the receipt matches the purchase price on the database.

- When products are purchased off Washington State contracts select or check available on state contract box.

- If multiple documents have been added for a single purchase, such as advertisement pictures, the "Purchase ID" will be highlighted in red.

- Web links are working.

- All items purchased on the receipt have been logged in and have a product ID. This can be done by matching the number of items on the receipt with the number of products logged in for each purchase.

  (Note: Consider that duplicate products may have been purchased for creating enough sample weight for laboratory analysis.)

8.8.3   Product Review

On the Product Review tab, select the study under review by using the **Study Name** dropdown box. Click on the Product URL to open a link to the internal database. Review the images of the products to verify that:

- Descriptions match the product.
- Brand information is present and accurate.
- The product type, product brick is present and accurate.

Some PM's may provide specifications for product bricks, minimum intended age, maximum intended age, and exposure information prior to logging in the products. Those specifications need to be verified throughout the QA procedure.

8.8.4   Photos Review

On the Photo Review tab, select the specific study by using the **Study Name** dropdown box. Review pictures of the products by clicking on each photo to ensure that:

- Photos match the Photos Description and all photos required by the QAPP have been captured and labeled.

- All photos are properly orientated.
- Photos that are blurry, have a wrinkled backdrop or have a large shadow should be noted on the comments section. (Retake and upload photos.)
- Verify that the UPC code entered matches the UPC picture, making corrections when necessary. If a picture of a tag with any number other than a UPC is attached, relabel the picture as package product ID #.

8.8.5   Components Review

On the Components Review tab select the specific study by using the **Study Name** dropdown box. Search the component information to assure:

- Components are not logged in under an incorrect study. Verify with the PM whether the packaging component belongs with the study under QA review or a Toxics in Packaging study.

- Processing method is correct.

- Component descriptions are specific and use the standardized nomenclature provided by the PM.

8.9   Once each store/purchase has been reviewed, the reviewer will send a confirmation email to the PM and Sample Prep Lead to update /verify that the data entry completion checklist has been completed**.** Reviewers are normally given 3-4 weeks to complete the study, store/location, product, and component reviews. If new stores or components added after the original review have been completed, the review will need to be redone for the stores/ purchases where components have been added.

8.10   **XRF Batch Review –** Conducted by PM or SPL

The XRF data will be verified the next day before scanning resumes.

- Confirm that all the standards meet the acceptance criteria by reviewing the associated .csv file.

- Using the PTDB verify that the associated NDT file was attached, and   that the list of stores/sites and associated Component IDs scanned are reflected in the batch.

9.0   Safety

9.1   In case of emergencies, a first aid kit is available in the PT Prep Rm.

9.2   Review the evacuation Route and emergency meeting place location.

9.3   Review the PT Prep Rooms possible uses and potential hazards.   Intended to increase general awareness of multiuse procedural operations.

10.0 References

Ecology, 2004. *Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies.*[11]

U.S. Environmental Protection Agency, 1997. Glossary of Quality Assurance Terms and Related Acronyms.

Kammin, B., 2010. Definition developed or extensively edited by William Kammin, 2010. Washington State Department of Ecology, Olympia, WA.

Wiseman, C., 2018.Standard Operating Procedures for Sample Collection and Processing SOP No. PTP001 Version 2

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[11] https://fortress.wa.gov/ecy/publications/SummaryPages/0403030.html

Appendix A

Product Testing Data Entry Review Completion Checklist Template

Version 2.0
January 2019

STUDY NAME:
PROJECT MANAGER:
PTDB DATA ENTRY PERSON(S):
PTDB DATA ENTRY REVIEWER (RESULTS):

Study Level Information Review

Study Name	RCW Link/s	WAC Link/s	QAPP Link/s	Study Level Review Date	PM Signature

Product Testing Database Entry QA

Store/Site Name Purchase ID Code	Date of Purchase	Purchase Store and Review	Product Review	Photo(s) Review	Component Review	Name (Print)	Date	Comments

PTDB Data Entry User will send a confirmation email to the PM once the data entry review and checklist are completed.

Checklist Completion Confirmation email to PM
(PT data entry user)

Signature	Date

Review Comments:

_____

_____

_____

Update Study Details in PTDB

After the PM has reviewed the Data Entry Review Completion Checklist verifying that signatures have been obtained, the PM will change the **Study Level QA Review status** and will check **"The lab results have been QA reviewed by the project manager"** box.

