

TOXIC CASH RECEIPTS

Presence of Bisphenol A (BPA) in
thermal paper and some of food
contact materials



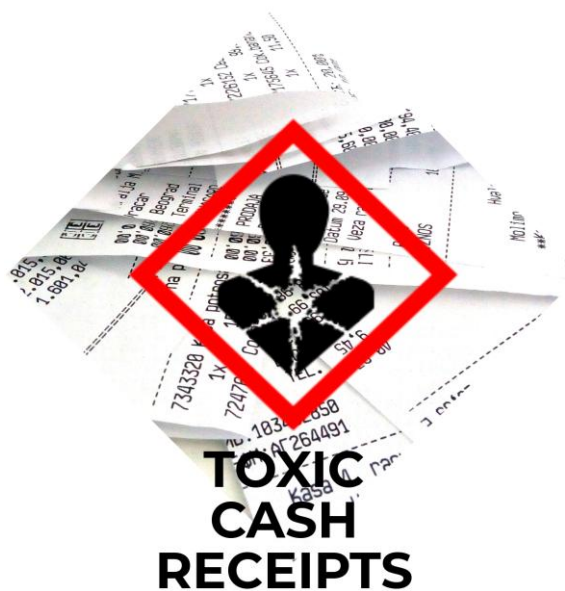
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ABOUT CAMPAIGN

This research is an extension of ALHem's activities related to monitoring of use and presence of dangerous chemicals in products placed on the market of the Republic of Serbia, and of practical implementation of regulations which enable informing the consumers about the content of such a chemicals in products. An earlier research was conducted in the period between October 2015 and April 2016 within the campaign **"The Fight to Know!"** which was a part of the project "Strengthening Capacities and Strategic Partnership for Safe Chemicals Management in the Republic of Serbia"¹. On that occasion, products for general use were tested for presence of chemicals belonging to phthalate group.

Testing the products for campaign **TOXIC CASH RECEIPTS**, implemented from July to September 2017, comprised samples of thermal paper, cardboard and plastic packaging for food on presence bisphenol A.

Campaign **TOXIC CASH RECEIPTS** was a result of our intention to draw public attention to presence of bisphenol A in thermal papers, primarily in fiscal receipts and banking slips, with which we are in contact every day. Taking into account that at the European market there are suppliers of this paper which does not contain this dangerous chemical, we call upon institutions from state and public sectors, as well as upon companies from private sector, especially upon trade chains, to replace this produce with safer alternative free of bisphenol A, so as to contribute to health protection of their staff, but also of all citizens of Serbia.



¹ The project was implemented by the Ministry of Agriculture and Environmental Protection, with technical support of the United Nations Development Programme (UNDP) and financial support of "SAICM Quick Start Programme Trust Fund", and in cooperation with Civil Society Organisations: Safer Chemicals Alternative (ALHem) and Women in Europe for a Common Future (WECF).

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INTRODUCTION

Bisphenol A (BPA) is at the moment one of most commercial chemicals at global scale. This chemical is used in production of thermal papers as a chemical solution for dye. BPA is not chemically bound to paper, so in contact with skin, it migrates into the skin, and is absorbed. BPA is also used in production of polycarbonated plastic (recycling code 7), epoxy resins as internal coating for food and beverage cans, but also in a number of other products, such as CD and DVD discs, motherboards, paints and varnishes.

This chemical is proved to be harmful for fertility, disruptive for endocrine system, it can cause allergic reactions on skin and respiratory irritation, and it can lead to serious eye damage.



This campaign is financially supported by the Royal Norwegian Embassy in Belgrade www.norveska.org



Since January this year, BPA has been on the Candidate List of Substances of Very High Concern (SVHC) in the European Union, taking into account it was proved to be harmful for fertility and disruptive for endocrine system.

In December last year, the European Commission made a decision to ban, i.e. restrict use of bisphenol A in thermal paper, if concentration of the chemical equals or exceeds 0.02 mass %. This decision shall be applied as of 2 January 2020. The Republic of Serbia so far has not transposed this provision into the national legislation, but updating of the relevant regulation is expected in the coming period.

