



# Incidence

360° Market Research Solutions

## **Study on the use of biocidal disinfectants among the Belgian population**



federal public service

**HEALTH, FOOD CHAIN SAFETY  
AND ENVIRONMENT**





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## II. STUDY CONTEXT AND OBJECTIVES

During the Covid-19 pandemic and the subsequent widespread use of biocidal disinfectants among the general public, the Belgian Poison Centre received numerous incident reports. The reports concerned the following types of products:

PT1: Products applied to the skin or scalp for the primary purpose of disinfecting them

PT2: Products used to disinfect surfaces that are not in contact with food or animal feedstuffs

PT4: Products used to disinfect surfaces that are in contact with food or animal feedstuffs.

The Federal Public Service for Public Health, Food Chain Safety and the Environment decided to analyse and understand how the general public uses these biocidal disinfectants. This survey does not include PT3 (products used for veterinary hygiene purposes) or PT5 (products for disinfecting water).

More precisely, the objectives of the study were to highlight the following:

- the habits of use of these types of products
- the awareness of their hazards
- the application of the information on the label
- the purchasing processes
- the influence of the Covid-19 pandemic
- ...



### **III. METHODOLOGY & SAMPLING**

In the context of this study, Incidence conducted 2.025 surveys among the Belgian population.

The semi-closed questionnaire was compiled in collaboration with the FPS Public Health, and validated by the latter.

The chosen methodology was mixed and multimodal: both via an online questionnaire and by telephone, in order to reach all age groups and to collect sufficient details regarding the open questions. More specifically, 1.525 surveys were conducted online and 500 by telephone.

Prior to collecting the data, there was an oral briefing (via Teams) in each language (NL and FR).

A pilot phase was carried out beforehand to verify that the questions were understandable, to check how long the questionnaire was, and to supplement the possible (suggested) answers. 5 surveys in French and 5 surveys in Dutch were carried out by telephone. The objectives of this test were to:

- verify that the respondents fully understood the questions and to check their ability to provide accurate and usable answers;
- collect information that would allow us to pre-encode as finely as possible the possible answers to the questions;
- validate the average length of time to take the questionnaire;
- validate the sequences of questions, wording and instructions.

Following this test, the questionnaire was finalised by Incidence and validated by the FPS Public Health.

All the surveys were conducted between 17 March and 6 April 2022.

The average survey time was 10 minutes per survey.

There was no remuneration (including incentives) for participation in this survey.

The respondents were informed at the start of the survey that the FPS Public Health was the sponsor of the study.

The data were weighted to ensure that they were representative of the national population by age, gender, province, level of education and degree of urbanisation. A full description of the sample can be found in the tables below.



The maximum margin of error (i.e., for an observed frequency of 50%) in this study is 2,178% for the total sample.

The survey results are presented on the total sample (n=2.025) unless otherwise stated.

Significance tests were performed using a Chi<sup>2</sup> test. This is a statistical test used to determine whether the difference between two distributions is due to chance or is statistically significant. The assumption then is, with a fixed risk of error, that there is a difference in the population between the groups that are compared for the variable of interest. The results are presented as follows:

+++ : 99% probability that the observed difference is significant.

++ : 95% probability that the observed difference is significant.

+ : 90% probability that the observed difference is significant.

	Raw sample		Weighted sample	
<b>Gender:</b>				
✓ Men	941	46%	998	49%
✓ Women	1.077	53%	1.020	50%
✓ Other	7	0%	7	0%
<b>Language:</b>				
✓ French	943	47%	830	41%
✓ Dutch	1.082	53%	1.195	59%
<b>Age:</b>				
✓ 18-24 y.o.	170	8%	221	11%
✓ 25-34 y.o.	337	17%	365	18%
✓ 35-44 y.o.	376	19%	365	18%
✓ 45-54 y.o.	404	20%	385	19%
✓ 55-64 y.o.	390	19%	385	19%
✓ 65 and older	348	17%	304	15%
<b>Total</b>	<b>2.025</b>	<b>100%</b>	<b>2.025</b>	<b>100%</b>



	Raw sample		Weighted sample	
<b>Province:</b>				
✓ East Flanders	198	10%	213	11%
✓ West Flanders	258	13%	269	13%
✓ Antwerp	299	15%	328	16%
✓ Flemish Brabant	165	8%	203	10%
✓ Limbourg	147	7%	157	8%
✓ Brussels	238	12%	209	10%
✓ Hainaut	268	13%	238	12%
✓ Walloon Brabant	108	5%	73	4%
✓ Liège	194	10%	196	10%
✓ Namur	97	5%	88	4%
✓ Luxemburg	53	3%	51	3%
<b>Level of urbanisation:</b>				
✓ Urban	626	31%	598	30%
✓ Rural	241	12%	273	13%
✓ Semi-urban	1.158	57%	1.154	57%
<b>Total</b>	<b>2.025</b>	<b>100%</b>	<b>2.025</b>	<b>100%</b>

	Raw sample		Weighted sample	
<b>Level of education:</b>				
✓ Low	346	17%	501	25%
✓ Medium	731	36%	754	37%
✓ High	931	46%	753	37%
✓ Not precised	17	1%	17	1%
<b>Professional situation:</b>				
✓ Active (employed)	1.075	53%	1.043	52%
✓ Unemployed	118	6%	91	4%
✓ Inactif	832	41%	891	44%
<b>Family situation:</b>				
✓ Couple with child(ren)	606	30%	534	26%
✓ Couple without children	601	30%	457	23%
✓ Single with child(ren)	193	10%	213	11%
✓ Single without children	595	29%	761	38%
✓ Other	30	1%	60	3%
<b>Total</b>	<b>2.025</b>	<b>100%</b>	<b>2.025</b>	<b>100%</b>



The results are analysed for the following factors:

- Gender
- Language of the questionnaire : Dutch (DU) or French (FR)
- Age groups (<35 years old, 35-54 years old, 55 years old and above; these age groups are typically used in questionnaires; they are statistically valid by their weight (sample size), facilitating reliable comparisons)
- Level of education (Low, Medium (=CESS), High)
- Degree of urbanisation (urban, semi-urban, rural); the type of habitat is calculated on the basis of the postal code and the Degree of Urbanisation (DEGUBRA) segmentation used by Eurostat<sup>1</sup>
- Employment status : in employment (active), unemployed, inactive: students and (pre)retired individuals, unable to work, housewife/husband)
- Age of the youngest child at home (<3 years old, 4-12 years old, 13+ years old, no children); this segmentation makes it possible to highlight possible precautionary actions if young children are present
- Any animals (pets, farm animals, no animals)
- Level of household income (<€1.750, between €1.750 and €2.700, between €2.700 and €4.200, >€4.200). This information is obtained from the following question: "*What is your total monthly net household income, including allowances, benefits, net property income (minus taxes and mortgages)?*" This category is based on sensitive information and must be interpreted with caution. Indeed, the calculation to make an estimate of one's income is complex. Moreover, some situations are very unstable over time. Finally, we saw that 17,73% of respondents preferred not to answer this question, i.e. 359 respondents out of 2.025.

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<sup>1</sup> [https://ec.europa.eu/eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP\\_DEGURBA](https://ec.europa.eu/eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP_DEGURBA)





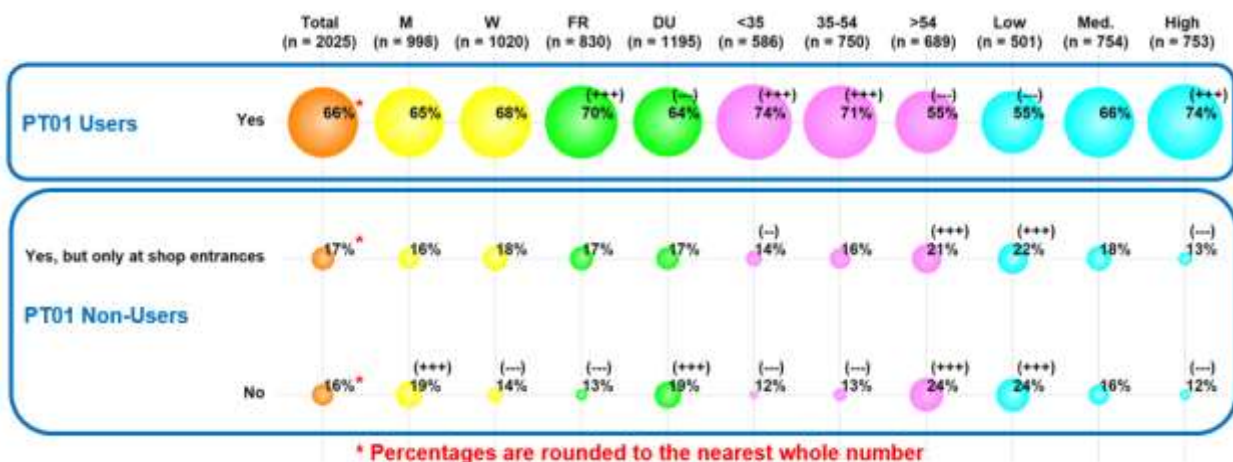
# IV. RESULTS

## 1. Biocidal products applied to the skin or scalp for the primary purpose of disinfecting them (PT1)

### 1.1. Habits of use of PT1

84% of Belgians have used a disinfectant product applied to the skin or scalp for the primary purpose of disinfecting them in the last 12 months, but 17% have only used it at the entrance to shops. During the past 12 months, 66% of Belgians have used type 1 products of their own accord, either by choice or by habit.

*Q: During the last 12 months, have you used a disinfectant product applied to the skin or scalp for the primary purpose of disinfecting them?*



There are significant differences as regards the use of PT1 by socio-demographic profile. These products are more likely to be used by:

- French-speakers than Dutch-speakers (87% vs 81%)
- people under 55 years of age (88% vs. 76%)
- people with an education above CESS (Certificate of Secondary Education) level (74% vs. 55% of respondents with a degree below CESS)
- people living in urban areas (70% vs. 64% and 67% for semi-urban and rural areas)
- people who are professionally active (75% vs. 53% for the unemployed and 58% for the inactive)
- parents of children under 12 years of age (80% vs. 63% for respondents without children in the home)
- respondents with pets (pets: 72% and farm animals: 78% and 59% for respondents without pets)
- respondents with higher incomes.



The profile of respondents (17%) who only used PT1 at the entrance of shops is marked by the following socio-demographic characteristics; they are primarily individuals:

- 55 years old or above (21%)
- with a degree below CESS level (22%)
- who are unemployed or inactive (29% and 20% respectively)
- who do not have animals (20%)
- who state having an income below €1,750 (21%).

## 1.2. Reasons for not using PT1

The main reason for not using PT1, indicated by 9% of the respondents (of the total sample), is that using soap seems to be just as effective. Moreover, PT1 products irritate the skin (4%) and are considered toxic (3%). 3% of respondents also indicated that "these types of products are useless" and 2% mentioned the high price.

Q: *Why do you not use this type of product?*

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)
Washing your hands with soap is just as effective	9%	(++) 11%	(-) 8%	(-) 7%	(+++) 11%	(-) 5%	(-) 7%	(+++) 15%
These products damage, irritate the skin	4%	4%	4%	4%	5%	4%	4%	(+) 5%
These products are useless	3%	(++) 4%	(-) 2%	(-) 2%	(++) 4%	4%	(-) 2%	4%
These products are toxic, dangerous to the health	3%	3%	2%	3%	2%	2%	2%	(+++) 4%
These products are expensive	2%	(+) 3%	(-) 1%	(-) 1%	(++) 2%	(-) 1%	2%	(++) 3%
Other	1%	(+++) 2%	(-) 1%	1%	1%	(-) 0%	1%	(+++) 2%
Use only at the entrance of stores	17%	16%	18%	17%	17%	(-) 14%	16%	(+++) 21%
Use type 1 products	66%	65%	68%	(+++) 70%	(-) 64%	(+++) 74%	(+++) 71%	(-) 55%

Overall, the reasons for not using this type of product are indicated more often by the following respondents: Dutch speakers, people over 54 years old, inactive people, those with no children at home (any longer), no pets, and with lower incomes (less than €1.750 per month).



### 1.3. Justifications for the use of PT1

The following questions were not asked to respondents who only used a PT1 product at the entrance to a shop.

**The main reason to use this type of product is clearly due to the Covid-19 pandemic: more than half of the Belgian population (58%) uses it as a preventive measure,** especially respondents with young children (68%), higher education (67%), professionally active (64%), younger (64%) or middle-aged (61%), residing in urban areas (62%), French-speaking (61%), who have a farm animal (69%) or pet (61%), and who are female (60% vs 56%).

**13% of respondents use this type of product in a professional context** (work obligation) but **11% have always used it.** We also observe more awareness among the population when in contact with more **vulnerable people: 10% of respondents use type 1 biocidal disinfectants when someone close to them is ill, 8% in the presence of people with lower immunity and 6% in the presence of young children.** 4% of respondents use them on the recommendation of a health professional. Finally, 4% of respondents use PT1 products because they have a pet.

*Q: Why do you use this type of product?*

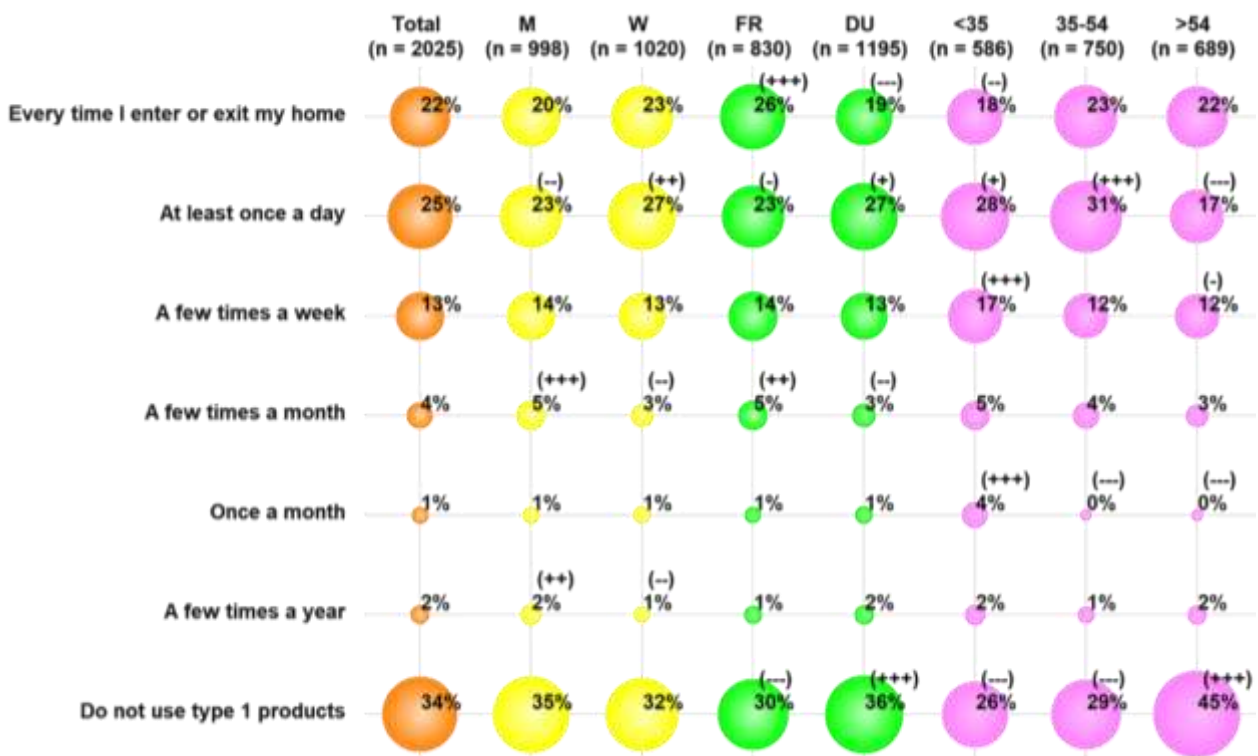
	Total (n = 2025)	Urb. (n = 598)	Semi-urb. (n = 1154)	Rural (n = 273)	Active (n = 1043)	Unempl. (n = 91)	Inactive (n = 891)	Child 0-3 (n = 167)	Child 4-12 (n = 261)	Child >12 (n = 319)	No child (n = 1278)
As a preventive measure against Covid-19	58%	62% (++)	56% (-)	58%	64% (+++)	42% (-)	52% (-)	61%	68% (+++)	60%	55% (-)
It is mandatory in my job	13%	11%	13%	17% (++)	22% (+++)	3% (-)	3% (-)	16%	21% (+++)	15%	10% (-)
It is a habit, I have always used them	11%	11%	11%	7% (-)	10%	10%	11%	10%	14% (++)	9%	10%
When someone close to me is sick	10%	10%	10%	9%	10%	5% (-)	10%	10%	14% (++)	12%	9% (-)
Because there is/are person(s) with reduced immunity in the household	8%	10%	7% (-)	9%	8%	4%	10% (++)	10%	7%	10%	8%
Because there is/are a young child/ren in the household	6%	8% (++)	5%	5%	9% (+++)	6%	3% (-)	24% (+++)	17% (+++)	3% (-)	2% (-)
A health professional recommended I use them	4%	4%	5%	5%	4%	3%	5%	3%	5%	5%	4%
Because there is/are an animal(s)	4%	5%	5%	3%	4%	3%	5%	3%	6%	9% (+++)	3% (-)
Other	2%	2%	2%	2%	2%	4%	3%	2%	2%	2%	3%
Do not use type 1 products	34%	30% (-)	36% (++)	33%	25% (-)	47% (+++)	42% (+++)	27% (-)	20% (-)	32%	37% (+++)



## 1.4. Frequency of use of PT1

47% of Belgians use type 1 biocidal products at least daily: 22% specified "every time I go out or come home", 25% use them at least once a day, 13% use them a few times a week and 7% use them even less often.