The PM will click the "**Make the results available reports**" button to **"yes"** once the reports are complete and ready to publish, and the QA data has been reviewed.

Appendix B

Contract Lab EDD Help Template for WA Ecology Consumer Product Testing Data

Table 2: Contract lab EDD help template for WA Ecology consumer product testing data

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
A	**Component ID**	**Component ID**	ID assigned by client to identify a sample	**REQUIRED.**	Ex. "TG-1-1-2"	
B	**Lab Sample ID**	**Lab Sample ID**	ID assigned by an environmental lab to identify a sample.	**REQUIRED.** 50 characters max.	Ex. "G2I250409001"	
C	**Lab Duplicate ID**	**Lab Duplicate ID**	Secondary ID assigned by the lab to identify a portion of a primary sample that has been split for analytical purposes.	**Required if sample is split by a lab.** 6 characters max.	Ex. 1, 2, 3, or DUP1, DUP2, DUP3, etc.	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
D	**Lab Pre Treatment Method Code**	**Lab Pre-Treatment Method Code**	How the component was broken down into a state suitable for laboratory testing.	**REQUIRED if contract lab performed Lab Pre-Treatment. Leave EMPTY if no pre-treatment was performed.**	**CRYOMILL** = Sample was reduced to very small particle sizes (to micron range) by employing cryogenic temperatures and a mechanical mill. **HANDREDUCE** = Sample was reduced in size (to mm range) by scissors, snips, or knife. **DRILLBIT** = A drill was applied to the sample resulting in shavings that were captured for analysis. **ORIGINAL** = Sample was sent for analysis in original state because it could not be reduced in size (e.g., lotions, fragrances). **AS RECEIVED** = Sample was processed as received.	
E	**Lab Pre Treatment Batch ID Code**	**Lab Pre-Treatment Batch ID Code**	Pre-treatment batch ID. Given to all samples in the same batch for pre-treatment. This primarily applies to cryomilling	**REQUIRED if contract lab performed Lab Pre-Treatment - 20 characters max.**		
F	**Lab Pre Treatment Date**	**Lab Pre-Treatment Date**	Date the sample was broken down into a state suitable for testing by the lab.	**REQUIRED if contract lab performed Lab Pre-Treatment.**	Ex. "06/23/2016"	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
G	**Sample Extraction Method**	**Sample Extraction Method**	Procedure or method code used to perform a lab extraction or digestion on a sample in preparation for analysis.	**Required if a lab extraction/digestion was performed on a sample**. 20 characters max.	Ex. "SW3052" For list of valid codes, visit: https://fortress.wa.gov/ecy/eimreporting/Help/ReferenceTable.aspx	
H	**Sample Extraction Date**	**Sample Extraction Date**	Date the sample was extracted or digested by the lab.	**Required if a lab extraction was performed on a sample.** Date, MM/DD/YYYY format.	Ex. "06/23/2016"	
I	**Analyte Name**	**Analyte Name**	Name of the chemical analyte.	**REQUIRED**. 254 characters max.	Ex. "Bisphenol-A"	
J	**Analyte CAS Number**	**Analyte CAS Number**	Chemical Abstracts Service Number of the chemical analyte.	**Required if chemical analyte has a CAS Number.** 15 characters max.	Ex. "30002-00-9" Must include dashes.	
K	**Analysis Date**	**Analysis Date**	The date when the sample was analyzed by the lab.	**REQUIRED.** Date, Format: MM/DD/YYYY.	Ex. "06/23/2016"	
L	**Analysis Time**	**Analysis Time**	The time the sample was analyzed by the lab.	**REQUIRED.** Time, Format: HH:MM: SS. In 24-hour time.	Ex. "10:22:14"	
M	**Analysis Value**	**Analysis Value**	Reported value for the chemical analyte.	**REQUIRED.**		
N	**Analysis Value Units**	**Analysis Value Units**	Unit of measure associated with the Analysis Value.	**REQUIRED.**	Ex. "ug/kg". Do not combine with wet weight or dry weight - ww or dw should be entered under column "V", Analysis Basis.	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
O	**Analysis Data Qualifier**	**Analysis Data Qualifier**	Standard annotation for documenting issues with the Analysis Value, such as non-detects or estimates.	**Required if applicable.**	Contract labs may use their lab's qualifiers/flags. Labs must provide qualifier key with descriptions.	
P	**Analysis Quantitation Limit**	**Analysis Quantitation Limit**	Minimum concentration at which detection of a chemical analyte is reported. Usually above a chemical analyte's method detection limit.	**REQUIRED.**		
Q	**Analysis Quantitation Limit Type**	**Analysis Quantitation Limit Type**	Specifies the type of Quantitation Limit reported by the lab.	**REQUIRED.**	**MRL** = Method Reporting Limit, **PQL** = Practical Quantitation Limit, **EQL =** Estimated Quantitation Limit, **LOQ** = Limit of Quantitation, **SQL** = Sample Quantitation Limit, **CRQL** = Contract-Required Quantitation Limit (as defined by EPA), **Lab Def** = Lab Defined (not common)	
R	**Analysis Detection Limit**	**Analysis Detection Limit**	Minimum quantity of a chemical analyte that can be distinguished from background.	**REQUIRED.**		