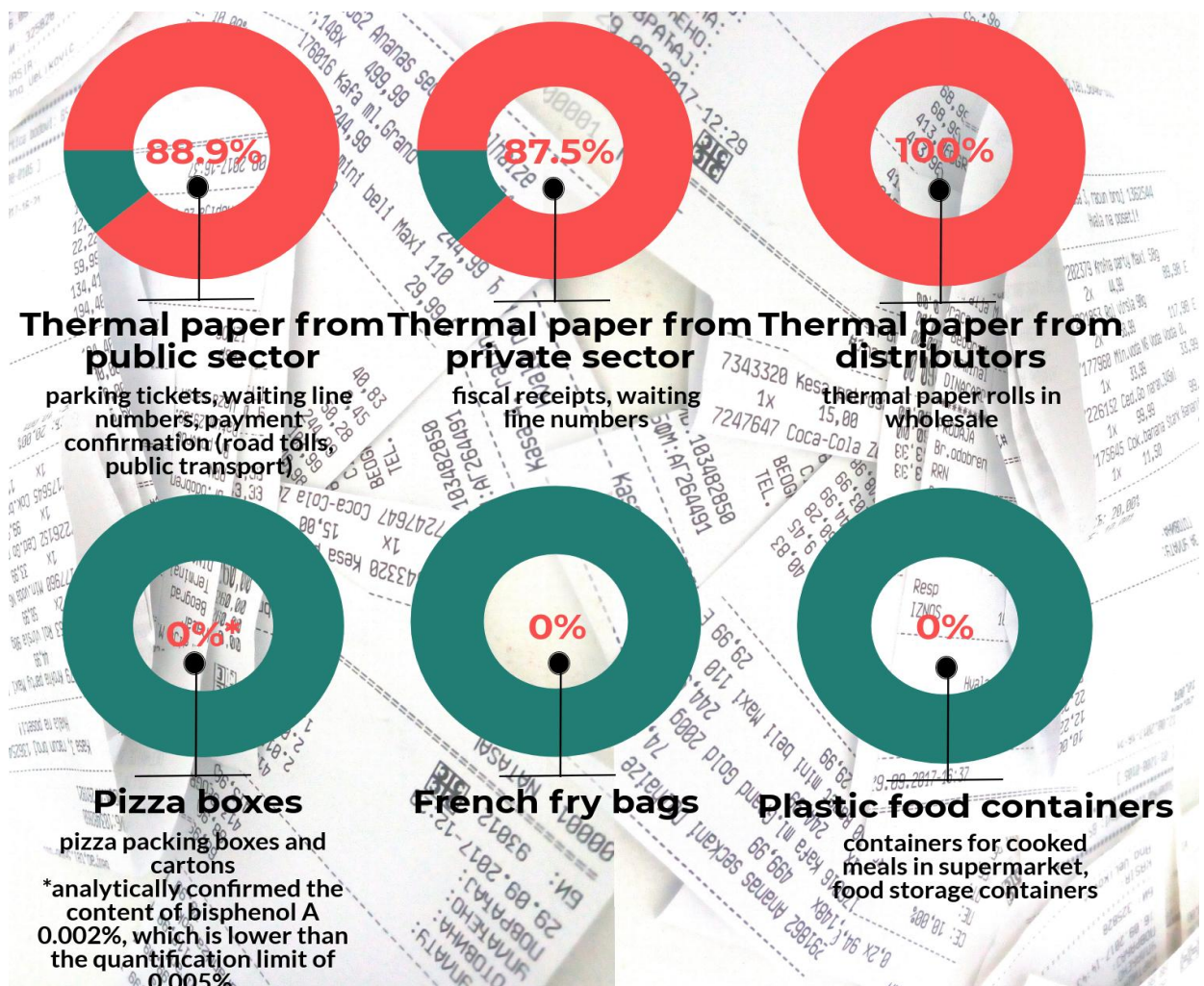
BPA, as substance of very high concern, is subject to legal obligation for companies producing, importing or distributing products which contain this substance in concentrations above 0.1% to inform downstream users (i.e. other distributors of the product) about the presence of this substance in the product, as well as consumers at their request.

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KEY FINDINGS

This report contains results of tests conducted on thermal paper from public and private sectors, as well as on paper and plastic packaging for food on presence of BPA, comprising 33 samples, out of which: 20 thermal papers (fiscal receipts and other thermal papers from public and private sector), 6 plastic boxes for food and 7 paper packages for food.

Figure 1.
Percentage representation of positive samples per product type





The results indicate that all samples of imported fiscal rolls tested in laboratories were positive on the content of BPA. In addition, 87.5% of thermal paper from private sector and 88.9% of thermal paper (fiscal receipts) from public sector contains this chemical. BPA is present in samples in the range of 0.63 and 0.91% (figure 1).