Q: How often do you use these products?



The respondents (22%) who (almost) systematically use type 1 biocidal products are distinguished by the following socio-demographic characteristics:

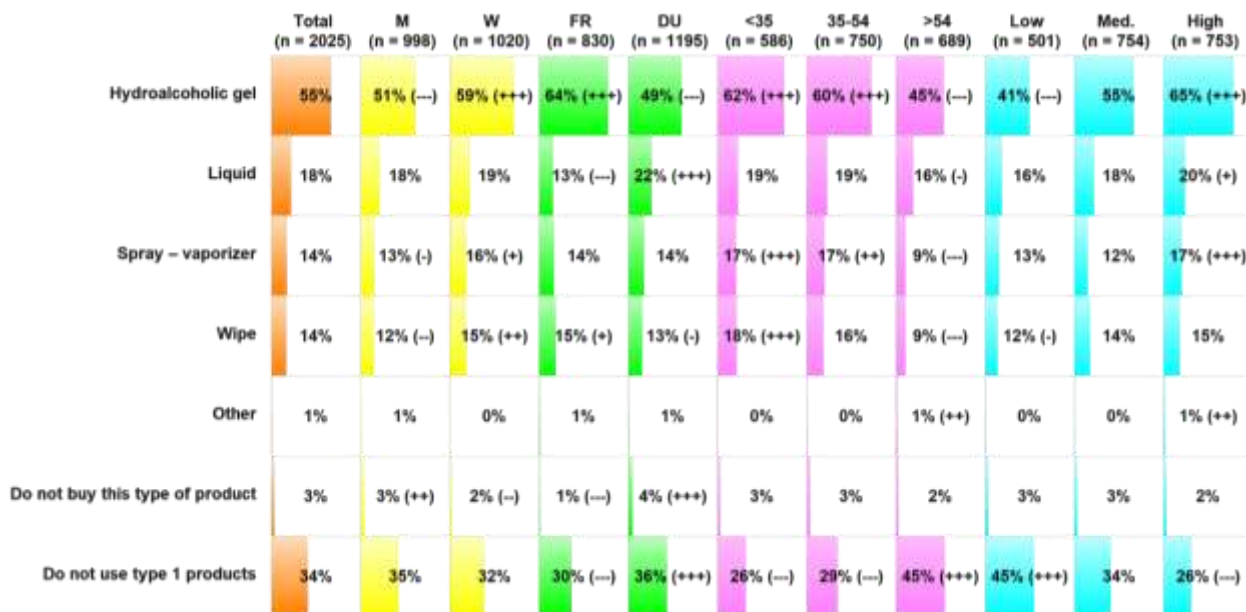
- the presence of a farm animal (31%)
- urban environment (29%)
- French-speaking region (26%)
- having a diploma higher than CESS level (24%).



## 1.5. Purchased forms

Among the different forms available on the market, the most frequently purchased formulation is the hydroalcoholic gel (55%), followed by liquid (18%), sprays or vaporizers (14%) and finally (wet) wipes (14%). 3% of the population say they never buy them (these are more likely to be Dutch speakers, men, active people, living in semi-urban areas).

Q: In what form(s) have you already purchased this type of product?



The socio-demographic profiles differ according to the purchased forms. The main significant differences between socio-demographic groups are

- for hydroalcoholic gel (55%) :
  - o parents of young children (66% and 62%)
  - o those with a diploma higher than CESS level (65%)
  - o French-speakers (64%)
  - o young people under 35 (62%) and middle-aged (60%)
  - o people in employment (62%)
  - o people living in urban areas (61%)
  - o people with a pet (61%)
  - o women (59%)
- for the liquid form (18%) :
  - o Dutch-speakers (22%)
  - o people with a pet (21%) or farm animal (32%)
  - o people in employment (20%)
- for the spray / vaporizer form (14%) :
  - o parents of children aged 4 to 12 in the household (21%) or older (18%)
  - o households with monthly incomes above €4,200 (20%)
  - o respondents under the age of 55 (17%)
  - o people with a diploma higher than CESS level (17%)
  - o people in employment (17%)



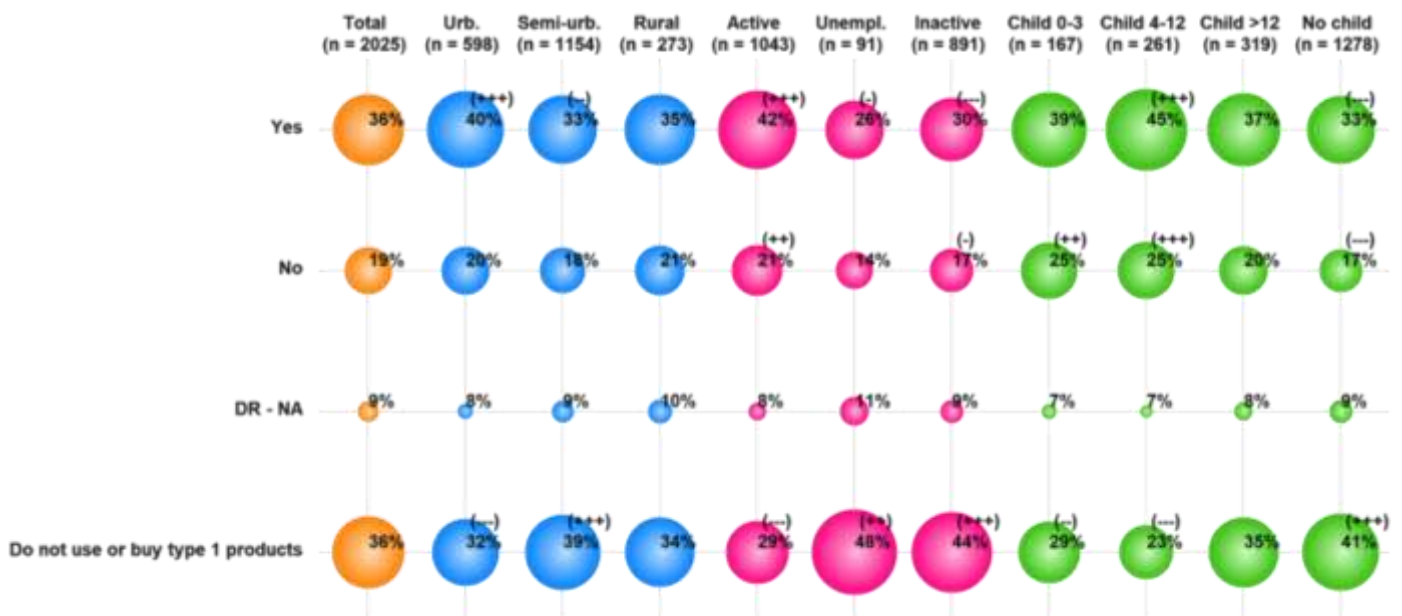


- for the 'wipes' form (14%) :
  - o parents of young children (22% if they have children under 3 years old, and 23% for parents whose youngest child is between 4 and 12 years old)
  - o young adults (18%)
  - o people in employment (17%) and
  - o women (17%).

## 1.6. Awareness of the cleaning properties of PT1

36% of Belgians reported that these products have cleaning properties; 19% know that they do not have such properties and 9% are unable to say (Don't know – No Answer : DK – NA).

*Q: In your opinion, do these disinfectants have any cleaning properties?*



Among the respondents (36%) who incorrectly attribute cleaning properties to the product, certain socio-demographic profiles are significantly more represented. These profiles are :

- parents of children aged 4 to 12 (45%)
- young people under 35 (45%)
- people who are professionally active (42%)
- city dwellers (40%)
- pet owners (40%)
- respondents with a higher education (39%)

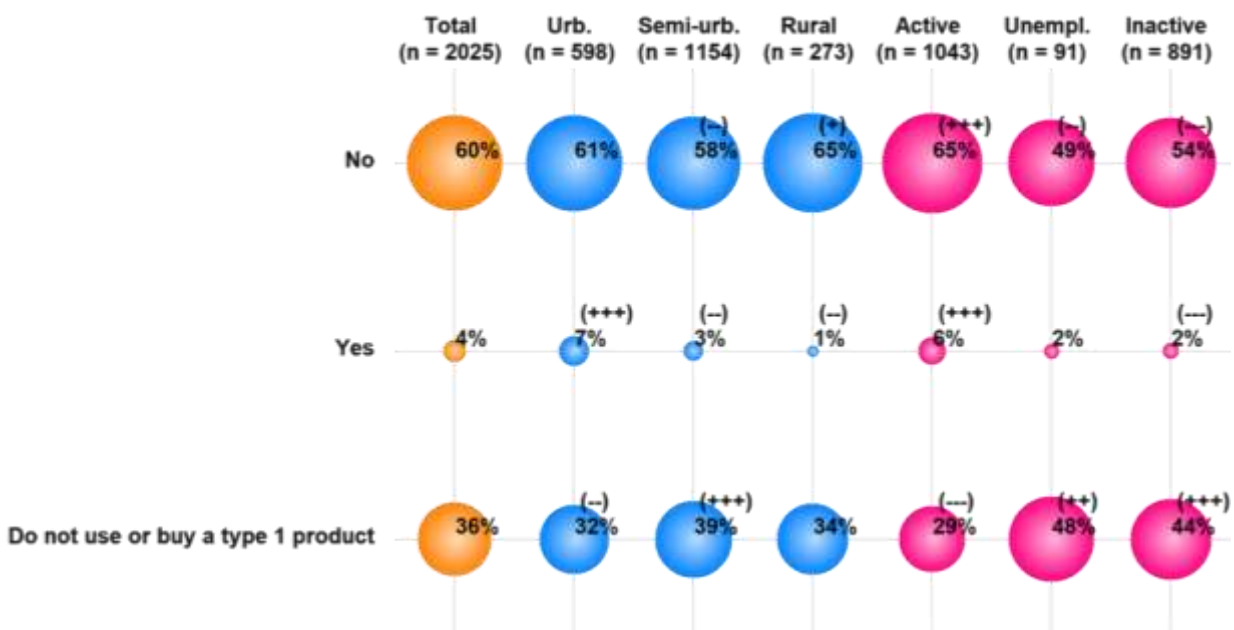


## 1.7. Combining PT1 biocides with other products

4% of respondents have mixed PT1 with another product. There are several significant differences by socio-demographic profile, such as:

- age: more often young adults under 35 years old (8%),
- the living environment: 7% of people living in the city
- professional activity: 6% of people in employment
- having a pet: 5%.

Q: Have you ever mixed your disinfectant with another product?



Most often, the respondents indicated that they had added a cleaning product to the disinfectant PT1.

Most commonly added products	Desired effects
✓ A cleaning product (n=27)	➤ To clean as well as disinfect
✓ Another disinfectant (alcohol, bleach...) (n=11)	➤ To increase the effectiveness
✓ Water (n=10)	➤ To dilute the product
✓ Essential oils (n=6)	➤ To increase the effectiveness
	➤ For the smell
✓ Moisturising cream (n=6)	➤ Moisturise the skin

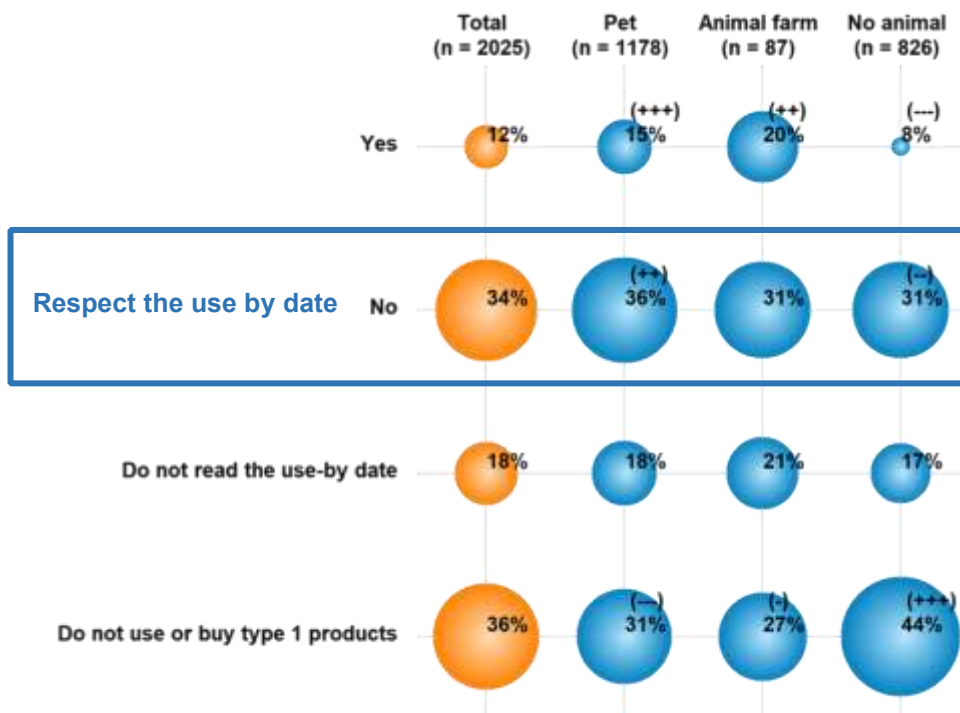


## 1.8. Awareness of and compliance with the use-by date of PT1

As regards the instructions for the use-by date,

- 18% of respondents do not read it
- 12% read it, but do not comply with it
- 34% say they comply with it.

Q: Have you ever used these types of products past their use-by date?