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
S	**Analysis Detection Limit Type**	**Analysis Detection Limit Type**	Specifies the type of Detection Limit reported by the lab.	**REQUIRED.**	**MDL** = Method Detection Limit, **EDL** = Estimated Detection Limit, **LOD** = Limit of Detection, **IDL** = Instrument Detection Limit, **CRDL** = Contract-Required Detection Limit	
T	**Was Sample Matrix Digestion Complete**	**Was Sample Matrix Digestion Complete?**	Indicates if matrix was completely dissolved by sample digestion prior to analysis.	**Required ONLY for metals analyses**.	"Y" = yes "N" = no	
U	**Fraction Analyzed**	**Fraction Analyzed**	Indicates if the fraction of the sample analyzed was the whole sample or a lab-generated leachate derived from the sample.	**REQUIRED.**	**Total** - analysis performed on the whole sample. **Lab Leachate** - analysis performed on lab-generated leachate derived from a solid sample (not common).	
V	**Analysis Basis**	**Analysis Basis**	Physical state in which the analyte concentration was reported - either as the sample was received by the lab (wet weight) or adjusted to remove moisture (dry weight).	**REQUIRED.**	**A blank field =** Analyte concentration is "As Received". **Wet** = Analyte concentration in wet weight and is equal to "As received." **Dry** -analyte concentration in dry weight (moisture removed).	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
W	**Analysis Method**	**Analysis Method**	Lab procedure or method used to derive an Analysis Value.	**REQUIRED**. 20 characters max.	Ex. "EPA1694" For list of valid codes, visit: https://fortress.wa.gov/ecy/eimreporting/Help/ReferenceTable.aspx	
X	**Analysis Comment**	**Analysis Comment**	Comments about the Analysis Value.	**Optional.**		
Y	**Analysis Additional Comment**	**Analysis Additional Comment**	Additional comments about the Analysis Value.	**Optional.**		
Z	**Analysis Lab**	**Analysis Lab**	Name of lab that analyzed the sample.	**REQUIRED.**	Ex. "Test America, Seattle-Tacoma WA"	
AA	**LAB_CLIENT**	**Lab Client**	Name of the Ecology project manager.	**Optional.**	Ex. "Wiseman, Christina"	
AB	**LAB_CLIENT_Email**	**Lab Client Email**	Email address of data recipient. Usually the same as the Ecology project manager.	**Optional.**	Ex. "Joel.Bird@ecy.wa.gov"	
AC	**LAB_PROJECT_NM**	**Lab Project Name**	Client-provided name of the project.	**REQUIRED.**	Ex. "Children's Products-2016"	
AD	**LAB_ANALYSIS_CD**	**Lab Analysis Code**	Lab code for the analysis recorded in LIMS.	**Not Required.**	Ex. "Sb-3052"	
AE	**LAB_ANALYSIS_DT**	**Lab Analysis Date**	Date of analysis	**REQUIRED.**	Ex. "06/23/2013"	
AF	**LAB_BATCH_ID**	**Lab Batch ID**	Analytical batch ID. Given to all samples and QC performed in the same batch.	**REQUIRED.**	Ex. "BG1105"	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
AG	**LAB_DILUTION**	**Lab Dilution**	Dilution performed prior to analysis.	**REQUIRED if dilution used during analysis.**	Ex. 5, 10, 100, 1000	
AH	**LAB_RESULT_TYPE**	**Lab Result Type**	Identifies whether the record is a regular analyte, a surrogate sample, or a Tentatively Identified Compound.	**REQUIRED.**	**R** Regular Target Analyte, **S** Surrogate, **T** Tentatively Identified Compound	
AI	**LAB_QC_TYPE**	**Lab QC Type**	Quality Control Sample type. This field is blank for non-QC samples.	**REQUIRED for QC samples.**	**DUP#** = duplicate **BLK#** = blank **BS#** = blank spike **BSD#** = blank spike duplicate **MS#** = matrix spike **MSD#** = matrix spike duplicate **SRM#** = standard reference material	
AJ	**LAB_SAMPLE_SOURCE_ID**	**Lab Sample Source ID**	Lab sample ID of native sample used for duplicate or matrix spike.	**REQUIRED for Duplicate or Matrix Spike samples.**		
AK	**LAB_SPIKE_AMOUNT**	**Lab Spike Amount**	Amount of spike analyte added to a sample or QC sample.	**REQUIRED for QC spiked samples.**	Ex. "100"	
AL	**LAB_SPIKE_RESULT_AMOUNT**	**Lab Spike Result Amount**	Amount of spike analyte detected in a spiked sample.	**REQUIRED for QC spiked samples.**	Ex. "100"	
AM	**LAB_SPIKE_UOM**	**Lab Spike Units**	Units for Spike Amount and Spike Result Amount.	**REQUIRED for QC spiked samples.**	Ex. "ug/L"	
AN	**LAB_RPD**	**Lab RPD**	Relative Percent Difference between two laboratory duplicates.	**REQUIRED for QC duplicate samples.**	Ex. "10"	

