



What are Brominated Flame Retardants (BFRs)?

Substances or chemicals added to many consumer products to reduce flammability from starting or to slow the spread of fire (Note: these do not make the materials non-flammable).

In some cases, these chemicals have been found to cause serious harm to humans, especially in children and can impair the body's ability to function.



Polybrominated Diphenyl Ether (PBDEs)

Man-made chemicals used as flame retardants. The release of PBDEs into the environment can occur during their production, use and/or disposal.

They may be found in the following parts of several items used in the Caribbean:

- The plastic casings of some electronics such as Cathode Ray Tubes (CRT) in TVs and PCs (manufactured pre-2004).
- Polymer plastics like Acrylonitrile Butadiene Styrene (ABS).
- Plastics and foams of vehicles (vehicles manufactured pre-2004)
- Polyurethane (PUR) foam from furniture imported (new and used) from the United States and Canada.

Hexabromocyclododecane (HBCD)

Hexabromocyclododecane (HBCD) is a toxic chemical that has been used as a flame retardant in foam, building, insulation, and other products for many years. Although it is being phased out, this legacy use combined with other ongoing uses creates a toxic reservoir of HBCD that may be released into the environment and harm people's health.



Why Protect Yourself?

The main routes of human exposure to Brominated Flame Retardants are the ingestion of contaminated indoor dust at home and in the workplace.

Foods, particularly fats from fish, meat, poultry and dairy can also pose a risk due to bioaccumulation of these chemicals within the animal's tissues. Small amounts of PBDEs have also been detected in a wide variety of plant-based foods.

Together we can be free of

PBDEs & HBCD

Contact the following near you for support on combatting these pollutants.



Environmental Management Authority

Waste Management Agency

Local Recyclers



Learn More Today! stopthepops.com

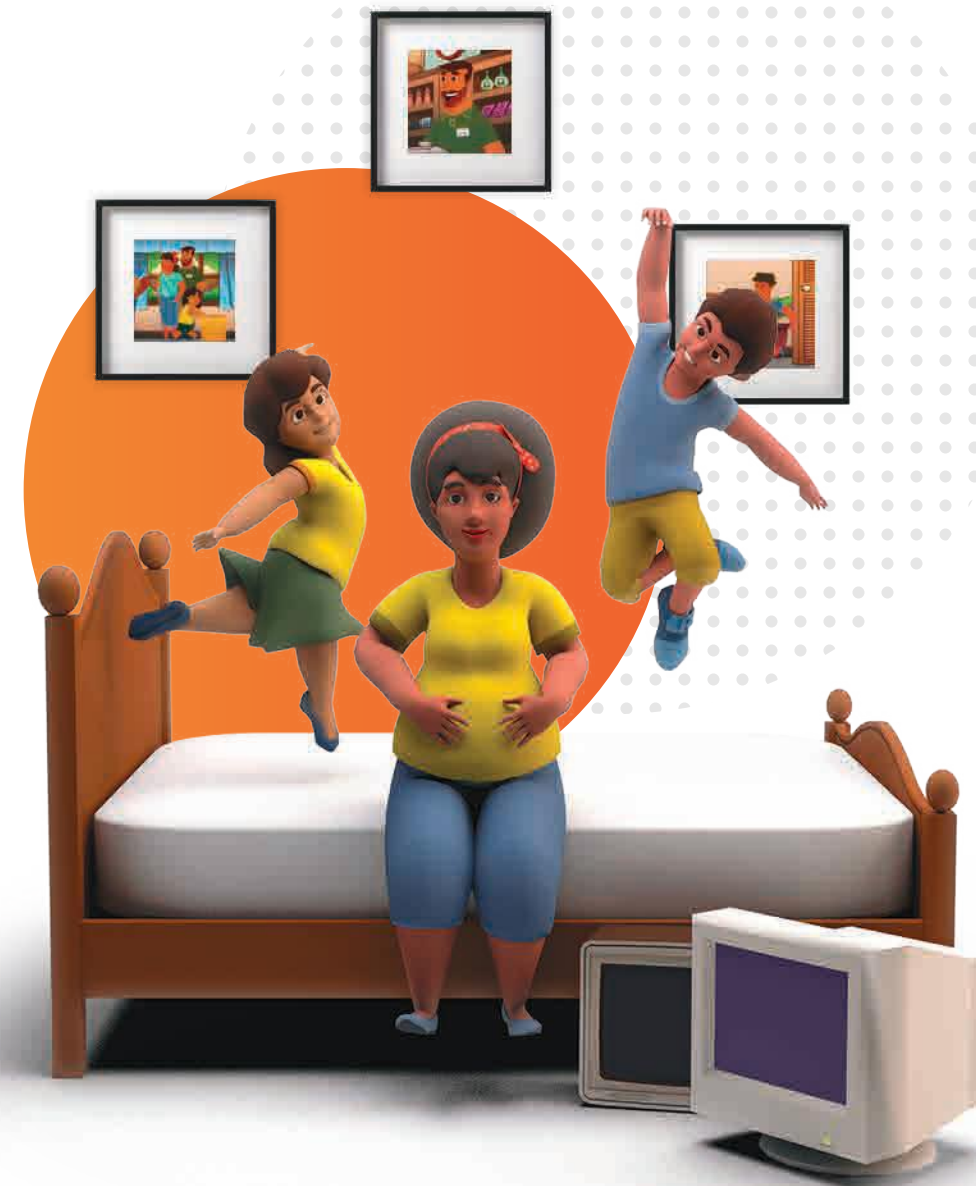


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Safeguard your family from the dangers of

BROMINATED FLAME RETARDANTS SUCH AS

PBDEs & HBCD



At and around your household, you and your family may be exposed to a variety of **Persistent Organic Pollutants (POPs)** including the **Brominated Flame Retardants: PBDEs & HBCD**.