Table 1: Product testing results in thermal paper

Samples	sampling site/distributor	BPA (%)
thermal paper from public sector (9) 8/9 	Post of Serbia - payment confirmation	0,69 ± 0,07
	The Serbian Business Registers Agency - waiting line number	0,65 ± 0,06
	Public garage Oblilicev Venac - ticket	<0,005
	Pension & Disability insurance fond - waiting line number	0,63 ± 0,06
	City Municipality of Novi Beograd - waiting line number	0,86 ± 0,09
	Public garage Oblilicev Venac - fiscal receipt	0,77 ± 0,08
	Roads of Serbia - road toll conformation	0,74 ± 0,07
	National Employment Service - waiting line number	0,73 ± 0,07
	Public transport Bus Plus - payment conformation	0,74 ± 0,07
thermal paper from private sector (8) 7/8 	McDonalds Belgrade	0,72 ± 0,07
	McDonalds Pančevo	0,69 ± 0,07
	Caribic Pizza Belgrade	0,70 ± 0,07
	Big Pizza Belgrade	0,85 ± 0,08
	Big pizza Zrenjanin	0,83 ± 0,08
	KFC Belgrade	0,80 ± 0,08
	IKEA Belgrade	<0,005
	Banca Intesa waiting line number	0,87 ± 0,09
thermal paper distributors of fiscal rolls (3) 3/3 	Bookstore Etno Pavlović	0,81 ± 0,08
	Glattex company	0,84 ± 0,08
	Vnen company	0,91 ± 0,09

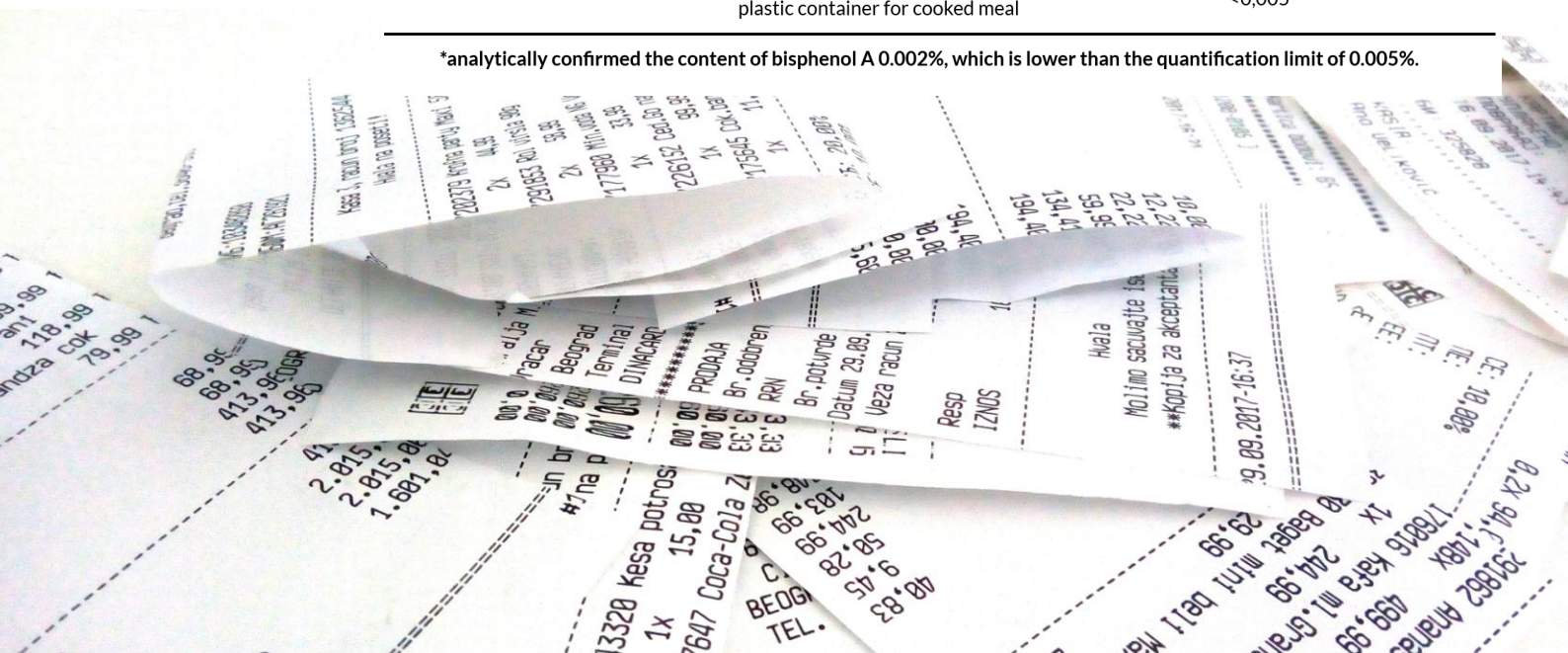
Taking into account that on European market there are suppliers of thermal paper free of this dangerous substance, ALHem hereby calls upon institutions from state and public sectors, as well as upon companies from private sector, especially upon trade chains, to replace this produce with safer alternative free of bisphenol A, so as to contribute to health protection of their staff, but also of all citizens of Serbia.