EDD Column Cell	Template Column Name	Title	Definition	Requirements and Format	Examples and Comments	Questions
AO	**LAB_QC_RPD_LIMIT**	**Lab QC RPD Limit**	Relative Percent Difference Control Limit.	**REQUIRED for QC duplicate samples.**	Ex. "20"	
AP	**LAB_QC_LOWER_LIMIT**	**Lab QC Lower Limit**	Lower Control Limit.	**REQUIRED for QC samples.**	Ex. "50"	
AQ	**LAB_QC_UPPER_LIMIT**	**Lab QC Upper Limit**	Upper Control Limit.	**REQUIRED for QC samples.**	Ex. "120"	
AR	**LAB_CLIENTMATRIX**	**Lab Client Matrix**	Client-defined matrix of sample.	**Provided by Client on COC form; listed as source code.**	**Fabric Foam Metal Misc. PVC Plastic Gel Glass Solvent**	
AS	**Contract Lab Sample ID**	**Contract Lab Sample ID**	ID assigned by a contract lab to identify a sample.	**REQUIRED.**	Ex. "G2I250409001" Contract Lab may leave blank and populate Column B only if no Lab Sample ID was provided by client. If client did provide a Lab Sample ID, enter the contract lab-assigned ID in Column AS.	

Appendix C

Target Product Age Determination

Goal: determine which products are designed for children 0-3 yrs (≥0 and <3) versus children 3-12 yrs (≥3 and <12).

Instructions:
- If a product has an age range on the package, use that as the minimum age and maximum age and select the "As listed on the product" check-box for both ages.
- If there is no minimum or maximum age or a defined age range, use the criteria below to make an estimated determination (and leave the "As listed on the product" check-box empty)
- Always assess 1, 2 and 3a. Make note of discrepancies (in the notes field in the PTDB), but make the target age determination by the first possible criteria
  - E.g. a product labeled as ages 3+ but called a baby spoon should be labeled as ages 3-12 with a note of the product label discrepancy (the "As listed on the product" check-box for the minimum age, 3 years, should only be selected)
- Record the estimated target age minimum and maximum and use the comment box to record the rationale
- *HOT TIP: CDC defines toddlers as children 12-36 months. Therefore is a product is in toddler sizes or marketed as a toddler product and has no other age advertised, it is designed for children under age 3.*

Decision Criteria:

