

CAMPAIGN FOR Healthier Solutions



TOXIC CHEMICALS IN DOLLAR STORE PRODUCTS: 2022 REPORT

Discount retailers continue to push toxic superheroes,
food packaging, cookware and electronics



EXECUTIVE SUMMARY

The Campaign for Healthier Solutions a project of the Coming Clean and the Environmental Justice and Health Alliance commissioned The Ecology Center Healthy Stuff Lab to conduct a screening of consumer products sold at discount retailers, also known as dollar stores. The target retailers include Dollar Tree, Family Dollar, Dollar General, Five Below and 99 Cents Only Stores. This report presents a summary of the results of the testing and highlights select products with hazardous chemicals of concern.

Sample Collection: In early 2021, 226 products were purchased from all of the leading dollar store retailers in the US and Canada. Products were purchased from seven states (Michigan, Pennsylvania, California, New Mexico, Washington, Maine, Texas) and Ontario, Canada. Products tested included 226 consumer products, 33 cans of food, and 22 packages of microwave popcorn. Receipts from 28 store purchases were also tested. The 226 products contained a total of 635 unique components or materials. Each of these were tested using one or more test methods, depending on the typical chemicals of concern for that product type. For food products, the packaging, not the food, was tested.

Chemicals of concern are those which, due to their inherent hazardous properties, present a known or reasonably suspected risk to human health and/or the environment. The levels of concern for each chemical were established by Healthy Stuff Lab by reviewing levels restricted in one or more of the most protective government, corporate, or third-party standards on hazards in consumer products.

These levels are similar to those used in our 2015 sampling of dollar store products.

You can access the 2015 report [here](#)

Products were subjected to 4 different analytical techniques:

High-definition X-ray fluorescence spectroscopy (HD XRF): 635 product components were screened for elements of interest by HD XRF using an HD Mobile spectrometer by XOS. This technique measures levels of elements heavier than aluminum on the periodic table. This includes toxic metals such as lead and cadmium as well as bromine, chlorine, and phosphorus that, depending on the matrix, can indicate flame retardant chemicals.

Fourier Transform Infrared (FTIR) spectroscopy: A subset of components were analyzed by FTIR to determine the polymer type (for example, cotton or polyethylene) and major additives. A subset were also subject to solvent extraction followed by FTIR to test for the presence of additives such as plasticizers or flame retardant chemicals.

Gas Chromatography/Mass Spectrometry (GC/MS) Analysis: Eleven products determined to contain ortho-phthalates (“phthalates”) or alternative plasticizers according to our FTIR screening were sent for further analysis at Eurofins, a contract laboratory. Eurofins quantified phthalates by following the CPSC test method CPSC-CH-C1001-09.4. The method uses solvent extraction followed by internal standard addition and analysis of the extract by gas chromatography-mass spectrometry (GC-MS) for phthalates and other plasticizers of interest. The lab tested for eleven phthalates and four alternative plasticizers.

Total Fluorine by Oxygen Flask Combustion and Ion-Selective Electrode: Select food packaging was evaluated for possible PFAS presence at Galbraith Laboratories by measuring total fluorine. This method detects fluorine from both polymeric and non-polymeric PFAS and thus is used to screen items for likely PFAS.

Threshold Levels, in parts per million

Arsenic > 100	Bromine > 400	Cadmium > 100	Chlorine > 10,000	Chromium > 100	Mercury > 100	Lead > 100	Antimony > 100	Tin > 100
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CHEMICAL HAZARD SCREENING SUMMARY

The preliminary screening results for products indicate a number of chemical hazards are present in these products. **Overall, one-half (53%) of the products screened had one or more chemicals of concern.**

The following concerns were identified in the products which were tested.

- Canned food products with toxic interior can coatings, including BPA-based epoxy and PVC can body coatings
- Pans and cookware coated with PTFE (a PFAS coating) and BPA-based epoxy
- Microwave popcorn products with PFAS coatings inside the packaging. 100% of microwave popcorn tested positive for PFAS coatings
- Bisphenol S in 100% of store receipts tested from all retailers
- Products made with flexible PVC which had banned, regulated or inadequately studied plasticizers
- Consumer electronics with lead solder, flame retardants and phthalate plasticizers
- A variety of products which contained other chemicals of concern, including antimony compounds, organotins and bromine

Number of Products with Chemical of Concern (COC) Detected, above screening level

ALL PRODUCTS - US & CANADA RETAILED

Retailer	# Products	1 or more COC	Percentage
Five Below	38	25	66%
Family Dollar	37	18	49%
Dollar Tree	87	52	60%
Dollar General	32	12	38%
99 Cents Only Stores	32	13	44%
ALL - 2021	226	120	53%
ALL – 2015 Report	164	132	80%

US RETAILED PRODUCTS

Retailer	# Products	1 or more COC	Percentage
Five Below	38	25	66%
Family Dollar	37	18	49%
Dollar Tree	67	40	61%
Dollar General	32	12	38%
99 Cents Only Stores	32	13	41%
ALL	206	108	53%

CANADA RETAILED PRODUCTS

Retailer	# Products	1 or more COC	Percentage
Dollar Tree	20	12	60%

Note: This data is preliminary and subject to change as further analysis of these products is completed.