In this campaign, food packaging was also tested, primarily the one used for packing of fatty food. BAP is soluble in fats so it easily migrates from the packaging into food, which is corroborated by the data that greatest intake of this toxic chemical by humans is by peroral route, i.e. by food.

Table 2. Product testing results in paper and plastic food packaging

Samples	sampling site/distributor	BPA (%)
Pizza boxes (3) 3*/3 	Caribic Pizza Belgrade	0,002*
	Big Pizza Belgrade	0,002*
	Big pizza Zrenjanin	0,002*
French fry bags (4) 0/4 	McDonalds Belgrade	<0,005
	McDonalds Pančevo	<0,005
	KFC Belgrade Studentski trg	<0,005
	KFC Belgrade Ušće	<0,005
Plastic food containers (6) 0/6 	IKEA Belgrade food storage container	<0,005
	supermarket Aroma plastic container for cooked meal	<0,005
	supermarket Idea plastic container for cooked meal	<0,005
	Faktor company plastic container for cooked meal	<0,005
	Supermarket Maxi plastic container for cooked meal	<0,005
	Store Foody plastic container for cooked meal	<0,005

*analytically confirmed the content of bisphenol A 0.002%, which is lower than the quantification limit of 0.005%.

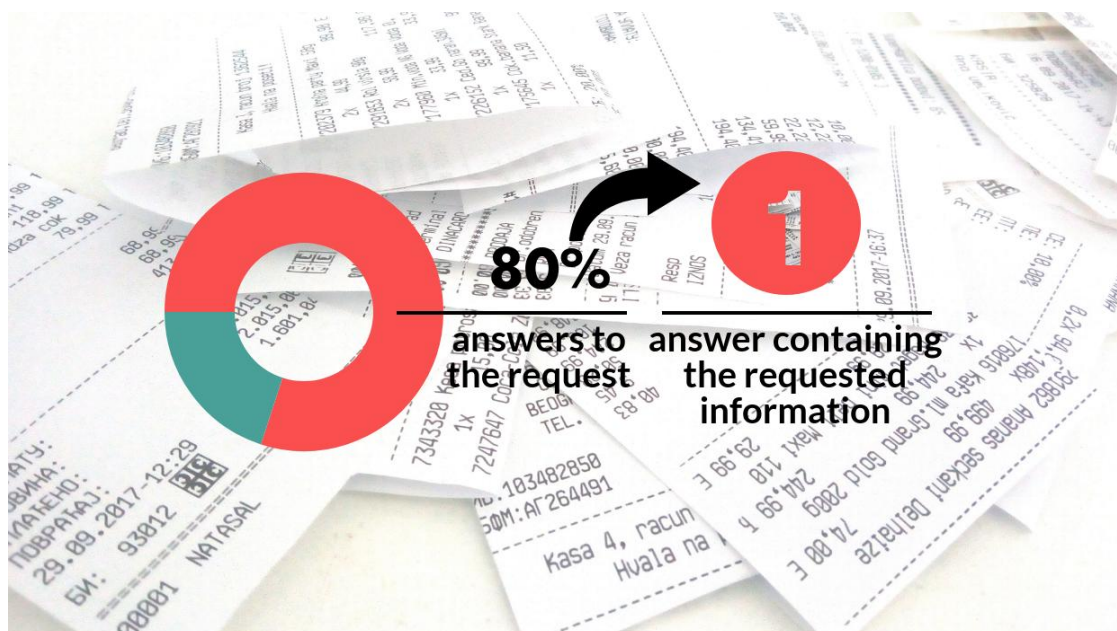


The obtained results indicate that tested plastic boxes for food from supermarkets do not contain BPA. When it comes to paper packaging, French fries bags do not contain BPA, while tested cardboard boxes contain BPA in traces.

