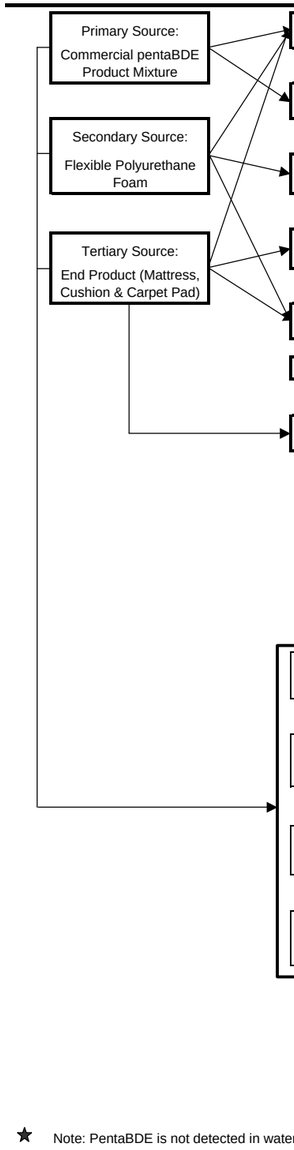
**Figure 3-3. Specific conceptual exposure model indicating the specific receptor and exposure pathways considered in the Tier 1 assessment.**




| Sources | Primary Release Mechanism | Secondary Release Mechanism | Exposure Media | Exposure Route | RECEPTORS: Primary & Chain-of-Commerce Manufacturing Exposure: Primary Exposure (Drummer & Cleaner) | Foam Manufacturer (Mixer & Cutter) | End Product Manufacturer (Mattress, Cushion, Furniture & Carpet Pad) | Carpet Installer | Distributor (Covered & Uncovered) | Recycler | Worker's Child | Exposures in the Indoor Home / Office / School Environment: Child | Adult | Exposure to Ambient Environmental Levels: Child | Adult | Adult Angler (Marine & Freshwater) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primary Source: Commercial pentaBDE Product Mixture | Volatilization | | | Inhalation of Vapors | X | X | X | X | X | X | -- | -- | -- | -- | -- | -- |
| Secondary Source: Flexible Polyurethane Foam | Drumming & Cleaning Activities | | | Dermal Contact | X | X | X | X | X | X | -- | -- | -- | -- | -- | -- |
| | | | | Incidental Ingestion | X | X | X | X | X | X | -- | -- | -- | -- | -- | -- |
| | Foam Mixing & Cutting Activities | Adherence to Clothing | Dirty Laundry | Dermal Contact | X | X | X | X | X | X | X | -- | -- | -- | -- | -- |
| | | | | Incidental Ingestion | X | X | X | X | X | X | X | -- | -- | -- | -- | -- |
| Tertiary Source: End Product (Mattress, Cushion & Carpet Pad) | End Product Manufacture | Adherence to Shoes | Dirty Floors | Dermal Contact | X | X | X | X | X | X | X | -- | -- | -- | -- | -- |
| | | | | Incidental Ingestion | X | X | X | X | X | X | X | -- | -- | -- | -- | -- |
| | Distribution (Foam & End Product) | | | | | | | | | | | | | | | |
| | Recycling | | | | | | | | | | | | | | | |
| | Purchase & Use of End Product | Mechanical Poofing | Indoor Air | Inhalation of Particulates | -- | -- | -- | -- | -- | -- | -- | X | X | -- | -- | -- |
| | | | | Ingestion of Swallowed Particulates | -- | -- | -- | -- | -- | -- | -- | X | X | -- | -- | -- |
| | | | Indoor Dust | Dermal Contact | -- | -- | -- | -- | -- | -- | -- | X | X | -- | -- | -- |
| | | | | Incidental Ingestion | -- | -- | -- | -- | -- | -- | -- | X | X | -- | -- | -- |
| | | Mouthing Behavior | Saliva | Ingestion | -- | -- | -- | -- | -- | -- | -- | X | -- | -- | -- | -- |
| | Effluent Discharge | | | | | | | | | | | | | | | |
| | Waste Incineration | | | | | | | | | | | | | | | |
| | Landfill Disposal | | | | | | | | | | | | | | | |
| | Sewage Sludge | | | | | | | | | | | | | | | |
| | | Volatilization | Ambient Air | Inhalation of Particulates | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | | | Ingestion of Swallowed Particulates | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | Leaching | | | | | | | | | | | | | | |
| | | Surface Runoff | Soil | Dermal Contact | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | | | Incidental Ingestion | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | Erosion | | | | | | | | | | | | | | |
| | | Sedimentary | Fish | Consumption | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | Food Chain Transfer | | Additional Consumption by Anglers | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | X |
| | | | Other Food (Meat, Dairy, Fats and Oils, Eggs & Vegetables | Consumption | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | X | -- |
| | | | Breast Milk | Consumption | -- | -- | -- | -- | -- | -- | -- | -- | -- | X | -- | -- |
| | | | Drinking Water | Consumption | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

★ Note: PentaBDE is not detected in water