18% of respondents do not read the use-by date. They are more often (significant differences according to the profiles) :

- young people under 35 (22%)
- people with a higher education (22% with diplomas higher than CESS)
- French-speakers (20%)
- people who are professionally active (20%)

12% of the respondents read the use-by date, but do not systematically comply with it, and significant differences can be seen in the following profiles:

- people who have children aged 4 to 12 (19%)
- people in employment (16%)
- people with an animal (pet: 15% - farm animal: 20%)
- young people under 35 (17%)
- people with higher education (14% with diplomas higher than CESS)





Among the 34% who comply with the use-by date, the following profiles stand out significantly:

- adults aged 35-54 (37%)
- women (36%)
- people with a pet (36%)
- people with a child aged 4 to 12 years in the home (43%)

## **1.9. Destination after use**

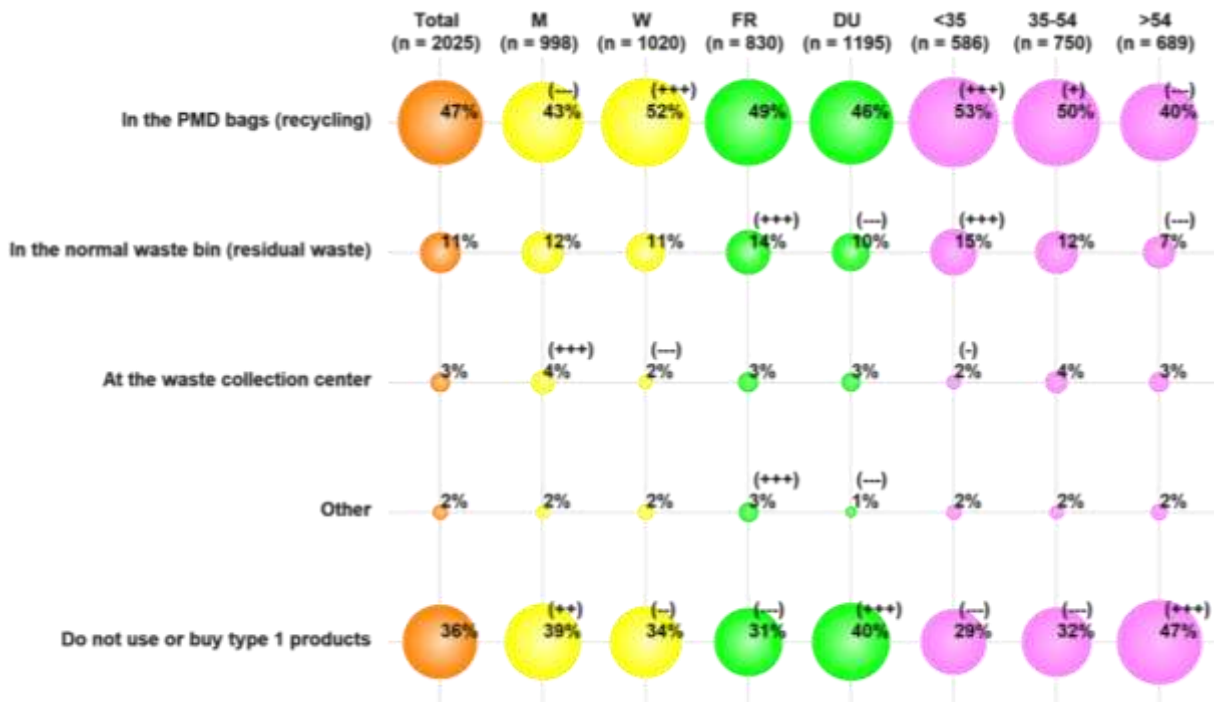
The selective treatment of garbage differs between the regions of Belgium. In Brussels and Flanders, empty packaging and leftover PT1 products can be classified as 'PMD' waste for recycling (Plastic or Metal packaging and Drink cartons), excepting the packaging with a childproof closure or hazard symbols 'acute toxic' or 'health hazard' : those must be taken to the waste disposal centre. In the Walloon region, the packaging with a 'flammable' hazard symbol must also be taken to the waste disposal centre.

### **1.9.1. Destination of the packaging after use**

**Almost half of Belgians throw the empty packaging in the PMD bags (47%),** especially women (52% vs. 43% of men), people under 35 (53%), people with a higher level of education (53%), parents with children under 12 (55 and 56%), people in employment (52%) and people with a pet (52%). **11% of respondents throw them away with conventional waste** (general waste). They are more likely to be people under 35 (15%), French-speaking (14%), urban (16%), in employment (12%) and having a farm animal (19%). **3% take them to the waste disposal centre.**



Q: Where do you most often dispose of the packaging for this type of product?

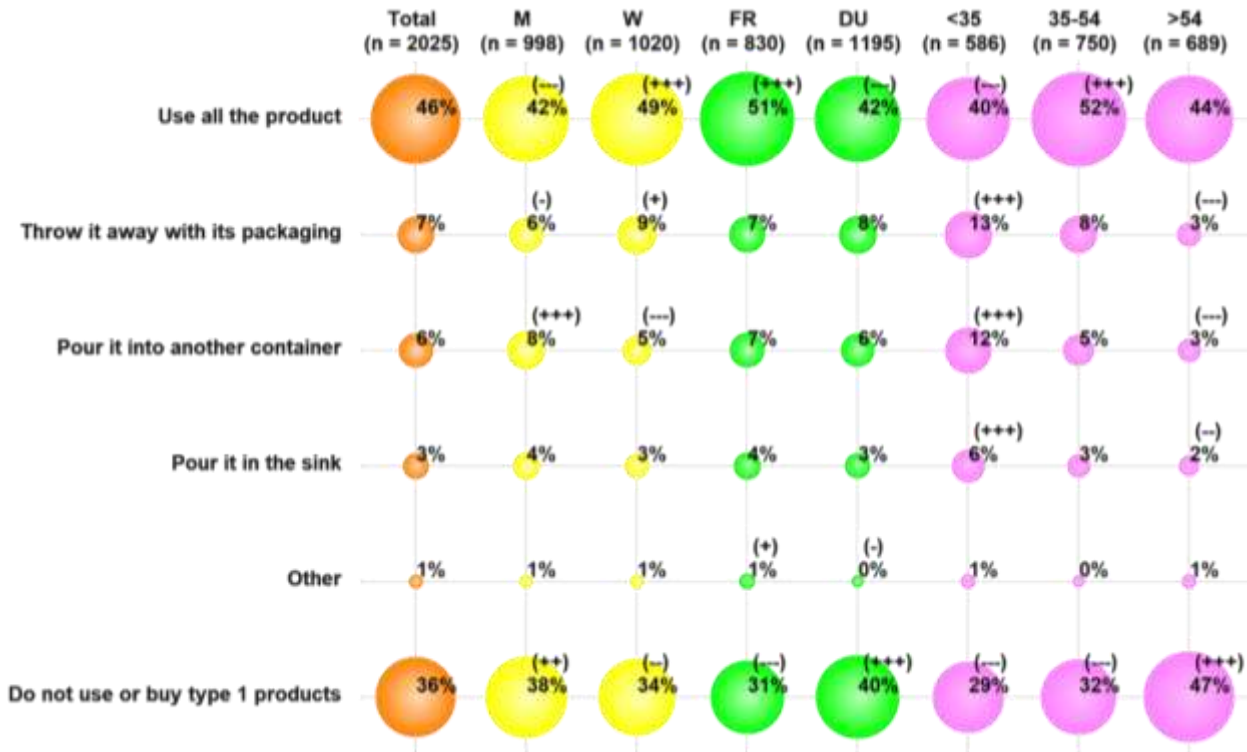




### 1.9.2. Destination of any leftover product after use

46% of Belgians use the product entirely, 7% throw away any leftover product with the packaging, 6% pour leftover product into a new container and 3% pour them down the sink.

Q: Where do you most often dispose of the leftover product for this type of product?



We observe the following differences among the respondents

- who use all the product (46%) : this is more likely to be people 35-54 years old (52%), French-speakers (51%), women (49%), people in employment (49%) and people with a pet (48%);
- who throw away any leftover product with the packaging (7%) : this is more likely to be young people under 35 (13%), with children aged 4 to 12 (12%), professionally active (9%) and having obtained their CESS (9%);
- who transfer any leftover product into another container (6%) : this is more frequently the case for people under 35 (12%), men (8%), people in employment (7%) and looking for work (12%), and people who have an animal (pet : 8% and farm animal : 13%);
- who pour any leftover product down the sink (3%) : this tendency is more common among those under 35 (6%), people in employment (5%), parents of children aged 4 to 12 years (6%) and respondents living in urban areas (5%).



## 1.10. Criteria for choosing when buying a PT1 product

On average, the respondents indicate between 2 and 3 elements that they take into account when purchasing a PT1.

The three main criteria for Belgians are price (34%), small package size (28%) and superior disinfecting strength (19% of respondents are convinced that the products they buy are more effective than their competitors).

These 3 criteria are repeated in each segment except for the following 2 categories:

- respondents who have farm animals pay more attention to hypoallergenic properties (19%) and texture (19%) : these 2 criteria come in 3<sup>rd</sup> position, after price and package size.
- Parents of children aged 4 to 12 years also indicated the hypoallergenic properties more often (19%) and the fact that PT1 is suitable for children (19%), before the superior efficacy of the products (15%).

Different purchase criteria also vary according to the profile of the respondents, as can be seen in the following charts.

Q: When buying these types of products, what criteria do you consider when buying a specific product?

	Total (n = 2025)	Pet (n = 1178)	Animal farm (n = 87)	No animal (n = 826)
The price	34%	37% (+++)	36%	28% (---)
Small size (easy to carry)	28%	31% (+++)	35%	25% (---)
Higher disinfecting power than other products	19%	21% (+++)	16%	16% (---)
The product is hypo-allergenic - does not cause allergies	13%	15% (+++)	19% (+)	9% (---)
The fragrance	12%	13% (+++)	10%	9% (---)
The texture	10%	11%	19% (+++)	9% (-)
Shorter drying time than other products	9%	10% (+)	8%	8% (-)
Large size	9%	11% (+++)	6%	7% (--)
The product is also suitable for children	9%	10% (++)	13%	7% (--)
The instructions for use are clear and legible	8%	9% (++)	7%	6% (--)
Renowned brand	8%	9% (+)	8%	7%
The packaging is attractive	2%	2% (++)	3%	1% (-)
There are ads for this brand	1%	1%		1%
Other	3%	3%	4%	3%
Do not use or buy type 1 products	36%	31% (---)	27% (-)	44% (+++)



	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)	Low (n = 501)	Med. (n = 754)	High (n = 753)
The price	34%	33%	34%	36% (+)	32% (-)	41% (+++)	36% (++)	24% (-)	23% (-)	35%	39% (+++)
Small size (easy to carry)	28%	25% (-)	32% (+++)	27%	29%	34% (+++)	26% (-)	26%	23% (-)	29%	32% (++)
Higher disinfecting power than other products	19%	18%	20%	22% (+++)	17% (-)	22% (++)	18%	17%	15% (-)	18%	22% (++)
The product is hypo-allergenic - does not cause allergies	13%	12% (-)	14% (++)	14%	12%	12%	15% (++)	12%	13%	12%	14%
The fragrance	12%	9% (-)	14% (+++)	15% (+++)	9% (-)	16% (+++)	14% (++)	5% (-)	7% (-)	13%	13% (++)
The texture	10%	7% (-)	13% (+++)	11%	9%	13% (+++)	11%	6% (-)	7% (-)	10%	13% (+++)
Shorter drying time than other products	9%	8% (-)	11% (++)	8%	10%	13% (+++)	8% (-)	8%	8%	10%	10%
Large size	9%	9%	9%	9%	9%	11%	10%	7% (-)	9%	9%	10%
The product is also suitable for children	9%	8%	10%	8%	9%	10%	11% (++)	6% (-)	8%	9%	9%
The instructions for use are clear and legible	8%	9%	7%	7%	9%	7%	8%	10%	10%	8%	7%
Renowned brand	8%	8%	8%	9%	8%	12% (+++)	8%	5% (-)	5% (-)	9%	9%
The packaging is attractive	2%	1%	2%	1%	2%	4% (+++)	1% (-)	1% (-)	2%	2%	2%
There are ads for this brand	1%	1%	1%	1% (-)	1% (+)	2%	1%	1%	1%	1%	1%
Other	3%	3%	3%	5% (+++)	2% (-)	3%	5% (+++)	2% (-)	1% (-)	3%	5% (+++)
Do not use or buy type 1 products	36%	38% (++)	34% (-)	31% (-)	40% (+++)	29% (-)	32% (-)	47% (+++)	48% (+++)	36%	28% (-)

	Total (n = 2025)	Urb. (n = 598)	Semi-urb. (n = 1154)	Rural (n = 273)	Active (n = 1043)	Unempl. (n = 91)	Inactive (n = 891)	Child 0-3 (n = 167)	Child 4-12 (n = 261)	Child >12 (n = 319)	No child (n = 1278)
The price	34%	36%	32%	34%	38% (+++)	27%	29% (-)	41% (++)	40% (++)	35%	31% (-)
Small size (easy to carry)	28%	31% (+)	27%	26%	31% (+++)	24%	26% (-)	30%	26%	28%	29%
Higher disinfecting power than other products	19%	21%	17% (-)	20%	18%	18%	19%	20%	15%	18%	19%
The product is hypo-allergenic - does not cause allergies	13%	15% (+)	12% (-)	14%	13%	11%	14%	13%	19% (+++)	11%	12%
The fragrance	12%	14% (++)	10% (-)	13%	14% (+++)	15%	8% (-)	14%	15% (+)	14%	10% (-)
The texture	10%	11%	10%	9%	11% (+)	8%	9% (-)	13%	9%	9%	10%
Shorter drying time than other products	9%	9%	10%	7%	10%	10%	8%	10%	8%	11%	9%
Large size	9%	11% (+)	8%	8%	10%	12%	8%	9%	11%	8%	9%
The product is also suitable for children	9%	10% (+)	8%	8%	9%	9%	8%	16% (+++)	19% (+++)	11%	5% (-)
The instructions for use are clear and legible	8%	9%	8%	7%	7%	6%	9% (+)	4% (-)	8%	6%	9% (++)
Renowned brand	8%	9%	7% (-)	10%	10% (+++)	4%	6% (-)	10%	12% (++)	7%	8%
The packaging is attractive	2%	2%	2%	1%	1%		2% (+)	1%	2%	1%	2%
There are ads for this brand	1%	0% (-)	1% (++)	1%	1%		1%	0%	2%	1%	1%
Other	3%	4%	3%	5%	4%	2%	3%	3%	5% (+)	4%	3%
Do not use or buy type 1 products	36%	32% (-)	39% (+++)	34%	29% (-)	48% (++)	44% (+++)	29% (-)	23% (-)	34%	40% (+++)