FIVE BELOW PRODUCT HIGHLIGHTS

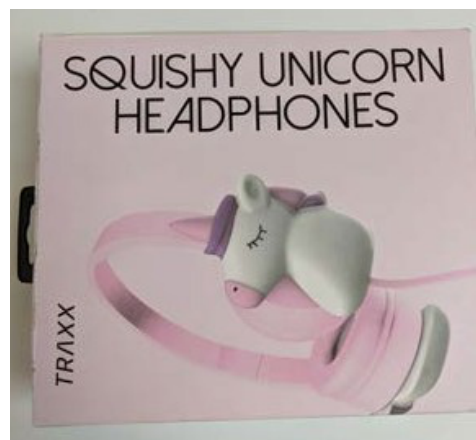
DISNEY FROZEN II HAIR SET ASSEMBLY

Retailer: Five Below
Brand/Distributor: Townley
UPC: 1956542666
Retailer State: Maine
Chemicals of concern: PVC components (>50% chlorine), Ortho Phthalate plasticizer



SQUISHY UNICORN HEADPHONES

Retailer: Five Below
Brand/Distributor: Traxx, 1616 Holdings, Inc.
UPC: 9223406267
Retailer State: California
Chemicals of concern: Ortho Phthalate plasticizer



DISNEY PRINCESS KIDSAFE WIRELESS HEADPHONES, AGES 6+

Retailer: Five Below
Brand/Distributor: Disney, 1616 Holdings, Inc.
UPC: 9223406245
Retailer State: Maine
Chemicals of concern: TDCIPP (chlorinated tris) flame retardant in earphone foam, 65.6% (656,000 ppm) lead in solder



MINNIE MOUSE HEADPHONES

Retailer: Five Below

Brand/Distributor: Disney, 1616 Holdings, Inc.

UPC: 9223401735

Retailer State: Michigan

Chemicals of concern: PVC components (>50% chlorine), Ortho Phthalate plasticizer, TCPP flame retardant, 56% (560,623 ppm) lead in solder



MARVEL AVENGERS KID SAFE HEADPHONES

Retailer: Five Below

Brand/Distributor: 1616 Holdings, Inc

UPC: 9223405437

Retailer State: Michigan

Chemicals of concern: PVC components (>50% chlorine), trichlorophenyl phosphate (TCPP) flame retardant, 38%(381,869 ppm) lead in solder



SUPERMAN HEADPHONES

Retailer: Five Below

Brand/Distributor: Sakar

UPC: 2133180826

Retailer State: Michigan

Chemicals of concern: PVC components (>50% chlorine), Ortho Phthalate plasticizer, trichlorophenyl phosphate (TCPP) flame retardant, 61% (612,081 ppm) lead in solder



DISCO COLOR CHANGING BATH LIGHT

Retailer: Five Below
Brand/Distributor: Xtreme Tech, JemAccessories
UPC: 0510622354
Retailer State: Michigan
Chemicals of concern: Ortho Phthalate plasticizer, 45.6% (456,455 ppm) lead in solder



CAMPBELL'S CHICKEN & STAR SHAPE PASTA

Retailer: Five Below
Brand/Distributor: Campbell's
UPC: 5100015076
Chemicals of concern: PVC copolymer can coating



PURCHASE RECEIPTS

Retailer: Five Below
UPC: N/A
Retailer State: Multiple
Chemicals of concern: All receipts tested positive for Bisphenol S





DOLLAR TREE & FAMILY DOLLAR PRODUCT HIGHLIGHTS

COOKING CONCEPTS PIZZA PAN

Retailer: Dollar Tree

Brand/Distributor: Cooking Concepts

UPC: 3927715283

Retailer State: Michigan

Chemicals of concern: BPA-based epoxy based non-stick coating



COOKING CONCEPTS CAKE PAN

Retailer: Dollar Tree

Brand/Distributor: Cooking Concepts

UPC: 3927715283

Retailer State: Michigan

Chemicals of concern: BPA-based epoxy based non-stick coating



FAMILY CHEF 10-INCH FRY PAN NON-STICK

Retailer: Family Dollar

Brand/Distributor: Family Chef

UPC: 32251294525

Retailer State: Michigan

Chemicals of concern: PTFE (PFAS) based non-stick coating



FUNNY TEETH

Retailer: Dollar Tree
Brand/Distributor: Joking Around, Green-brier International, Inc.
UPC: 3927772533
Retailer State: Ontario, Canada
Chemicals of concern: PVC components (>50% chlorine), DOTP plasticizer.