1. Age or size on packaging/ in description
   a. Define age by package label
      i. If the age minimum and maximum are on the box, use those
      ii. If the box has a minimum, but not a maximum, use the lowest age on the box as the minimum and don't put a maximum
      iii. If the box has a maximum but no minimum, use the criteria below to determine whether 0 or 3 is the appropriate minimum and use the maximum age as defined by the box.
   b. Define age by product size (clothing and shoes): See below "Rational for Clothing Size Classified".
      i. Clothing is in infant sizes using months as units (e.g. 3-6 months or 24 months)- product designed for children 0-3yrs
      ii. Clothing is in toddler sizes with a T after the number (4T <u>and</u> under)- product designed for children 0-3yrs
      iii. Clothing is in children's size (XS or 4 and up)- product designed for children 3-12 yrs
      iv. Shoes in infant/toddler size 1-9- are designed for children 0-3yrs

          v.   Shoes in little kid (sometimes just called kids) size 10-13 and big kid (sometimes called youth) 1-4 are designed for children 3-12 yrs

          vi.   If the shoe size is unclear, measure the shoe and compare to sizes in Appendix A, then use criteria 1Biv-v to determine age.

2. Choking hazards warning or small part warning
   a. Choking hazard or small parts warning- product designed for children 3-12 yrs
   b. Product contains small parts, but isn't labeled as a choking hazard- product designed for children 3-12yrs
      i. Small parts defined as: the article itself, or any part that could be detached or broken off during normal or reasonably foreseeable use and abuse that can fit through a hollow truncated cylinder having an interior diameter of 1.25 inches, a minimum interior depth of 1 inch, and a maximum interior depth or 2.25 inches
      ii. *HOT TIP- can any part fit through a toilet paper tube?*
3. Key words on packaging
   a. Baby, toddler, infant keywords indicates the product is designed for children 0-3yrs
4. Picture of child using product on packaging
   a. Child under age 3- Product designed for children 0-3 yrs
   b. If you're uncertain how old the child is using the product- skip to criteria 5
5. Developmental characteristics
   a. Apparel- (If size didn't work)
      i. Soft soled shoes or non-walker shoes (exclude house shoes/ slippers) – product for children 0-3yrs
      ii. Snaps at the crotch- product for children 0-3yrs
      iii. Diapering accessories- product for children 0-3yrs
   b. Meets the characteristics of toys for children 0-3yrs (see Rational for Clothing Size Classification section below)
   c. Meets the characteristics of childcare products for children 0-3yrs (see Characteristics of Toys for Children Under Age 3)
6. Product Reviews
   a. Do other purchasers mention the age of children they have bought the product for?
7. Product category (for online shopping) or location on shelf
   a. Is it with other toys for babies?- designed for children 0-3yrs

Data analysis note:
- In order to analyze data entered in as ranges on packages (e.g. 8-12) and determined through the criteria above (e.g. 3-12) together, prior to data analysis the age ranges will be standardized based on whether the minimum age fits into the 0-3 or 3-12 range.

Rational for Clothing Size Classification

According to CDC the 75th percentile weight for 3 year old boys is 34lbs. Based on the size chart below, that means that by their third birthday, at least 25% of kids would be wearing size 4T. Therefore 4T is frequently worn by a child 0-3 years.

Table 3: Toddler Clothing Sizes

Size	Average Age	Height	Weight
2T	2 years old	33-33.5 inches	24-28 pounds
3T	3 years old	36-38.5 inches	28.5-32 pounds
4T or Child's XS	4 years old	39-41 inches	33-36 pounds

Shoe sizes by shoe measurement: You can use the table below to determine which size based on the length of the shoe. Baby, infant, toddler, and (little) kids shoes follow a continuous numbering system. Sizes restart at size 1 with youth shoes (also called big kid).

These size charts are general guidelines. Each brand manufactures to different standards. Refer to brand charts for specific brand sizing if available.

Table 4: Kids general shoe size chart (baby)

US Size	UK Size	Inches	CM
0	0	3.125	7.9
1	1/2	3.5	8.9
2	1	3.75	9.2
3	2	4.125	10.5
4	3	4.5	11.4

Table 5: Kids general shoe size chart (infant)

US Size	UK Size	Inches	CM
4	3	4.5	11.4
5	4	4.75	12.1
6	5	5.125	13

Table 6: Kids general shoe size chart (toddler)

US Size	UK Size	Inches	CM
6	5	5.125	13
7	6	5.5	14
8	7	5.75	14.6
9	8	6.125	15.6

Table 7: Kids general shoe size chart (kids)

US Size	UK Size	Inches	CM
10	9	6.5	16.5
11	10	6.75	17.1
12	11	7.125	18.1
13	12	7.5	19.1