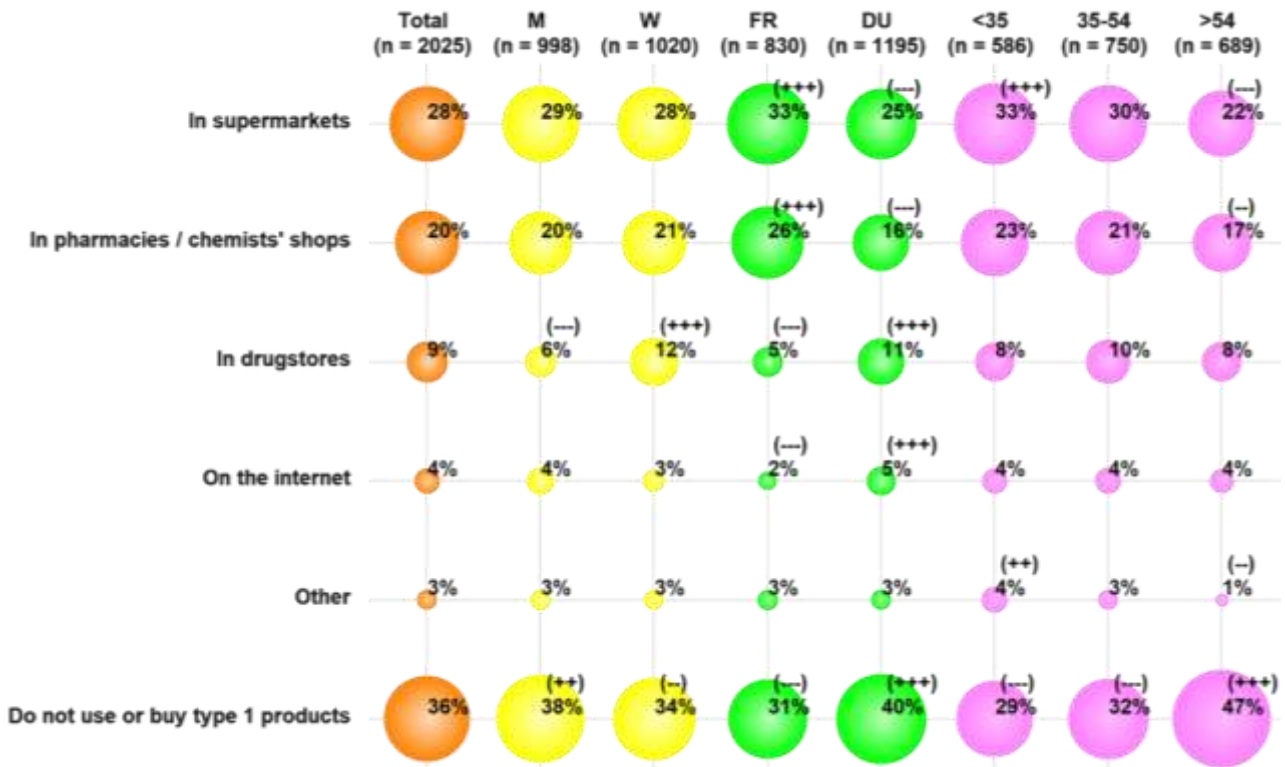
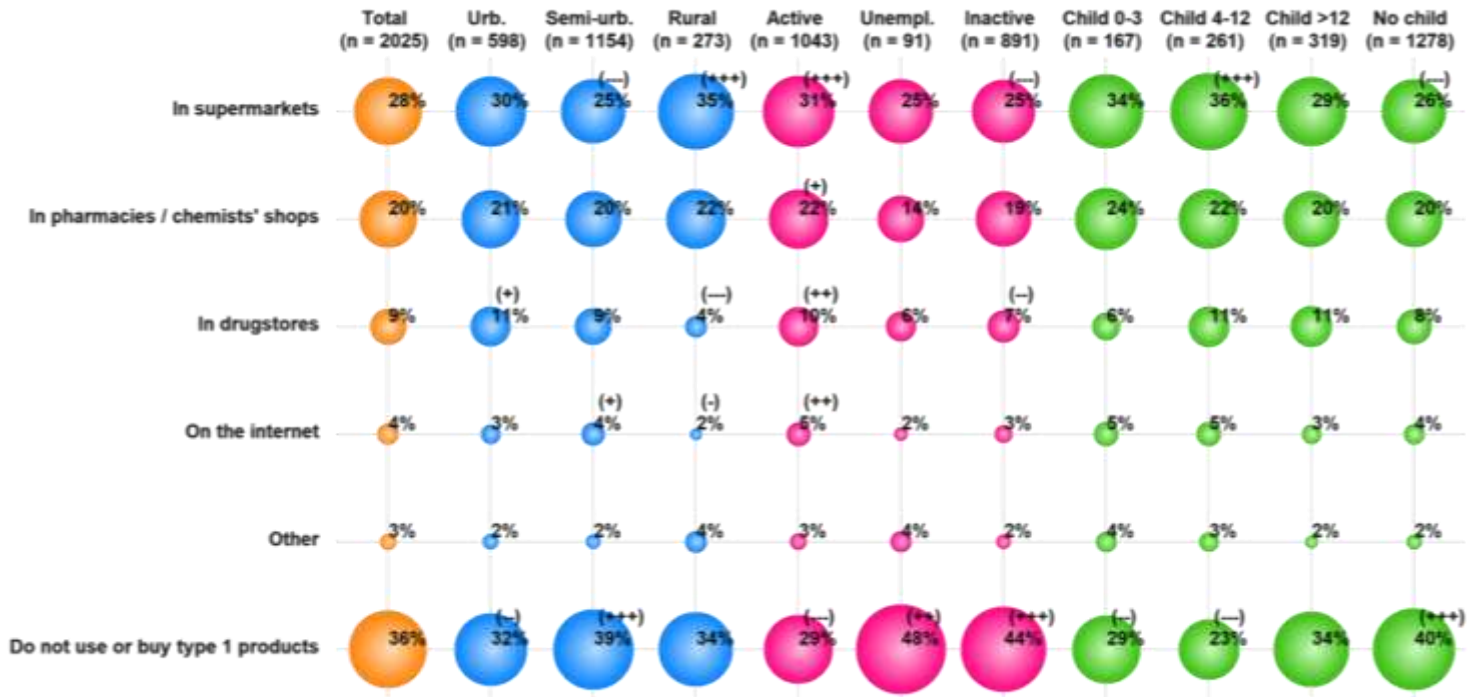
### 1.11. The places of purchase for PT1

The main places where respondents go to buy this type of product are supermarkets (28%), followed by pharmacies and health stores (20%), then drugstores (9%). Finally, 4% of the respondents purchase this type of product via the Internet.





Q: Where do you most often buy these types of products?





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The analysis of the results of this question according to the **socio-demographic** profile of the respondents yields the following significant differences:

- French-speakers are more likely to buy these products in supermarkets (33% vs. 25% of Dutch speakers) and pharmacies (26% vs. 16%), while Dutch-speakers go to drugstores more often (11% vs. 5% of French-speakers) and purchase from the internet (5% vs. 2%).
- Supermarkets (28%) are more popular with people living in rural areas (35%), people in employment (31%) and people with pets (31%).
- Drugstores and the Internet are also more popular with people in employment. Women also buy more often from drugstores than men (12% vs. 6%).



## 1.12. Reading/applying the instructions on the packaging

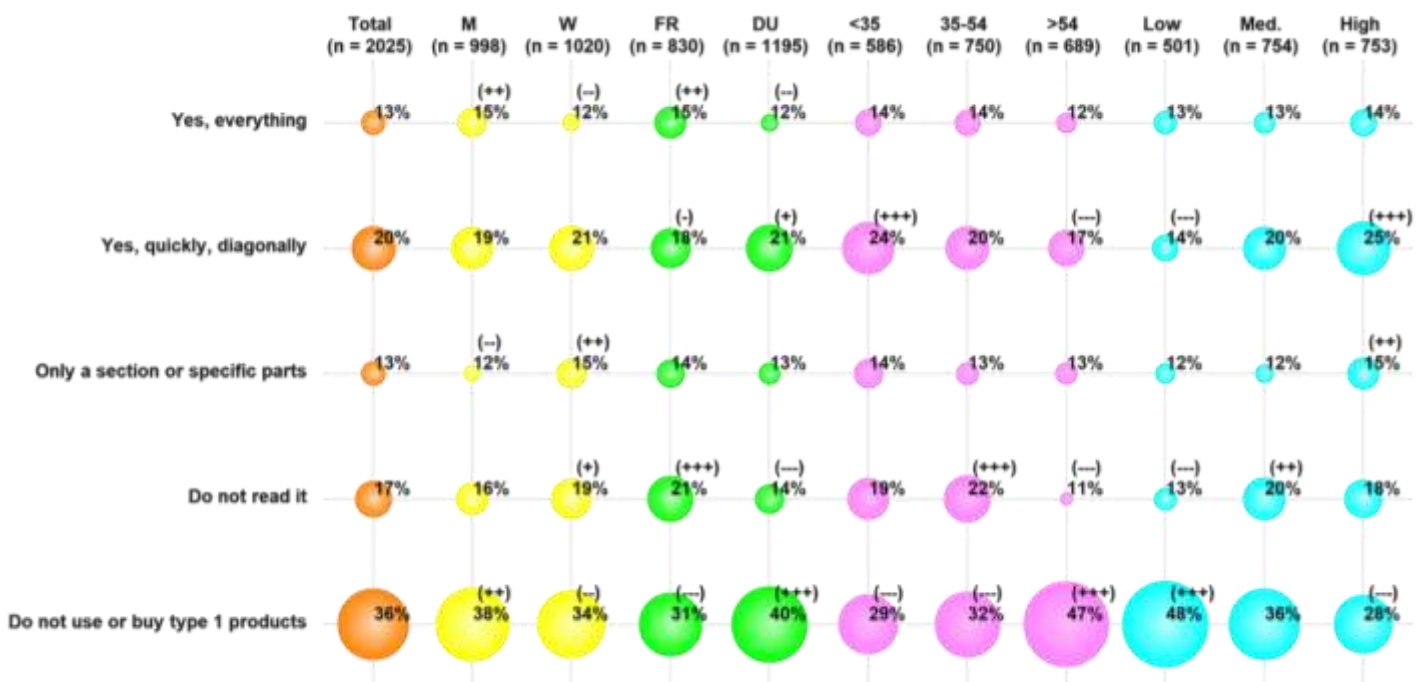
### 1.12.1. Extent to which the information on the packaging is read before purchase

Regarding the attention to the information on the packaging of PT1 before the purchase,

- 13% of Belgians read the entire label,
- 20% quickly skim it,
- 13% only read a part or specific parts and
- 17% do not read it at all.

If we consider only the users ("consumers") of PT1, we find the following percentages: 21% of Belgians read the entire label, 32% quickly skim it, 21% only read a part or specific parts, and 27% do not read it at all.

*Q: Before purchasing, do you read the label on the product packaging?*



We observe several significant differences according to the socio-demographic profile of all respondents, namely:

- In general, among all respondents, French-speakers are more likely to say they do not read the label (21% vs. 14%), as are adults aged 35-54 (22%), people with children under 12 (24% and 25%), people in employment (22%), people with incomes over €4,200 (24%) and people with a pet (20%), while young people under 35 (24%), Dutch-speakers (21%) and people with a diploma higher than the CESS (25%) most often say that they quickly skim read the label.





- More specifically, if we consider
  - o the 13% of respondents who read the entire label before purchasing the product, these are more often people living in urban areas (16%), men (15%) and French-speakers (15%)
  - o the 20% of respondents who skim read the label are primarily young people under 35 years old (24%), city dwellers (24%) and professionally active people (22%)
  - o the 13% of respondents who only read a specific part of the label are more likely to be women (15%) and people with a higher diploma (15%)
  - o the 17% of respondents who do not read the label at all are more often French speakers (21%), adults aged 35-54 (22%), professionally active (22%), with young children (24 and 25%) and living in rural areas (22%).

### 1.12.2. Information scanned in the case of partial reading

When the respondent partially reads the label (13% of the total sample, i.e. 268 respondents), the information scanned is specifically

- **the broad disinfecting action** (kills viruses, bacteria, yeasts, etc.): in 55% of the cases, these results are transversal, i.e. no significant difference is observed between the various profiles
- **information written in a large font**: in 28% of cases, transversal results
- **hazard symbols** (25%): more often young people <35 years old (37%), men (31%), respondents with a higher education (35%)
- **hypoallergenic properties** (24%): more French-speakers (34%)
- **the use-by date** (21% of respondents): especially people >54 years old (31%)
- **suitability for children** (21%): more often adults aged 35-54 and parents of children aged 0-4 and 4-12 (respectively 30%-38%-57%)
- **the ingredients** (18%): more often city dwellers (26%)

### 1.12.3. Evaluation of the clarity of the information provided

8% of Belgians consider that the information on the label is not very clear, or not at all clear. This is more common among women, French-speakers, people with a diploma higher than CESS, and people with an animal (farm animal or pet).



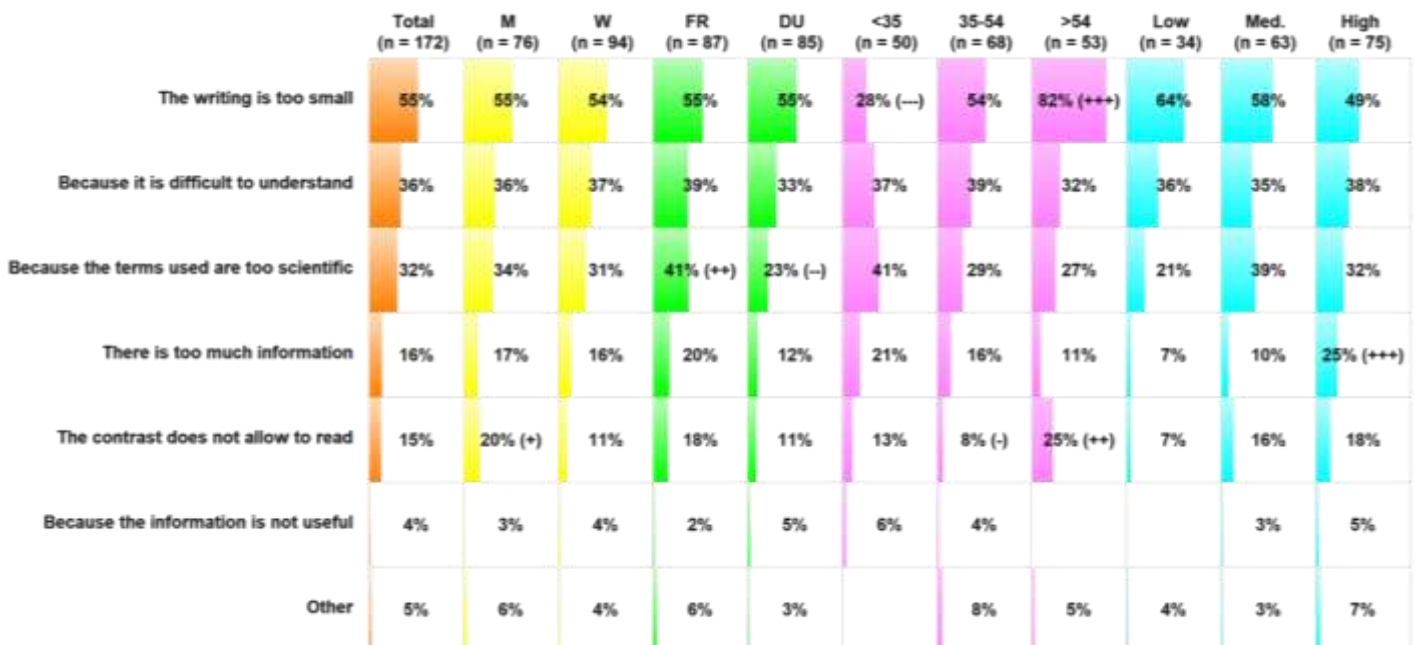
The respondents who consider that the labels are not very clear or unclear (n=172) mainly highlight 2 elements that add to the lack of clarity: readability and semantics. In terms of readability, the most frequently indicated complaints are

- the small size of the font used (55%, including 82% of people over 54)
- the fact there is too much information on the label (16%)
- a lack of contrast between text and background (15%, 20% for men and 25% for those over 54).

In terms of the semantic difficulties, some respondents criticised

- the fact that the text is difficult to understand (36%)
- the use of "too scientific" terms (32%, especially among French-speakers: 41% vs. 23% of Dutch-speakers).

Q: Why is the label not clear?

