

## **PBT Profiler Case Study**

### **Eaton Aeroquip Inc.'s Experience In the Use and Application of the PBT Profiler for Predicting Persistence, Bioconcentration, and Toxicity of Chemical Substances. October 2004**

#### **Eaton Aeroquip Inc. Goals for this Case Study:**

- Use the PBT Profiler to evaluate chemicals associated with a chosen process.
- Incorporate the PBT Profiler into our process for evaluating new chemicals entering our facility.
- Incorporate the PBT Profiler into our current Environmental Management System (EMS).

#### **Purpose:**

Eaton Aeroquip Inc., Williamsport, MD facility wanted to evaluate the effectiveness of the PBT Profiler for incoming chemicals associated with new processes in our plant and to challenge the ease of incorporating the PBT Profiler into the scoring methodology of our internal Activities and Aspects worksheet.

#### **PBT Profiler Tool:**

Eaton Aeroquip Inc., Williamsport, MD facility has determined that the PBT Profiler is a user-friendly web-based computerized screening level tool for indicating the Persistence, Bioconcentration potential, and Toxicity profiles of concern. With no additional hardware or software to purchase, the PBT Profiler is a tool that can only lend positive results to our bottom line.

#### **In Using the PBT Profiler:**

Eaton Aeroquip Inc., Williamsport, MD found that:

- No additional hardware or software was needed
- Results of the PBT Profiler were virtually instantaneous
- The PBT Profiler is provided at no cost

#### **Studied Process:**

We have applied the PBT Profiler to two processes in our facility.

1. There are two chemicals associated with one of our extrusion processes. We ran both chemicals through the PBT Profiler with neither chemical shown to be a PBT. However, one chemical did show moderate concern for toxicity and we have added this chemical to the Activities and Aspects Worksheet and have established controls for its safe and proper use.
2. Four different Cutting Fluids were run through the PBT Profiler and although none of these cutting fluids were PBTs, there was one that raised a flag for exceeding the EPA's criteria for persistence. The Profiler information has created an opportunity to establish EMS procedures for the control of this cutting fluid.

**Results:**

Eaton Aeroquip Inc., Williamsport, MD will:

- Use the PBT Profiler as a first gate check for new chemicals and processes before they enter our facility.
- Incorporate the PBT Profiler into the scoring methodology of the Activities and Aspects worksheet that is part of our Environmental Management System.
- Run the PBT Profiler using CAS Registry Numbers from current MSDS for evaluation.

By using the PBT Profiler we can evaluate new chemicals and processes at the first gate of our Quote process, this assessment allows use to make a decisions on whether to search for alternative sources and/or suppliers. All chemicals that are accepted through this first gate process will be added to the Activities and Aspects Worksheet of our EMS. Using the PBT Profiler as part of the Scoring Methodology for determining Significant Aspects will enable our ISO 14001 Steering Committee to develop controls for the Significant Aspects that are associated with activities that use chemicals that may be PBTs. All chemicals that are PBTs, whether they score as Significant Aspects or not, will have Environmental Management System procedures as controls, chemicals that score as Significant Aspects will also have EMS procedures as controls and possibly Environmental Management Programs. EMPs allow our EMS Steering Committee to assign responsibilities to anyone that is associated with a Significant Aspect. Our SC also establishes Objectives and Targets for each EMP. EMPs are tracked and measured monthly, with the results shared in our monthly “All Plant Meetings”.

**Summary:**

The PBT Profiler is a cost effective, confidential, proactive environmental tool that creates opportunities for environmental improvements. Our plan is to share this tool within Eaton as a possible “Best Practice” for other facilities to follow.

**Acknowledgment:**

Eaton Aeroquip Inc. sincerely appreciates the opportunity that the EPA has provided to use, at no cost, the PBT Profiler.

If you have any questions concerning the Eaton Aeroquip Inc. case study, contact:

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