Common Exposure Pathways

Watch out for the following points of contact in or around your household as they may contain PBDEs or HBCD.



Electrical Materials / Waste Electrical & Electronic Equipment (WEEE)

Direct contact with electrical products or materials treated with Brominated Flame Retardants can lead to an increased risk in chemical exposure.

Improperly disposed or burnt WEEE can lead to the harmful emissions.



Meat from Contaminated Animals

POPs are lipophilic (fat-loving) and as such they accumulate in the fatty tissues of animals. When we eat these contaminated food sources, we may expose ourselves to high concentrations of POPs.



End of Life Vehicles

Improper disposal and dismantling of older vehicles (manufactured pre-2004) can lead to the release and inhalation of contaminants.



Food Packaging

The consumption of food stored in polystyrene articles may expose you to HBCD.



Electronics

Improper dismantling of these BFR treated WEEE electronic components (treated with Brominated Flame Retardants) can lead to the inhalation of contaminated dust.



Furniture

Torn or damaged furniture (such as carpets, drapes, mattresses that are treated with flame retardants such as PBDEs) can lead to the inhalation of contaminated dust.



Insulation Foam in Buildings

The use of HBCD in some insulation presents the potential for the release of contaminated particles into the environment.

STOP THE POPS!

Identify, Learn & Act!



The truth is, danger lurks where you least expect it.

Understanding the dangers of BFRs

Identify

The sources and uses of POPs/UPOPs.



Learn

How you and your family are exposed and affected.

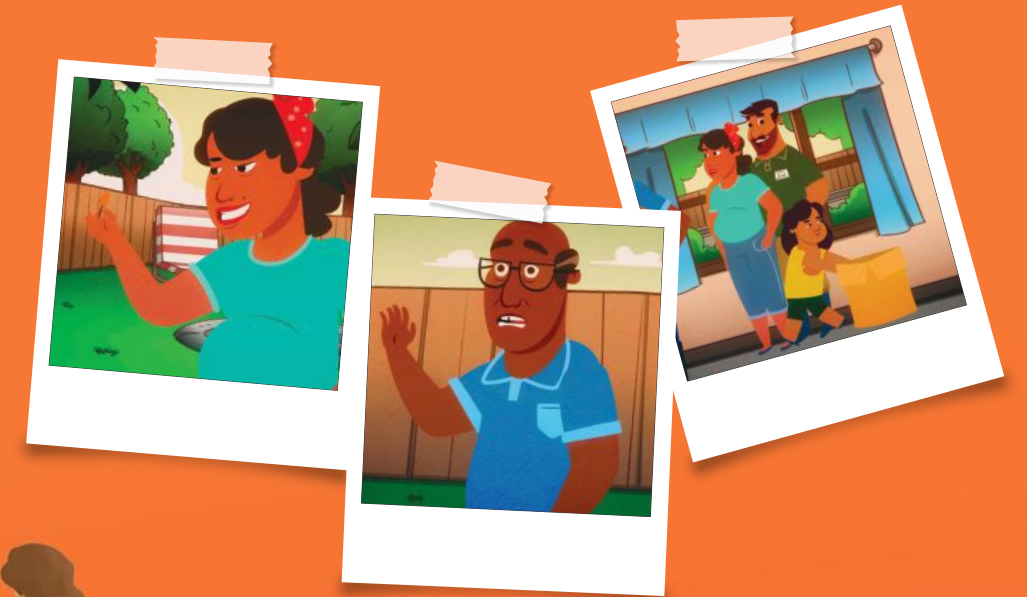


Act

By minimising your exposure.

www.stopthepops.com

How To Reduce Exposure



Follow these tips to protect yourself

- ✓ Choose consumer goods that are less likely to contain brominated flame retardants.
- ✓ Consider using alternative food packaging such as bio-based food packaging.
- ✓ Cook meats in a way that allows the fat to drain off to reduce ingestion of lipophilic (fat-loving) chemicals such as PBDEs.
- ✓ Use moist cloths and a vacuum with a HEPA filter to reduce the circulation of PBDEs and other contaminants, which may be present in dust particles and on surfaces.
- ✓ Manage and dispose of components and materials in a manner that protects human health and the environment.
- ✓ Remove electronic devices from waste streams destined for disposal in landfills or incinerators.
- ✓ Avoid indiscriminate dumping and scrapping of older vehicles.
- ✓ Reduce direct exposure to potentially contaminated insulation by repairing areas of exposure as soon as possible.