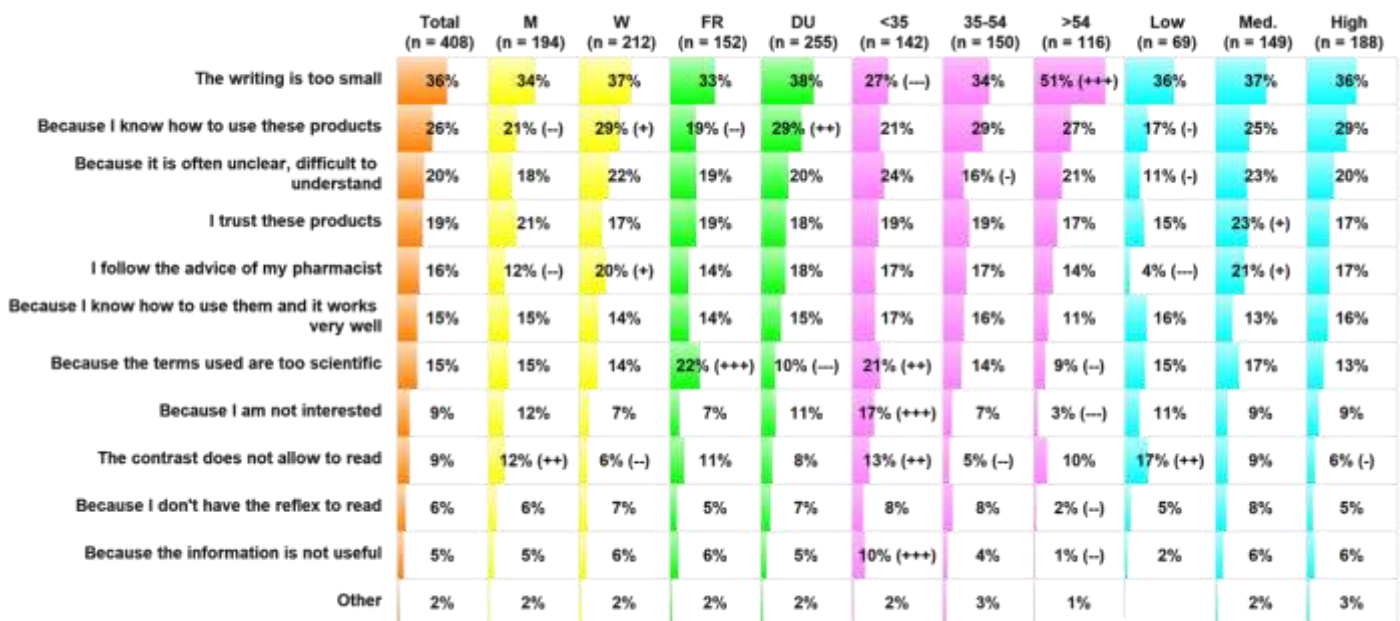
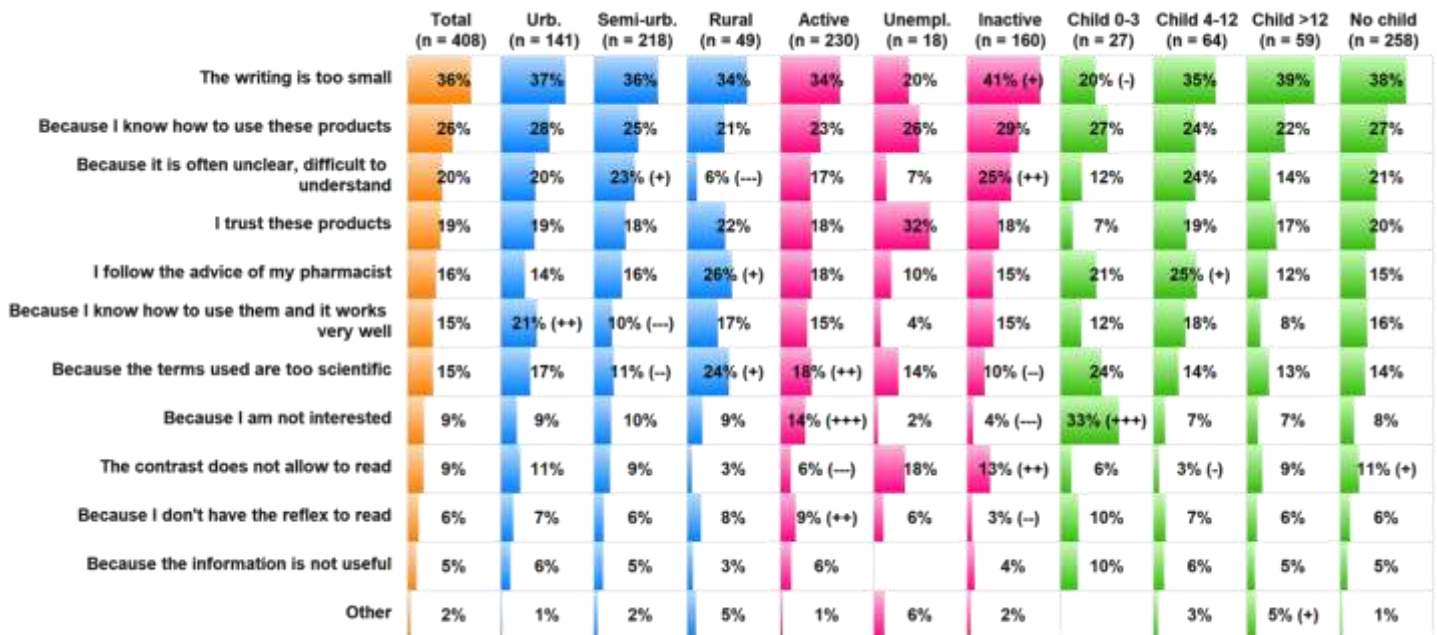




### 1.12.4. Reasons given for not reading the labels

For respondents who quickly skim the labels (n=408), the same problems were indicated: readability and a vocabulary that is not adapted to the general public. However, some users of PT1 consider that they know how to use the products correctly without having read the information on the package.

Q: Why do you not read all the instructions of use?





For the respondents who do not read the information on the packaging (n=348), the various reasons given highlight a lack of obvious usefulness ("it is not necessary", "I am not interested", "it works fine" etc.). However, the fact that the font size is too small and the type of vocabulary used is also indicated.

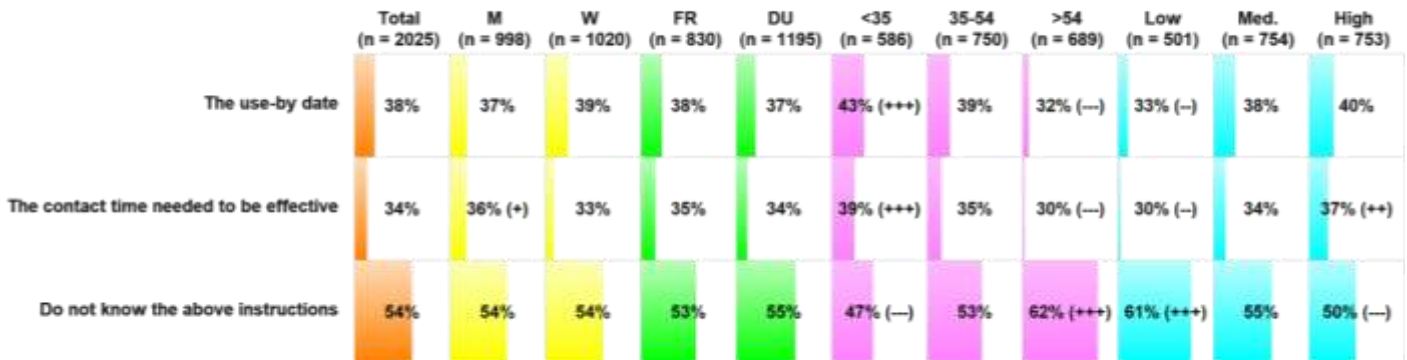
	Total (n = 348)	M (n = 158)	W (n = 190)	FR (n = 175)	DU (n = 173)	<35 (n = 111)	35-54 (n = 162)	>54 (n = 75)	Low (n = 64)	Med. (n = 148)	High (n = 134)
Because I am not interested	28%	34% (++)	24% (-)	28%	28%	44% (+++)	23% (-)	16% (---)	25%	32%	26%
Because I don't have the reflex to read	23%	22%	23%	25%	21%	27%	22%	19%	22%	21%	26%
I trust these products	20%	24%	17%	27% (+++)	14% (---)	16%	26% (++)	15%	23%	19%	20%
The writing is too small	20%	17%	22%	20%	20%	14% (-)	16% (-)	37% (+++)	30% (++)	20%	15% (-)
Because I know how to use these products	18%	13% (-)	22% (++)	14% (-)	22% (++)	19%	19%	16%	10% (-)	20%	21%
Because I know how to use them and it works very well	10%	10%	10%	7% (-)	13% (+)	13%	9%	7%	7%	11%	11%
Because it is often unclear, difficult to understand	10%	9%	10%	11%	8%	16% (+++)	6% (-)	8%	5%	12%	9%
I follow the advice of my pharmacist	9%	10%	9%	11%	8%	5% (-)	10%	14%	13%	9%	8%
Because the information is not useful	7%	6%	8%	8%	6%	12% (++)	5%	4%	7%	9%	5%
Because the terms used are too scientific	6%	6%	7%	9% (++)	3% (-)	6%	7%	7%	6%	6%	7%
The contrast does not allow to read	2%	3%	2%	3%	1%	1%	4%	2%	3%	3%	2%
Other	7%	6%	7%	10% (++)	4% (-)	6%	8%	5%	6%	4% (-)	11% (++)



### 1.13. Awareness of the instruction of use for PT1 products

54% of Belgians are not aware of the instructions of use for PT1 products. This finding is more prevalent among older people (55 years and older: 59%), people with less than a CESS diploma (61%), unemployed people (59%), people who do not have children (57%) or pets (61%), and people living in semi-urban areas (56%).

Q: When using disinfectants, are you aware of the following instructions?:







## 2. The products used to disinfect surfaces that are not in contact with food or animal feedstuffs (PT2)

### 2.1. Habits of use of PT2

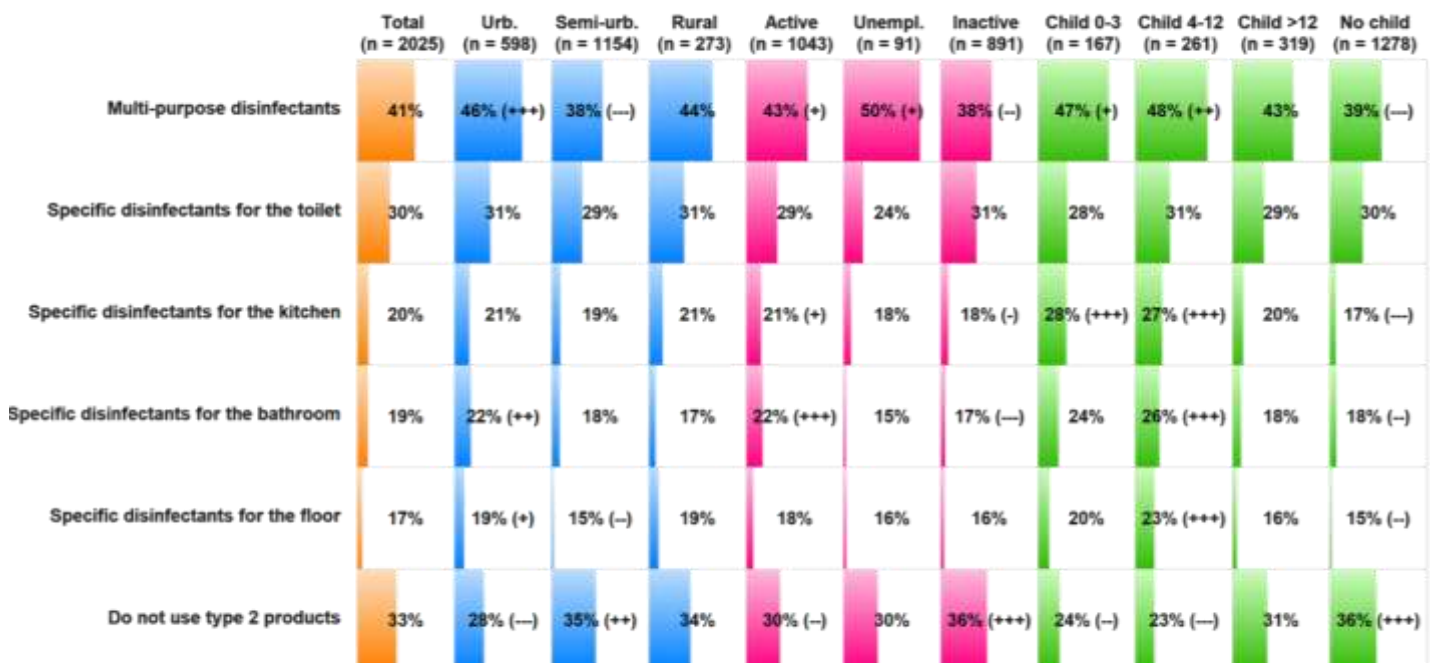
67% of Belgians have used a product to disinfect surfaces that are not in contact with food (PT2) in the last 12 months.

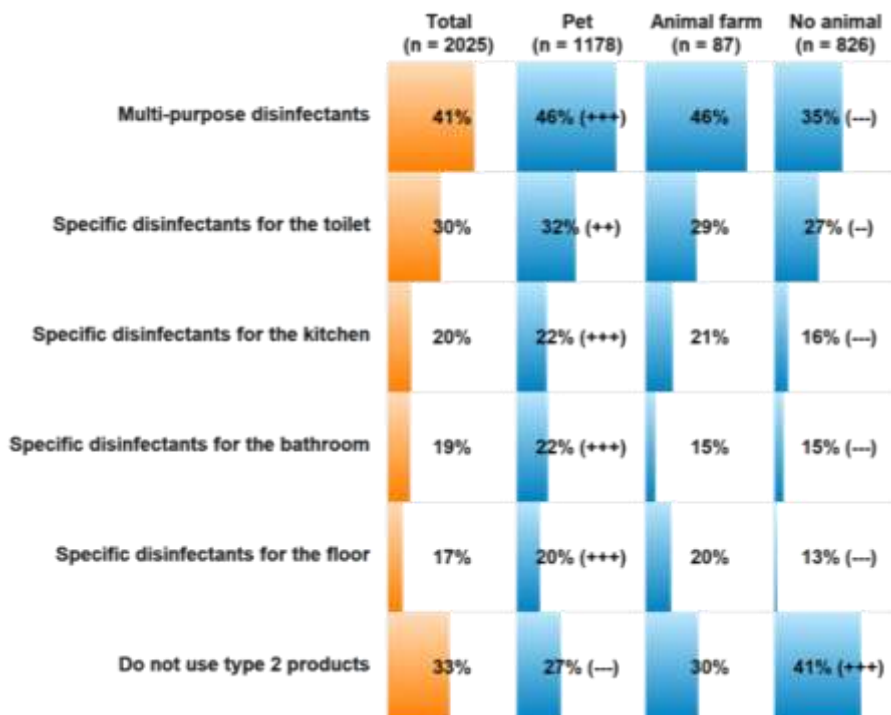
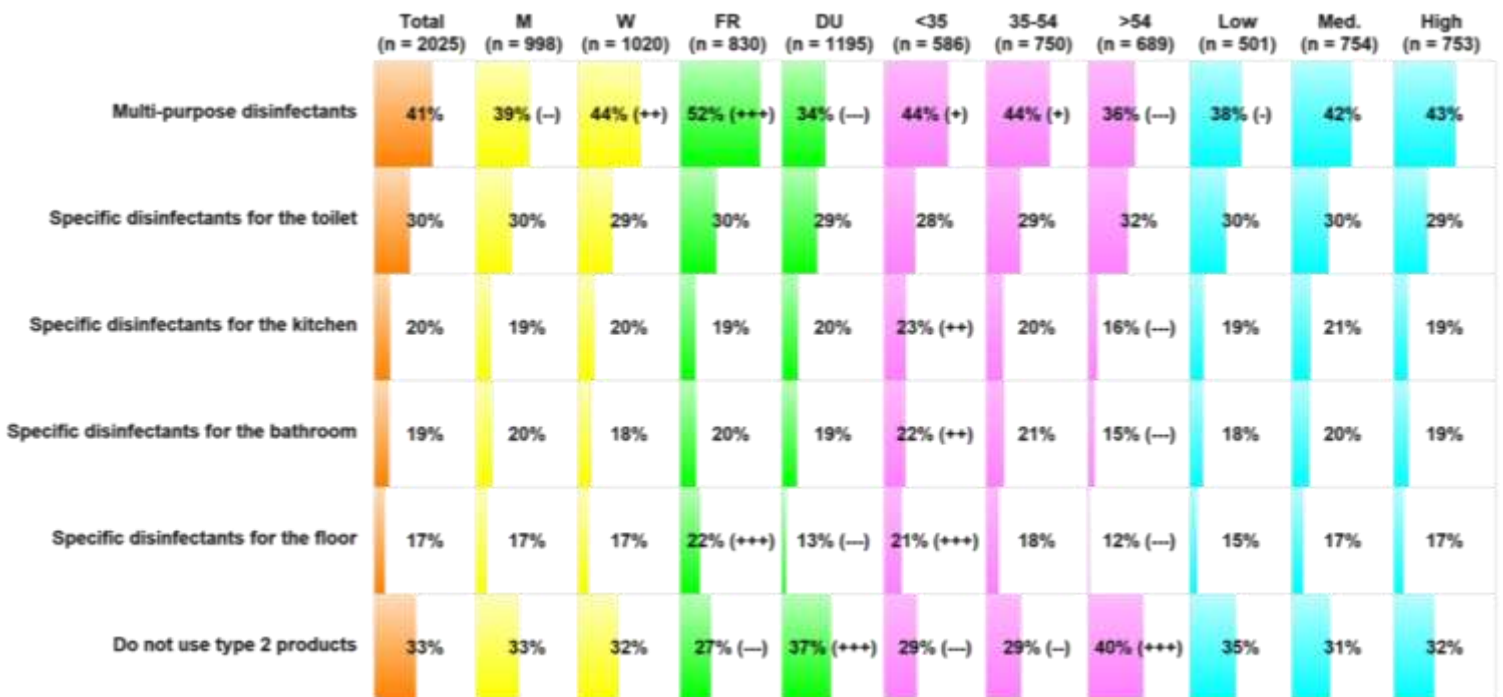
Conversely, 33% of Belgians have not used one in the last 12 months.

