## Tips on using the Product Testing Database

#### How to understand the numbers

When you explore this data, keep in mind its limitations. Here are a few things to look for.

#### **Analysis value**

Labs report a number called the **analysis value** for each chemical it looks for in a sample. However, each chemical they look for isn't positively identified.

### **Reporting limit and detection**

Lab test methods can only *confidently* find, or detect, the amount of a chemical in a sample down to a level called the **reporting limit**. The reporting limit depends on the chemical, the instrument, the analysis method, and other factors. We've gotten better at detecting smaller amounts of chemicals in samples as technologies advance.

When labs can't detect a chemical above the reporting limit, they put the reporting limit value in the analysis value column. How do you know when this is the case?

#### **Data qualifiers**

Labs use standard letter codes called **data qualifiers** to tell you how to interpret analysis values. "U" is a common qualifier meaning a chemical wasn't detected in the sample above the reporting Limit. We call these "non-detects."

In Figure 1, the chemicals in the first two rows have no qualifier, meaning they were detected in the samples (at 2.21 and 1.2 ppm). The chemical in the third row has an analysis value of 1 ppm, but the U qualifier means it wasn't detected above the reporting limit of 1 ppm. The chemical *might* be in the sample, but not above this limit. For a complete list of data qualifiers, see Table 1 below.

| Chemi    | cal 🕣     | Product \$ Description                            | Component<br>Description                                  | Component<br>Material                                  | Brand               | Store     | Analysis Value 💠 | Qualifier                                               |
|----------|-----------|---------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------|---------------------|-----------|------------------|---------------------------------------------------------|
| Antimony | 7440-36-0 | Wind Up Bunny                                     | Wind Up<br>Bunny - Eyes                                   | Synthetic<br>Polymers -<br>Plastic                     | Walgreens           | Walgreens | 2.21 ppm         |                                                         |
| Antimony | 7440-36-0 | Old ID: TR082-<br>a00, 15 piece<br>Police Figures | Old ID:<br>TR082-c02,<br>torso of police<br>dog           | Historical<br>Record -<br>material was<br>not recorded | playmobil           | Toys R Us | 1.2 ppm          |                                                         |
| Antimony | 7440-36-0 | Old ID: AM034-<br>a00, Slimy Slugs                | Old ID:<br>AM034-c01,<br>yellow slime<br>(in plastic bag) | Historical<br>Record -<br>material was<br>not recorded | Horrible<br>Science | Amazon    | 1 ppm            | Analyte way not detected move the method eporting limit |

Figure 1: Example of data with and without Qualifiers.

Table 1: Data qualifiers - Product Testing Database

| Qualifier<br>Code | Description                                                                                                                                                                                                                                      |  |  |  |  |  |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| E                 | The chemical was found, but there is some uncertainty about the reported amount because the instrument was not calibrated with a high enough standard.                                                                                           |  |  |  |  |  |
| J                 | The chemical was found in the sample but there is some uncertainty about the reported amount. The uncertainty could be due to a range of factors, most often because one or more of the quality control tests were outside of acceptable limits. |  |  |  |  |  |
| N                 | There is some uncertainty regarding the identification of the chemical found but the amount reported is accurate.                                                                                                                                |  |  |  |  |  |
| NJ                | There is some uncertainty regarding both the identification of and amount of the chemical. These results should be used with caution.                                                                                                            |  |  |  |  |  |
| REJ               | Data are unusable for all purposes. Sample results rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.                       |  |  |  |  |  |
| U                 | The chemical was not found in the sample above the reporting limit. The amount shown in the Analysis Value is the reporting limit.                                                                                                               |  |  |  |  |  |
| UJ                | The chemical was not found in the sample above the reporting limit. This limit has some uncertainty to it.                                                                                                                                       |  |  |  |  |  |
| (blank)           | The absence of a code means the chemical was found in the amount shown without errors or concerns.                                                                                                                                               |  |  |  |  |  |

# How to see more info about each test

Each row of data in the results grid has more information about the product and the test. Click "View" in the "Detail" column.

| De  | tail      | Chemic   | cal 💿     | Product \$ Description                            | Component<br>Description                        | Component<br>Material                                  | Brand     | Store     | Analysis Value 💠 |
|-----|-----------|----------|-----------|---------------------------------------------------|-------------------------------------------------|--------------------------------------------------------|-----------|-----------|------------------|
| Vie | <u>ew</u> | Autimony | 7440-36-0 | Old ID: TR082-<br>a00, 15 piece<br>Police Figures | Old ID:<br>TR082-c02,<br>torso of police<br>dog | Historical<br>Record -<br>material was<br>not recorded | playmobil | Toys R Us | 1.2 ppm          |

Figure 2: Link to detail about a result.

On the Result Detail screen, see details about the product and the test, including pictures and a link to a published report (under "Collected for Study"). The report provides more context about what the results mean.

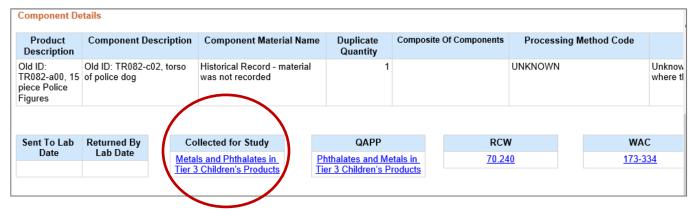


Figure 3: Result Detail screen, showing link to published report.