



Identifying Priority Chemicals for EPA Review

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An Agency Priority

“More than 30 years after Congress enacted the Toxic Substances Control Act, it is clear that we are not doing an adequate job of assessing and managing the risks of chemicals in consumer products, the workplace and the environment. It is now time to revise and strengthen EPA’s chemicals management and risk assessment programs.”



EPA Administrator, Lisa Jackson

Jan. 23, 2009

Enhanced Chemical Mgmt Efforts

- Program includes:
 - Getting the information needed to understand chemical risks.
 - Increasing public access to information about chemicals.
 - Targeting priority chemicals for action.
 - EPA has released ten chemical action plans that outline a range of risk management activities
 - Regulatory and other risk management actions.



Goal of Chemical Prioritization

- Identify highest priority chemicals to determine whether risk is significant and whether risk management or other action under TSCA is warranted.
 - For hazard, begin with those chemicals with extensively reviewed data indicating they are carcinogens, cause reproductive/developmental concerns, or are PBTs.
 - For exposure, begin with those chemicals to which children and/or the general population may be exposed.
- Release initial group of chemicals for priority review by late fall.
 - Early identification will provide interested parties an opportunity to provide additional relevant information to inform EPA's review.

Two-Step Prioritization Process

- **Step 1:** Identify priority chemicals for review
 - Identify an initial group of candidate chemicals for review by considering hazard and exposure priority factors.
 - Chemicals meeting at least one hazard and one exposure factor would become part of the initial group of priority chemicals for review.
- **Step 2:** Select priority chemicals for assessment
 - Use additional exposure and hazard data sources to further prioritize the chemicals
 - Select chemicals for review and assessment, including possible risk management action.

Step 1 Questions

- EPA would like public input on the prioritization factors:
 - Chemicals identified as potentially of concern for children’s health (e.g., chemicals with reproductive or developmental effects).
 - Chemicals identified as persistent, bioaccumulative, and toxic (PBT).
 - Chemicals identified as probable or known carcinogens.
 - Chemicals used in children’s products.
 - Chemicals used in consumer products.
 - Chemicals detected in biomonitoring programs.
- *What other factors, if any, should the Agency add, and why?*
- *Should any of the factors proposed by EPA not be used, and why?*

Step 1 Questions

- EPA would like to get public input on the data sources that the Agency intends to use to identify chemicals that meet one or more of the Step 1 priority criteria factors, including:
 - *Which other data sources, in addition to those listed in Table 1 below, should the Agency consider in order to identify chemicals that meet the listed factors? Why should such data sources be added?*
 - *For any additional priority criteria factors you might propose, what data sources should be considered to identify chemicals meeting those factors?*
 - *Should any of the data sources in Table 1 not be used, and why?*
 - *Should any factors or data sources receive greater weight than others, and why?*

Table 1: Data Sources for Overall Identification

PBT

- TRI PBT Rule
- Great Lakes Binational Toxics Strategy
- Canadian Categorization
- EPA Region 5 PBT Identification Project (Syracuse Research Corp.)
- Chemicals proposed to UNECE LRTAP POPs and Stockholm Convention on POPs

Carcinogenicity

- Integrated Risk Information System (IRIS)
- International Agency for Research on Cancer (IARC)
- National Toxicology Program (NTP)
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

Potential Children's Health Concern

- Voluntary Children's Chemical Evaluation Program
- California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
- IRIS
- NTP CERHR Monographs

Table 1: Data Sources for Overall Identification

Children's Product Use

- Washington State Children's Safe Product Act
- Inventory Update Reporting (IUR, 2006)

Consumer Product Use

- Inventory Update Reporting (IUR, 2006)
- National Institutes of Health (NIH) Hazardous Substances Data Bank
- Danish Consumer Product Studies

Human Biomonitoring

- National Health and Nutrition Examination Survey (NHANES)
- National Human Adipose Tissue Survey (NHATS)
- National Human Exposure Assessment Survey (NHEXAS)
- Total Exposure Assessment Methodology