The analysis according to socio-demographic characteristics shows several significant differences with people who do not use PT2: indeed, they are more likely to be

- people aged 55 and over (40%)
- Dutch-speakers (37% vs 27% of French-speakers)
- inactive people (36%)
- people with no children living at home (36%)
- people living in semi-urban areas (35%)
- people who do not have pets at home (41%).

*Q: In the last 12 months, have you used a cleaning product in your home to disinfect surfaces that are not in contact with food or animal feedstuffs?*





Among the 67% of the Belgian population who used PT2, the most frequently used forms are multi-purpose disinfectants (41%) and specific products for the toilet (30%), followed by products for the kitchen (20%), bathroom (19%) and floor (17%).

We observe differences in use depending on the profile of the respondents. Indeed, people with children or pets in the home generally use more disinfectants, regardless



of the form. Young people (under 35) use more specific products than people older than them (specifically for the kitchen, bathroom, floor). We also observe variations for multi-purpose disinfectants and bathroom products. Multi-purpose products are used more often by women, French-speakers and people who live in urban areas (in addition to parents of young children and pet owners). Specific products for the bathroom are used more by city dwellers and people in employment (in addition to parents with children and pet owners).

## 2.2. Reasons for not using PT2

The main reason for not using PT2 indicated by 18% of the respondents (total sample), is that cleaning products are more than adequate; 7% indicate the fact that these products are useless. Other factors were also indicated such as price (6%), toxic to health (3%) or the environment (4%) and that they damage surfaces (3%).

Furthermore, 2% of the respondents indicated that they make their own natural cleaning products. They are more likely to be women (3%), French-speakers (3%) and unemployed people (5%).

Q: Why do you not use this type of product?

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)	Low (n = 501)	Med. (n = 754)	High (n = 753)
Cleaning products are more than enough	18%	19%	18%	17% (-)	20% (+)	14% (---)	16% (-)	24% (+++)	17%	18%	19%
These products are useless	7%	7%	6%	5% (---)	8% (+++)	5%	6%	9% (+++)	6%	7%	6%
These products are expensive	6%	6%	6%	4% (---)	7% (+++)	4% (-)	5%	8% (+++)	7%	6%	4% (-)
These products are toxic, do not respect the environment	4%	3% (-)	5% (++)	3% (---)	5% (+++)	4%	3% (-)	6% (++)	6% (++)	2% (---)	5%
These products are toxic, dangerous to the health	3%	3% (-)	4% (+)	3%	3%	2% (-)	4% (+)	3%	3%	2% (-)	4% (+)
These products damage surfaces	3%	2%	3%	2% (-)	4% (++)	4% (++)	2%	3%	3%	2%	3%
Make my own natural cleaning products	2%	1% (-)	3% (++)	3% (+++)	1% (---)	3% (+)	2%	1%	2%	2%	2%
Other	4%	5% (+++)	2% (---)	4%	4%	4%	4%	3%	6% (+++)	2% (---)	3%
Do not use type 2 products	67%	67%	68%	73% (+++)	64% (---)	72% (++)	71% (++)	60% (---)	65%	69%	68%

We do not observe any significant differences between the different profiles of the respondents as regards the different reasons highlighted.





### 2.3. Justifications for the use of PT2

Among the various reasons given for using PT2, three in particular stand out:

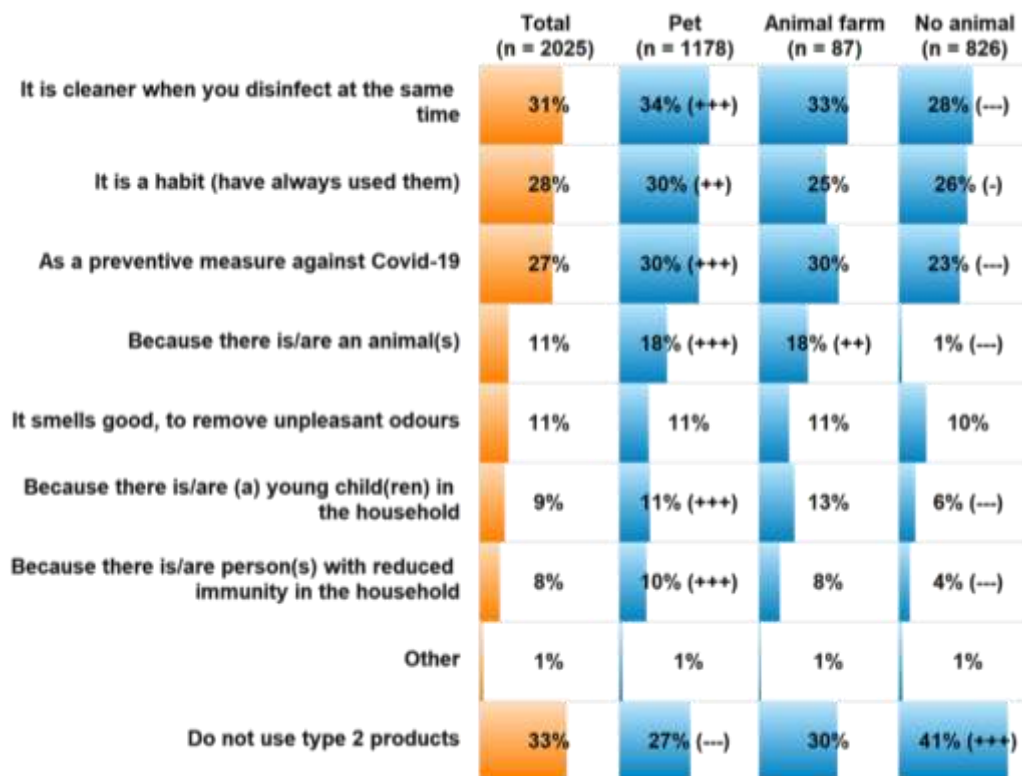
- the sense of enhancing cleanliness ("it's cleaner when you disinfect at the same time"), cited by 31% of respondents (especially women and French-speakers)
- habit, indicated by 28% of respondents (more women, French-speakers and city dwellers)
- it is a preventive measure against Covid-19, indicated by 27% of the respondents (cited more frequently by people who are professionally active, 30%).

Less frequently, the following reasons are also given:

- the presence of animals (11%)
- the pleasant aroma (11%)
- the presence of children (9%)
- the presence of people with lower immunity (8%).

These results are transversal according to the different profiles of the respondents.

*Q: Why do you use this type of product?*



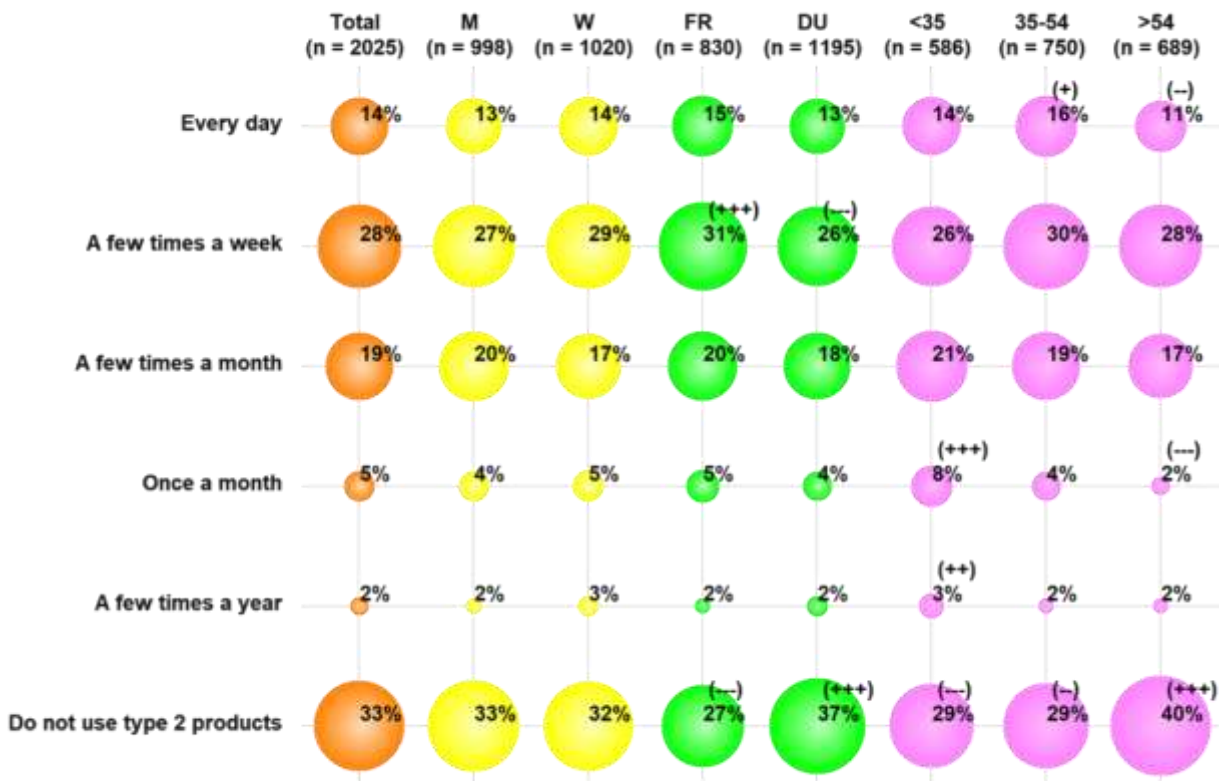


## 2.4. Frequency of use of PT2

42% of Belgians use type 2 biocidal products once or more per week, 14% of them every day. In the latter case, it is most often parents of young children (under 12) and people who have an animal (pet or farm animal).

19% use this type of product a few times a month and 7% less regularly.

Q: How often do you use this type of product ?



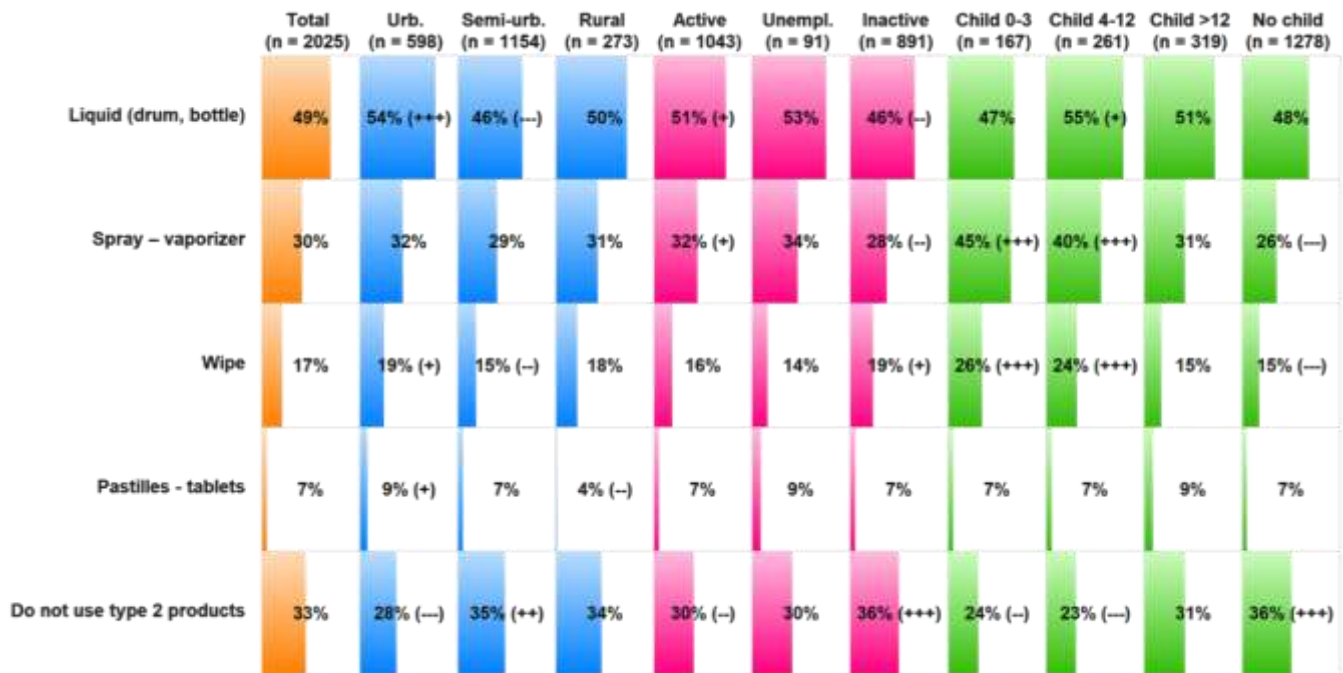
## 2.5. Purchased forms

Among the different forms available on the market, the most frequently purchased formulation is the liquid form (in a bottle / container) (49%), followed by sprays/vaporizers (30%), wipes (17%) and tablets (7%).

Sprays/vaporisers are most often used by parents of young children (under 12). Containers are more often used by people who live in urban areas.



Q: In what forms have you already purchased this type of product ?



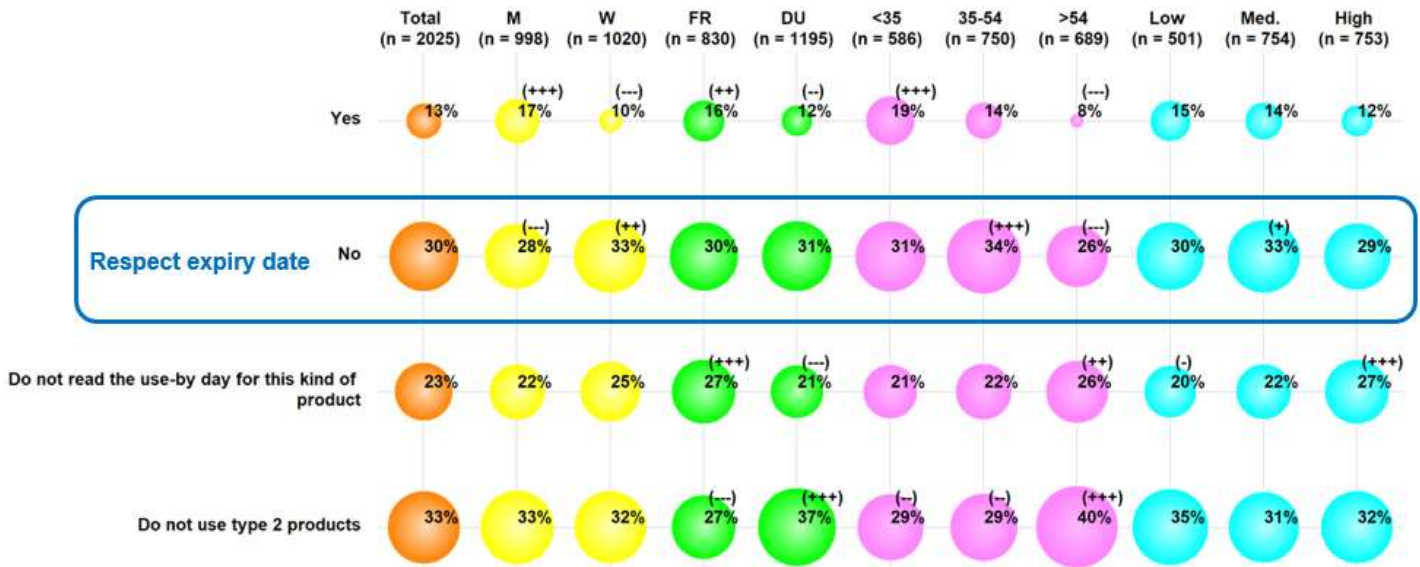
## 2.6. Awareness of and compliance with the use-by date of PT2

As regards the instructions for the use-by date,

- 23% of respondents do not read it
- 13% read it, but do not comply with it (17% of men vs. 10% of women)
- 30% say they comply with it (including 33% of women vs. 28% of men).



Q: Have you ever used these types of products past their use-by date?