These cardboard packages are made of recycled paper, so it can be assumed that thermal paper enters the recycling together with other paper waste, thus contaminating final products made of such recycled paper.

In addition, this campaign tested how the obligation to communicate information about Substances of Very High Concern in products is implemented in practice throughout supply chain. A request for information from consumers was sent to a certain number of distributors who are by law obligated to provide information about the presence of Substances of Very High Concern in produces they place on the market. Out of five sent requests, four responses were received, among them only one was in compliance with regulations (figure 3).

Figure 2.
Responsiveness to
the request for
information about
the content of SVHC
in product



These results indicate the necessity for raising awareness and knowledge of producers, importers and distributors on possibilities of presence of SVHC in wide array of products, and on obligations defined in national regulations, as well as on need for introduction of safer alternatives. In addition, it is necessary to encourage implementation of regulations through exercising the right of consumers to be informed about SVHC in products.

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CONCLUSION AND RECOMMENDATIONS

Test results from 33 samples have demonstrated that:

- **thermal papers for fiscal receipts imported to Serbia contain BPA;**
- **tested plastic containers for food do not contain BPA;**
- **cardboard packaging made of recycled paper is contaminated by BPA.** It can be assumed that thermal paper is not separated from other paper in recycling, which results in contamination of packaging with BPA.
- out of 5 sent requests for information on presence of SVHC in product, 4 answers were received, out of which only one was in compliance with regulations in place.

These results indicate the necessity for raising awareness and knowledge of producers, importers and distributors on possibilities of presence of SVHC in wide array of products, and on obligations defined in national regulations, as well as on need for introduction of safer alternatives. In addition, it is necessary to encourage implementation of regulations through exercising the right of consumers to be informed about SVHC in products. Namely, exercising this right, the consumers can also influence the producers, importers and distributors to take into account presence of SVHC as an important factor for chemical safety and competitiveness of products they place on the market. Consumers should be aware that producers, importers and distributors are obligated to provide the consumers with information, at their request, about the presence of SVHC in product in concentrations exceeding 0.1%. If, however, they do not receive the information they are entitled to pursuant to Article 27 of the Law on Chemicals (article 33, REACH), consumers should refer to competent environmental inspectorate so as to enable application of legal measures.



RECOMMENDATIONS

FOR PRIVATE SECTOR

PROCURE FISCAL ROLLS FROM THE SUPPLIER OF THERMAL PAPER FREE OF BPA (ASK FROM THE SUPPLIER A CERTIFICATE THAT PRODUCT IS FREE OF BPA)

ENSURE HEALTHY WORKING ENVIRONMENT FOR YOUR COUNTER STAFF, ALLOW THEM TO USE GLOVES AT WORK, IF THEY WISH SO

FOR CONSUMERS

ALWAYS WASH YOUR HANDS WITH SOAP AFTER THE CONTACT WITH FISCAL RECEIPT, ESPECIALLY BEFORE THE MEAL

PHOTOCOPY/SCAN RECEIPTS FOR PRODUCTS SUBJECT TO WARRANTY, print them or save them in electronic form

DO NOT PUT THE RECEIPTS IN THE SAME BAG WITH FOOD, ESPECIALLY IF YOU ARE GOING TO IT THAT FOOD RAW. Put the receipt in the wallet, preferably in a compartment only for fiscal receipts

KEEP CHILDREN OUT OF CONTACT WITH FISCAL RECEIPTS

WEAR GLOVES IF YOU REGULARLY COME INTO CONTACT WITH FISCAL RECEIPTS (AT WORK PLACE, FOR EXAMPLE)

FOR STATE AND PUBLIC SECTORS

UPDATE THE REGULATIONS WITH THE EU REGULARLY

INTENSIFY ENFORCEMENT ACTIVITIES FOR THE LAW ON PACKAGING AND PACKAGING WASTE

ADJUST PUBLIC PROCUREMENTS TO "GREEN PROCUREMENT" CRITERIA, I.E. INTRODUCE A "BPA-FREE" CRITERION

BAN THE PRODUCTION OF PAPER PACKAGING FOR FOOD MADE OF CONTAMINATED RECYCLED MATERIAL

PROMOTE ELECTRONIC PAYMENTS SO AS TO REDUCE EXPOSURE TO BPA FROM FISCAL RECEIPTS





ALHem - Safer chemicals alternative is a civil society organization based in Belgrade, Serbia. Its goal is promotion of safe management of chemicals in Serbia and operates at all levels of society with the objective of reducing risks from chemicals to human health and the environment

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