Step 2 Questions

- EPA would like to get public input on the data sources that the Agency intends to use to further analyze the chemicals for review, including:
 - *Should additional data sources beyond those listed in Tables 2 and 3 below be included? What sources, and why?*
 - *Should any of the data sources listed in Tables 2 and 3 not be used? Why not?*
 - *Should certain data sources be considered more important in the Agency's analysis than others? Why or why not?*

Table 2: Exposure and Use Data

Uses

- Inventory Update Reporting (IUR)
- Pre-manufacture Notice (PMN) Database (confidential)
- High Production Volume (HPV) Challenge Submissions
- Screening Information Data Sets (SIDS) Documents
- National Institutes of Health (NIH) Household Product Database
- NIH Hazardous Substances Data Bank

Environmental releases

- Toxics Release Inventory (TRI)
- National Emission Inventory (NEI) Database U.S. EPA
- Preliminary Assessment Information Rule (PAIR)
- Organization for Economic Cooperation and Development (OECD) Emission Scenario
- NIH Hazardous Substances Data Bank

Table 2: Exposure and Use Data

General human exposures, including indoor air contaminants

- Children's Total Exposure to Persistent Pesticides and Other Persistent Organic Pollutants (CTEPP) Study
- Brown et al., *Indoor Air*, 4:123-134, 1994.
- Daisey et al., *Atmospheric Environment*, 28 (22): 3557-3562, 1994.
- Kelly et al., *Environmental Science & Technology*, 28(8): 378A-387A, 1994.
- NOPES Final Report, EPA/600/3-90/003 (NTIS PB90-152224), January 1990.
- Samfield, M.M. Indoor air quality data base for organic compounds.
- Govt. Reports Announcements & Index (GRA&I), Issue 12. EPA-600-R-92-025 (NTIS PB92-158468), 1992.
- Shah and Singh, *Environmental Science & Technology*, 2(12): 1381-1388, 1988.
- Sheldon et al., Indoor Pollutant Concentrations and Exposures, California Air Resources Board, Contract A833-156, Final Report, January 1992.
- Shields, et al., *Indoor Air*, 6:2-17, 1996.

Table 2: Exposure and Use Data

Environmental Exposures

- Contaminant Exposure and Effects-Terrestrial Vertebrates database (CEE-TV)
- EPA Environmental Monitoring and Assessment Program (EMAP)
- EPA's Databases on Monitoring and Assessing Water Quality
- List of Drinking Water Contaminants and their Maximum Contaminant Levels (MCLs)
- National Air Quality System (AQS) U.S. EPA
- National Contaminant Occurrence Database (NCOD) U.S. EPA
- Current National Recommended Water Quality Criteria U.S. EPA
- National Water-Quality Assessment Program (USGS NAWQA)
- EPA Fish Tissue Studies
- National Sediment Inventory (NSI) Tissue Data
- National Status and Trends Program (NSTP)
- National Stream Quality Accounting Network (NASQAN) Surface Water and Sediment Data U.S.G.S.

Table 2: Exposure and Use Data

Worker Exposures

- Inventory Update Reporting and Chemical Data Reporting (IUR/CDR)
- National Occupational Exposure Survey (NOES)
- Occupational Safety and Health Administration (OSHA) monitoring studies
- Preliminary Assessment Information Reporting (PAIR)
- OECD Emission Scenario Documents
- NIH Hazardous Substances Data Bank

Table 3: Hazard Data

National Library of Medicine Databases

- Biomedical Citations From PubMed
- Toxicology Citations From PubMed
- Registry of Toxic Effects of Chemical Substances (RTECS)
- NLM TOXLINE on TOXNET
- Agency for Toxic Substances and Disease Registry (ATSDR)
- Medical Management Guidelines
- ATSDR Public Health Statements
- ATSDR Toxicological Profiles
- ATSDR ToxFAQS

TSCATS – The Toxic Substance Control Act Test Submission Database

USEPA – Office of Pesticide Programs Reregistration and Inerts Databases

USEPA – Ambient Water Quality Criteria Documents

USEPA – Drinking Water Standards Health Effects Support Documents

USEPA – ECOTOX Database

IPCS Concise International Chemical Assessment Documents (CICADs)