## 2.7. Destination after use

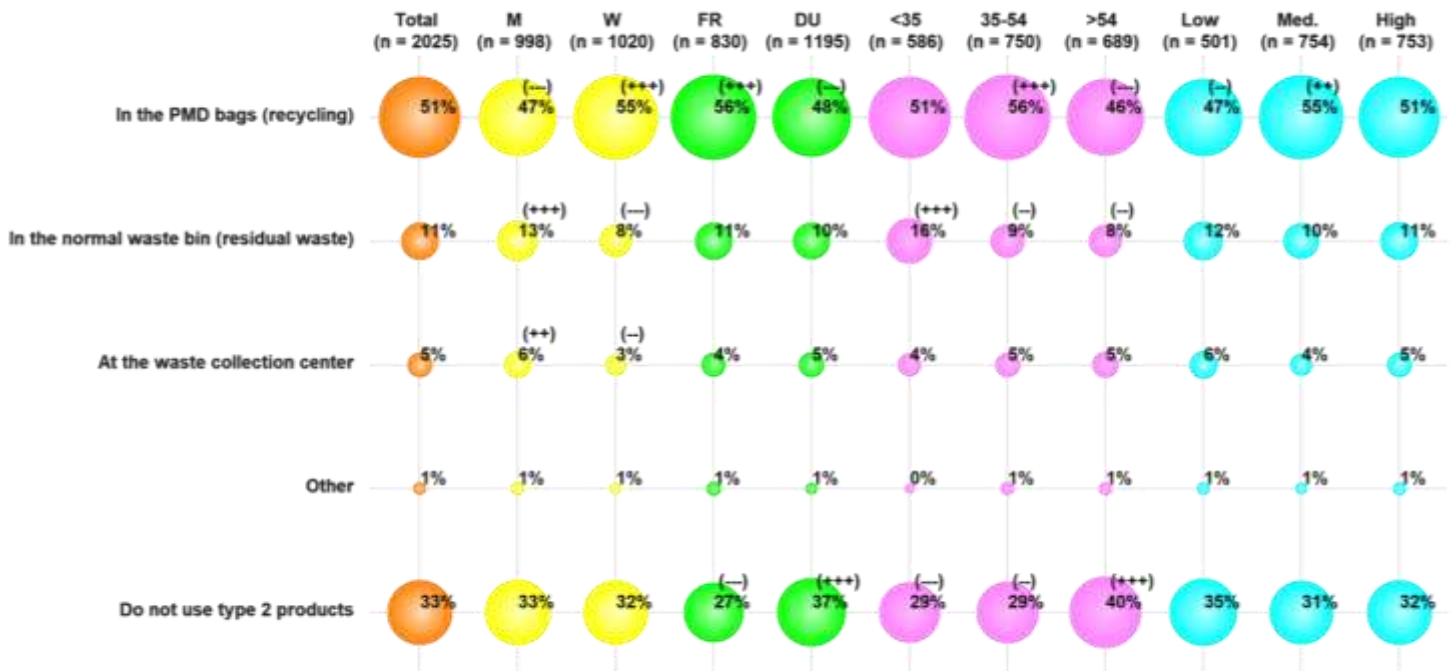
In Brussels and Flanders, empty packaging and leftover PT2 products can be classified as 'PMD' waste for recycling (Plastic or Metal packaging and Drink cartons), except the packaging with a childproof closure or hazard symbols 'acute toxic' or 'health hazard' : those must be taken to the waste disposal centre. In the Walloon region, the packaging with a 'flammable' hazard symbol must also be taken to the waste disposal centre.

### 2.7.1. Destination of the packaging after use

**Almost half of the Belgians throw packaging in the PMD bags (51%),** especially women (55% vs. 47% of men), people aged between 35-54 (56%), people with a CESS (55%), parents with children under 12 (60 and 59%), people in employment (53%) and people with a pet (56%). **11% of respondents throw them away with conventional waste** (general waste). They are more likely to be men (13%), under 35 years old (16%) and city dwellers (15%). Finally, **5% take them to the waste disposal centre** (more men: 6%).



Q: Where do you most often dispose of the packaging for this type of product?

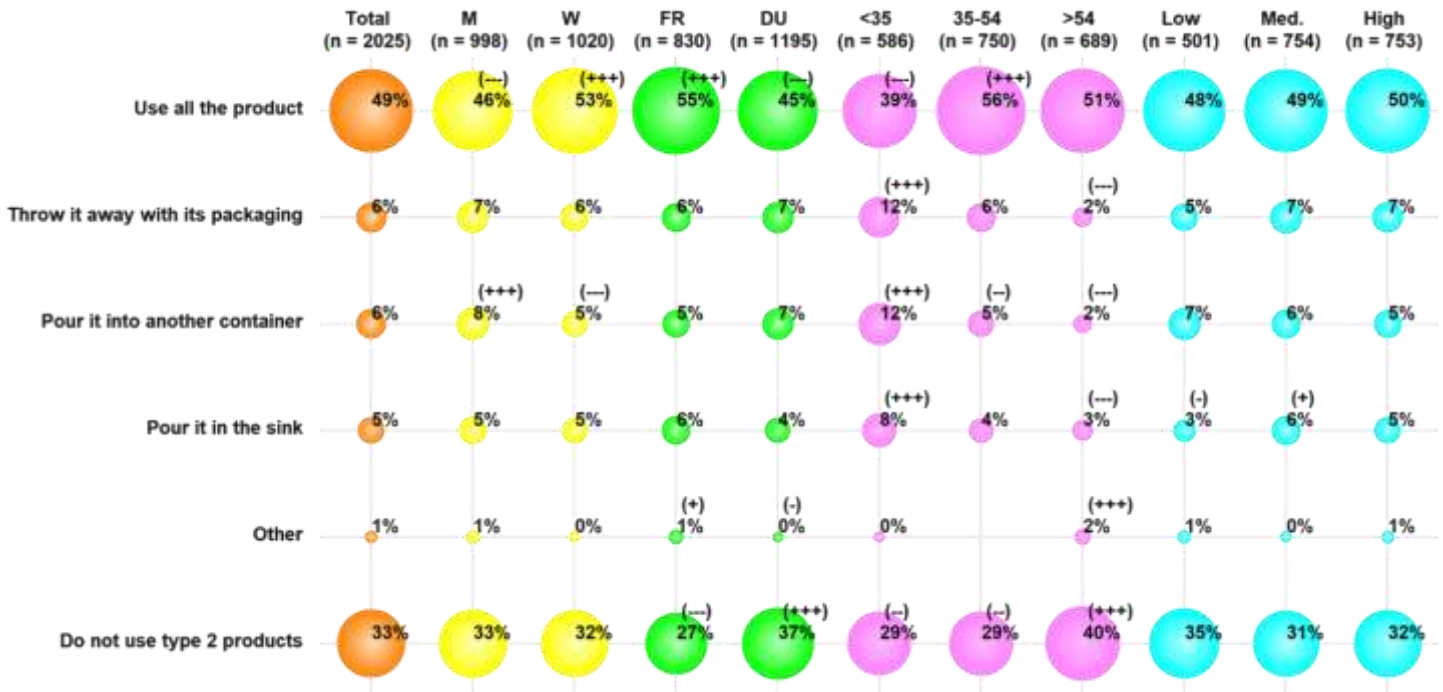




## 2.7.2. Destination of any leftover product after use

49% of Belgians use the product entirely, 6% throw away any leftover product with the packaging, 6% pour them into a new container and 5% pour them down the sink.

Q: Where do you most often dispose of the leftover product for this type of product?



Very few significant differences were found. Nevertheless, we observe that:

- women are more likely to use the product entirely (53% vs. 46% of men), while men are more likely to transfer it to another container (8% vs. 5% of women).
- 35-54 year olds are more likely to use the product entirely than younger people (56% vs. 39%), while the latter are more likely to throw away any leftover product with the packaging or to transfer it to another container, or pour it down the sink.

## 2.8. Criteria for choosing when buying a PT2 product

On average, the respondents indicate 3 criteria that they take into account when purchasing a PT2. The most frequently cited criterion is **price** (36%), followed by **ease of use** (22%) and the **efficacy of the disinfecting action** (20%).





Other criteria were also mentioned (cited in order of importance when taking into account the total sample) such as:

- brand awareness (16%)
- the perfume (15%)
- respect for the environment (12%)
- the large size of the packaging (12%)
- no toxicity or danger to animals (11%)
- the small size of the packaging (10%)
- the fact that it does not need to be diluted (10%)
- the hypoallergenic aspect (9%)
- the presence of clear and legible instructions for use (8%)
- any promotions (8%)
- the fact it is also suitable for children (4%)
- advertising for a specific brand (2%)

The order of these choice criteria depends on the socio-demographic characteristics of the respondents. The tables below show the different variations according to the specific profiles.

*Q: When you are shopping for these type of products, what criteria do you consider when buying a specific product?*

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)
The price	36%	37%	36%	41% (+++)	33% (---)
Easy to use	22%	21%	22%	23%	21%
Higher disinfecting power than other products	20%	18% (-)	22% (+)	28% (+++)	15% (---)
Renowned brand	16%	14%	17%	18% (++)	14% (-)
The fragrance	15%	12% (---)	18% (+++)	18% (+++)	13% (---)
The product is environmentally friendly	12%	12%	11%	12%	12%
Large size	12%	13%	11%	12%	11%
The product is not harmful or toxic to animals	11%	10%	12%	12% (+)	10% (-)
Small size	10%	13% (+++)	7% (---)	9%	11%
The product can be used as is, without being diluted with water	10%	8% (-)	11% (++)	11% (+)	9% (-)
The product is hypo-allergenic - does not cause allergies	9%	8%	10%	11% (+++)	8% (---)
The instructions for use are clear and legible	8%	8%	7%	9%	7%
Depending on special offers	8%	6% (---)	10% (+++)	8%	8%
The product is also suitable for children	4%	4%	5%	4%	4%
There are ads for this brand	2%	2% (-)	3% (+)	2%	2%
Other	4%	3%	4%	4%	3%
Do not use type 2 products	33%	33%	32%	27% (---)	37% (+++)



	Total (n = 2025)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)	Low (n = 501)	Med. (n = 754)	High (n = 753)
The price	36%	39%	39% (++)	31% (—)	29% (—)	40% (++)	38%
Easy to use	22%	20%	21%	24% (++)	17% (—)	22%	25% (++)
Higher disinfecting power than other products	20%	21%	21%	19%	20%	20%	21%
Renowned brand	16%	17%	17%	13% (—)	14%	17%	15%
The fragrance	15%	18% (++)	16%	11% (—)	12% (—)	16%	16%
The product is environmentally friendly	12%	11%	11%	13%	12%	12%	12%
Large size	12%	16% (+++)	11%	9% (—)	11%	14% (+++)	10% (—)
The product is not harmful or toxic to animals	11%	12%	11%	9%	11%	11%	10%
Small size	10%	15% (+++)	8% (—)	9%	12% (+)	9%	10%
The product can be used as is, without being diluted with water	10%	9%	8%	11%	10%	10%	9%
The product is hypo-allergenic - does not cause allergies	9%	9%	9%	9%	8%	9%	10%
The instructions for use are clear and legible	8%	6% (—)	8%	10% (++)	9%	8%	7%
Depending on special offers	8%	7%	8%	8%	8%	8%	7%
The product is also suitable for children	4%	6% (++)	4%	3% (—)	4%	4%	5%
There are ads for this brand	2%	4% (+++)	2%	1% (—)	1% (—)	3%	3%
Other	4%	6% (+++)	3%	2% (—)	4%	4%	3%
Do not use type 2 products	33%	29% (—)	29% (—)	40% (+++)	35%	31%	32%

	Total (n = 2025)	Urb. (n = 598)	Semi-urb. (n = 1154)	Rural (n = 273)	Active (n = 1043)	Unempl. (n = 91)	Inactive (n = 891)
The price	36%	37%	36%	35%	37%	44%	34% (—)
Easy to use	22%	24%	22%	17% (—)	21%	21%	22%
Higher disinfecting power than other products	20%	23% (++)	18% (—)	23%	19%	19%	21%
Renowned brand	16%	15%	16%	17%	16%	12%	15%
The fragrance	15%	18% (++)	13% (—)	14%	15%	16%	14%
The product is environmentally friendly	12%	12%	12%	11%	11%	7%	14% (++)
Large size	12%	16% (+++)	10% (—)	12%	12%	16%	11%
The product is not harmful or toxic to animals	11%	12%	11%	9%	10%	11%	12% (+)
Small size	10%	12% (+)	10%	5% (—)	11%	11%	9%
The product can be used as is, without being diluted with water	10%	12% (++)	9%	7%	7% (—)	6%	12% (+++)
The product is hypo-allergenic - does not cause allergies	9%	10%	9%	10%	8%	9%	10%
The instructions for use are clear and legible	8%	9%	8%	5% (—)	6% (—)	7%	11% (+++)
Depending on special offers	8%	8%	8%	7%	7%	2% (—)	9% (++)
The product is also suitable for children	4%	4%	4%	5%	5%	4%	4%
There are ads for this brand	2%	2%	2%	2%	3% (++)	0%	2%
Other	4%	3%	4%	5%	4%	4%	3%
Do not use type 2 products	33%	28% (—)	35% (++)	34%	30% (—)	30%	36% (+++)





	Total (n = 2025)	Child 0-3 (n = 167)	Child 4-12 (n = 261)	Child >12 (n = 319)	No child (n = 1278)
The price	36%	38%	42% (++)	37%	35% (-)
Easy to use	22%	21%	19%	21%	23%
Higher disinfecting power than other products	20%	28% (++++)	19%	21%	19%
Renowned brand	16%	23% (++++)	18%	14%	15%
The fragrance	15%	20% (+)	19% (+)	16%	13% (---)
The product is environmentally friendly	12%	7% (-)	9%	13%	13% (+)
Large size	12%	14%	14%	8% (-)	12%
The product is not harmful or toxic to animals	11%	9%	12%	11%	11%
Small size	10%	11%	11%	10%	10%
The product can be used as is, without being diluted with water	10%	12%	8%	10%	9%
The product is hypo-allergenic - does not cause allergies	9%	10%	11%	9%	9%
The instructions for use are clear and legible	8%	6%	6%	8%	8%
Depending on special offers	8%	6%	10%	7%	8%
The product is also suitable for children	4%	13% (++++)	8% (++++)	4%	3% (---)
There are ads for this brand	2%	2%	5% (++++)	2%	2% (-)
Other	4%	5%	4%	2% (-)	4%
Do not use type 2 products	33%	24% (-)	23% (-)	31%	36% (++++)

	Total (n = 2025)	Pet (n = 1178)	Animal farm (n = 87)	No animal (n = 826)
The price	36%	39% (++++)	26% (-)	33% (-)
Easy to use	22%	24% (++)	25%	19% (-)
Higher disinfecting power than other products	20%	22% (+)	17%	18% (-)
Renowned brand	16%	17% (++++)	13%	13% (-)
The fragrance	15%	16% (+)	13%	13% (-)
The product is environmentally friendly	12%	13% (++)	9%	10% (-)
Large size	12%	14% (++++)	8%	8% (---)
The product is not harmful or toxic to animals	11%	16% (++++)	10%	4% (---)
Small size	10%	11%	10%	9%
The product can be used as is, without being diluted with water	10%	11% (++)	14%	8% (-)
The product is hypo-allergenic - does not cause allergies	9%	10% (+)	8%	8% (-)
The instructions for use are clear and legible	8%	9% (++++)	9%	6% (---)
Depending on special offers	8%	8%	5%	8%
The product is also suitable for children	4%	5% (++)	7%	3% (---)
There are ads for this brand	2%	3% (++)	2%	1% (-)
Other	4%	4%	5%	4%
Do not use type 2 products	33%	27% (---)	30%	41% (++++)

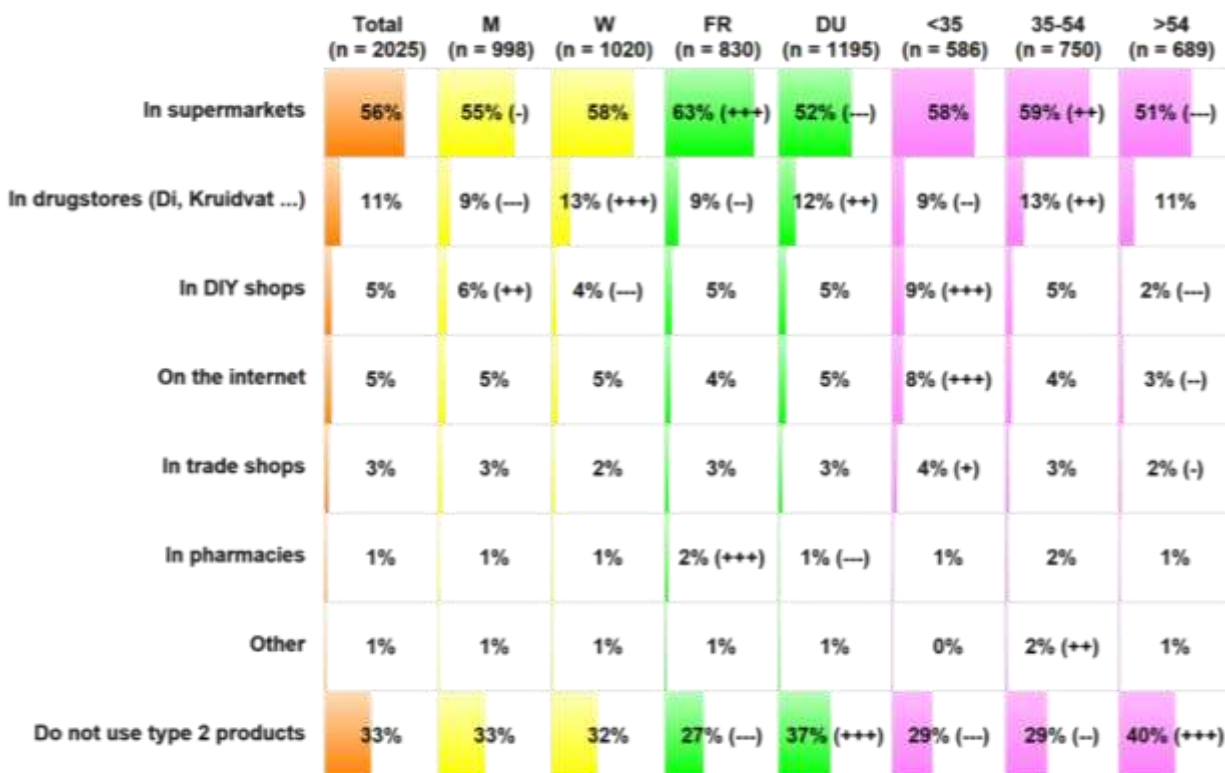


## 2.9. The places of purchase for PT2

The supermarkets are clearly the main place where Belgians buy type 2 biocidal products. Indeed, 56% of respondents buy the product in the supermarket and, if we consider only the users, this represents more than 83% of the respondents.