Table 8: Kids general shoe size chart (youth)

US Size	UK Size	Inches	CM
1Y	13	7.75	19.7
2Y	1	8.125	20.6
3Y	2	8.5	21.6
4Y	3	8.75	22.2
5Y	4	9.125	23.2
6Y	5	9.5	24.1

Characteristics of Toys for Children Under Age 3

The following characteristics are broken down by year to make the list more manageable.
Based on: US Consumer Product Safety Commission. Ed. Smith, Timothy P. Age Determination Guidelines: relating Children's Ages to Toy Characteristics and Play Behavior. 2002.
https://www.cpsc.gov/s3fs-public/pdfs/blk_media_adg.pdf

Products for ages 0-1:
- Product Shape: Rounded corners, edges, graspable
- Materials: Lightweight, washable, soft
- Skills required: Reaching, grasping, mouthing, shaking, ability to sit
- Features: multiple textures, lights, sounds, music, familiar objects
- Example toys: Visual art that attaches firmly to crib, teething toys, sucking toys (pacifiers), rattles, lightweight balls, multi-textured toys, play mats, plush and cloth toys, toys that make sounds when moved, nesting sorting and stacking toys, toys on rings, squeak toys, mechanical swings, play ramps and pads, beach balls, ball pits, cloth books, cardboard books,

Products for ages 1-2:
- Product shape: Small enough to grasp and carry, manipulate, rounded and easy to grasp
- Materials: Lightweight, washable, soft
- Skills required: Walking, pushing, pulling, squeezing, patting, twisting, turning, sliding, social play, angle matching toys (e.g. putting shapes in sorters)
- Features:
- Example toys: Inflatable toys, pop-up toys, sand and water toys, rocking toys, tunnels, bubbles, lacing and stringing toys, pull/push toys, dolls without hair, sock puppets, simple play scenes,

climbing toys, slides with rails, playground balls, crayons, drums or bongos, touchy-feely books, tactile and interactive books

Products for ages 2-3:
- Product shape: Small enough to grasp and carry, manipulate, rounded and easy to grasp
- Materials: Lightweight, washable, soft
- Motor skills required: move fingers independently of each other, fine motor movements and dexterity, walk run, jump
- Example toys: Role playing, riding toys, large interlocking bricks and puzzles, dolls with eyes that move, dolls with hair, clothing and accessories, clothing for dolls will have large buttons/Velcro and be easily maneuverable, finger puppets, puzzles with knobs (5-8 pieces), simple matching games with cardboard (not paper) pieces, tricycles and four wheeled vehicles, parachutes, wading pools, blunt end scissors, finger painting, modeling clay or dough, whistles, horns, pop up books, dress me books, hidden picture books

Appendix C

Child Care items (items designed for feeding, bathing/hygiene, sleeping, etc.) for children under three

Feeding:
- Bottles/ nipples
- Infant feeding spoons/forks
- Bright lightweight plastic bowls and plates
- Bowls and plates with suction or attached to place mats
- Snack containers designed to prevent spills
- Reusable food pouches
- Sippy cups
- Mesh feeders
- Formula dispensers
- Bibs
- High chairs
- Breast milk storage bags
- Small lunch boxes

Hygiene/Bathing:
- Bath tubs/sink bathers and bath chairs
- Nose aspirator
- Diapers
- Wipes
- Pull-ups
- Lotions/oils and balms
- shampoos/soaps designed for babies/toddlers
- Diaper rash cream
- Baby powder
- Hair brushes with soft bristles
- Toothbrushes (silicone or regular bristles)
- Toothpaste for toddlers/infants

- Sunscreen for toddlers/infants
- Potty chairs, training seats and step stools
- Bath safety products- bath mats, faucet covers, water thermometers and pitchers
- Gas relief products
- Changing pads

Sleeping:
- Swaddlers
- Bassinets
- Swings/vibrating bassinets
- Cribs
- Infant loungers/sleep positioners
- Sleep sacks without feet holes
- Sleeping mats
- Travel cribs
- Toddler beds
- Small pillows and blankets
- Crib/bassinet/ toddler bed mattresses
- Crib/Bassinet/ toddler bed sheets/pads

Transportation:
- Car seats- usually contain
- Strollers
- Hiking backpacks
- Front packs
- Baby wraps/slings