KIDS MUSICAL TOY CAR

Retailer: Dollar Tree
Brand/Distributor: Kidgets, Midwood Brands, LLC
UPC: 3225157309
Retailer State: Texas
Chemicals of concern: 17.4% (174,000 ppm) lead in solder



VIVITAR KIDSAFE STEREO HEADPHONES

Retailer: Family Dollar
Brand/Distributor: Vivitar, Skar International
UPC: 8106648531
Retailer State: Texas
Chemicals of concern: 2.2% lead (22,000 ppm) in solder; PVC cable insulation and coated fabrics with DOTP plasticizers



AUDIO CABLE WITH CARRYING CASE

Retailer: Dollar Tree

Brand/Distributor: Greenbrier International

UPC: 3927789219

Retailer State: Michigan

Chemicals of concern: PVC components (>50% chlorine), Phthalate and DOTP plasticizers



EARBUDS

Retailer: Dollar Tree

Brand/Distributor: E-circuit, Greenbrier International, Inc.

UPC: 3927755468

Retailer State: Michigan

Chemicals of concern: PVC components (>50% chlorine), DOTP plasticizer, 14.1% (141,000 ppm) lead in solder



POP WEAVER BUTTER MICROWAVE POPCORN

Retailer: Dollar Tree

Brand/Distributor: Pop Weaver

UPC: 4166702929

Retailer State: Texas

Chemicals of concern: 353 ppm Total Fluorine (PFAS grease-proof coating present)



DOLLY MIXED VEGETABLES

Retailer: Dollar Tree
 Brand/Distributor: Dolly
 UPC: 3913957419
 Chemicals of concern: BPA-based epoxy



DEERFIELD MIXED VEGETABLE

Retailer: Dollar Tree
 Brand/Distributor: Deerfield
 UPC: 5306900571
 Chemicals of concern: BPA-based epoxy



PURCHASE RECEIPTS

Retailer: Dollar Tree and Family Dollar
 UPC: N/A
 Retailer State: Multiple
 Chemicals of concern: All receipts tested positive for Bisphenol S



**DOLLAR
GENERAL®**

DOLLAR GENERAL PRODUCT HIGHLIGHTS

ORVILLE REDENBACHER'S POPCORN

Retailer: Dollar General

Retailer State: California

Chemicals of concern: 625 PPM Total Fluorine
(PFAS grease-proof coating present)



TRUE LIVING 9 IN. ROUND CAKE PAN

Retailer: Dollar General

UPC: 7286701468

Retailer State: Michigan

Chemicals of concern: PTFE (PFAS Fluoro-polymer)
+ PES (Polyethersulfone)



WACKY LIPS

Retailer: Dollar General

UPC: 7565601355

Retailer State: California

Chemicals of concern: PVC (>50% chlo-rine),
DOTP Plasticizer



CLOVER VALLEY SHREDDED WHITE CHICKEN

Retailer: Dollar General
Brand/Distributor: Clover Valley, Old East Main Co.
UPC: 1972216724
Retailer State: California
Chemicals of concern: PVC copolymer coating on interior of the can



EVOLUTION NON-STICK FRY PAN SET

Retailer: Dollar General
UPC: 635928028104
Retailer State: Michigan
Chemicals of concern: BPA-based Epoxy Coating



PURCHASE RECEIPTS

Retailer: Dollar General
UPC: N/A
Retailer State: California
Chemicals of concern: All receipts tested positive for Bisphenol S





99 CENTS ONLY STORES PRODUCT HIGHLIGHTS

NOISE REDUCING COLOR EARBUDS

Retailer: 99 Cents Only Stores

Brand/Distributor: Momentum Brands

UPC: 7641611875

Retailer State: California

Chemicals of concern: PVC components (>50% chlorine), Ortho Phthalate plasticizer, 18.3% (183,000 ppm) lead in solder



ACT II, BUTTER LOVER MICROWAVE POPCORN

Retailer: 99 Cents Only Stores

Brand/Distributor: Act II

UPC: 7615023258

Retailer State: California

Chemicals of concern: 473 ppm Total Fluorine (PFAS grease-proof coating present)



Summer is Inside Tomato Paste

Retailer: 99 Cents Only Stores

Brand/Distributor: Summer is Inside

UPC: 7393415078

Retailer State: California

Chemicals of concern: PVC copolymer can coating



POLAR CANNED SARDINES

Retailer: 99 Cents Only Stores
Brand/Distributor: MW Polar Foods
UPC: 7402700167
Retailer State: California
Chemicals of concern: BPA-based epoxy can coating



LIBBY'S CHICKEN VIENNA SAUSAGE

Retailer: 99 Cents Only Stores
Brand/Distributor: Libby's
UPC: 3900008669
Retailer State: California
Chemicals of concern: PVC copolymer can coating



PURCHASE RECEIPTS

Retailer: 99 Cents Only Stores
UPC: N/A
Retailer State: Multiple
Chemicals of concern: All receipts tested positive for Bisphenol S



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CAMPAIGN FOR HEALTHIER SOLUTIONS ANCHOR GROUPS

Los Jardines Institute – Albuquerque, New Mexico
Líderes Campesinas – Oxnard, California
Harambee House – Savannah, Georgia

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Physicians for Social Responsibility-LA – Los Angeles, California
Learning Disabilities Association of Maine – Windham, Maine
Environmental Defence Canada – Toronto, Canada
Clean Production Action

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