Drugstores are in second place (11% of the total sample) and are more common among women and Dutch-speakers. These are followed by DIY stores (5%) and the Internet (5%: more popular among young people under 35) as well as specialist stores (3%).

Q: Where do you buy these types of products?



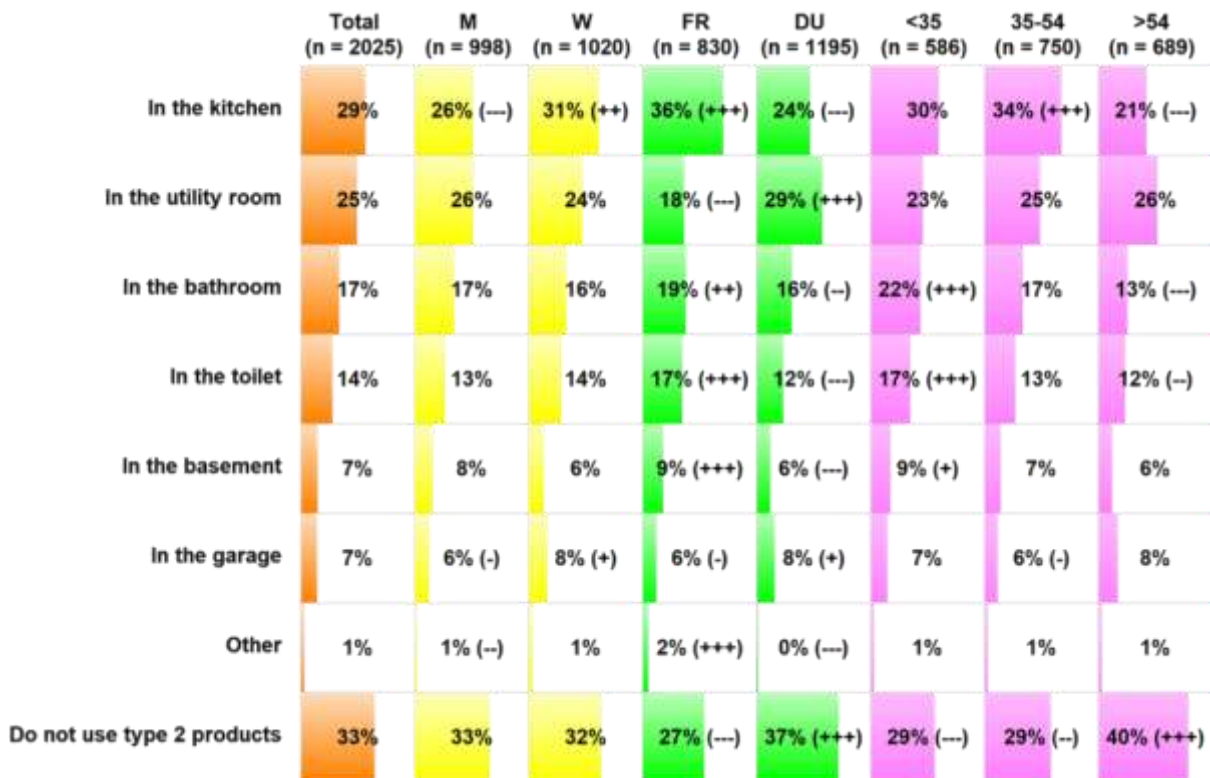
## 2.10. Storing PT2 products

53% of respondents store their PT2 cleaning products in the same place, while 14% store them in several places. The rooms in which the products are stored are (regardless of whether they are all in one place or not):

- the kitchen (29%)
- the storage/utility room (25%)
- the bathroom (17%)
- the toilets (14%)
- in the basement or laundry room (7%).

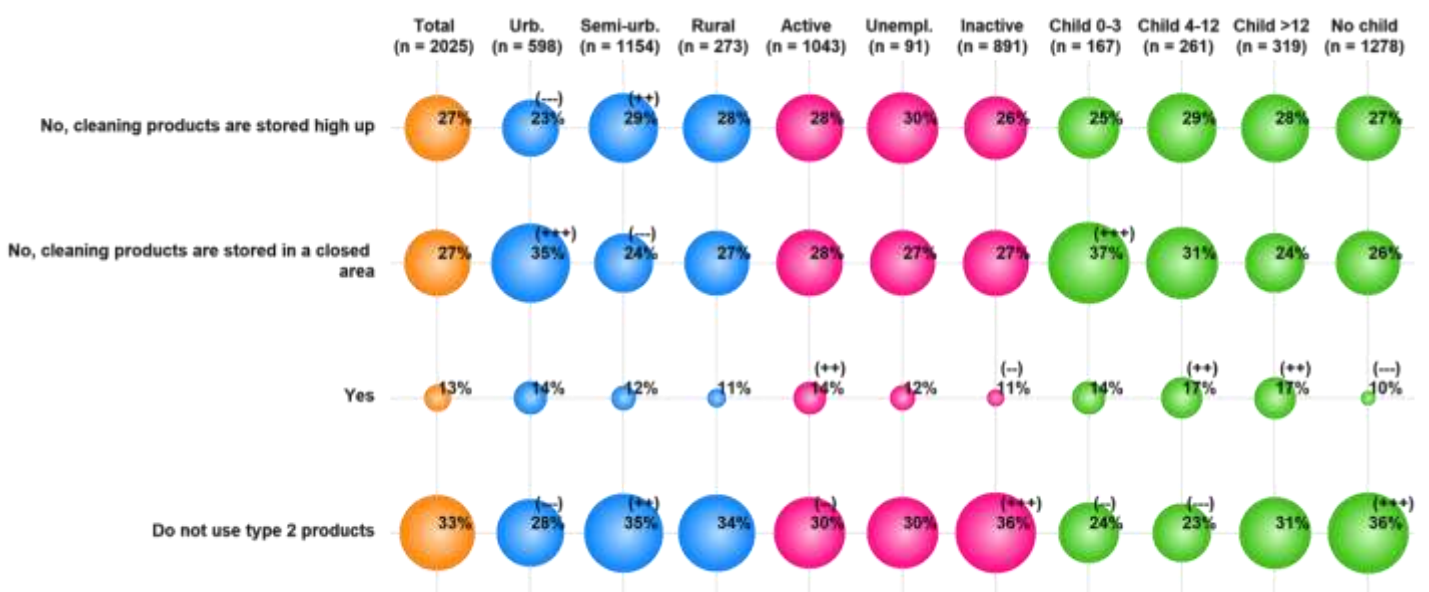


Q: In which room(s) do you store these products?



The majority of respondents (54%) are careful to store these products in a place that is inaccessible to children. Indeed, half of them store them out of reach (27%) and the other half in a locked area (27%). On the other hand, 13% of respondents report that the products are easily accessible to children.

Q: Are your cleaning products accessible to young children?





## 2.11. Reading and applying the information on the packaging

### 2.11.1. Extent to which the information on the packaging is read before purchase

Regarding the attention to the information on the packaging of type 2 biocidal products before the purchase,

- 15% of Belgians read the entire label,
- 21% quickly skim read it,
- 15% only read a part or specific parts and
- 16% do not read it at all.

These results are generally comparable to those for type 1 biocidal products. If we consider only the users ("consumers") of PT2, we find the following percentages: 22% read the entire label, 31% quickly skim it, 22% only read a part or specific parts, and 24% do not read it at all.

*Q: Before purchasing, do you read the label on the product packaging?*



We observe very few significant differences according to the socio-demographic profile of all respondents.



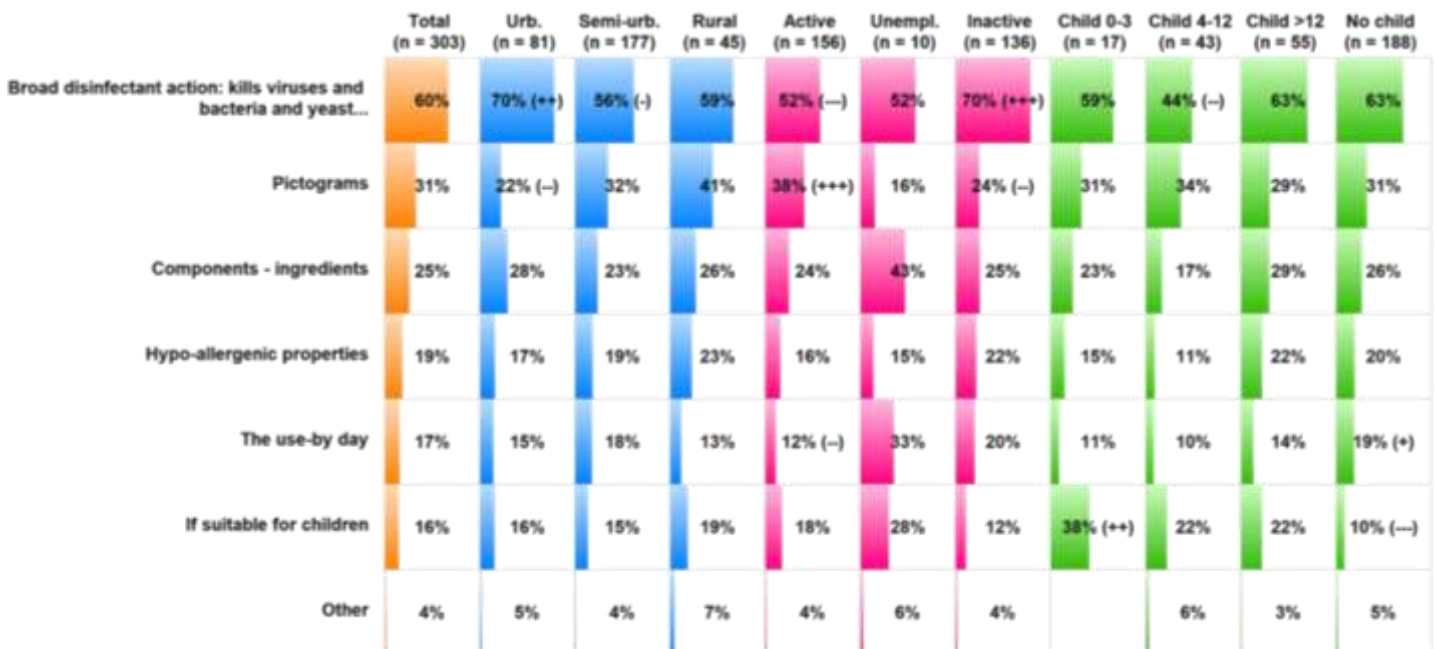


### 2.11.2. Information scanned in the case of partial reading

In the case where the respondent partially reads the label (15% of the total sample, i.e. 303 respondents), the information scanned is:

- **the broad disinfecting action** (kills viruses, bacteria, yeast, etc.) (60% of respondents, older people, those with a lower level of education or living in a city and who are unemployed are more likely to indicate this)
- **the hazard symbols** (31%, more young people <35 years old and professionally active people)
- **the ingredients** (25%, no difference according to the profile)
- **the hypoallergenic properties** (19%, transversal results)
- **the use-by date** (17%, transversal results)
- **whether it is suitable for children** (16%, more among parents with young children: 38%)

Q: What part(s) do you read?

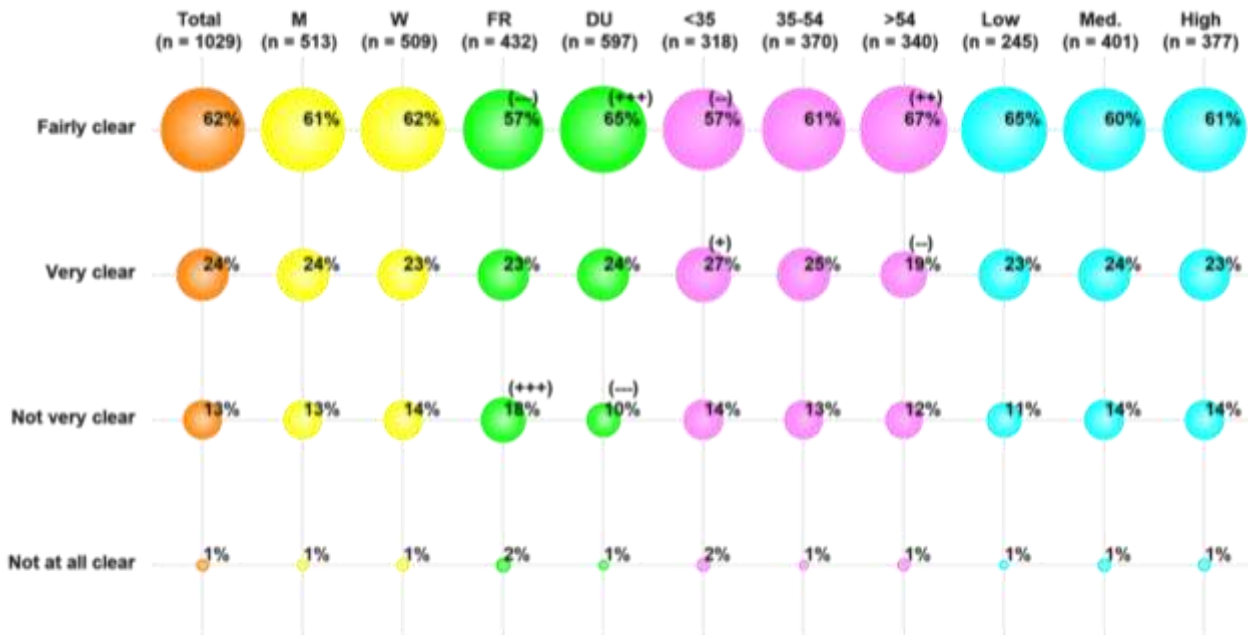


### 2.11.3. Evaluation of the clarity of the information provided

Among the persons who use PT2 products and read through the label (n=1,029), 14% of respondents find the available information unclear (13%) or not clear at all (1%). When comparing the different profiles, this is more prevalent among French-speaking respondents (20% of them consider that the information on the label is not clear, compared to 11% of Dutch-speakers).



Q: In your opinion, is the information on the packaging very clear, somewhat clear, not very clear or not at all clear?



Among the respondents who do not find the information clear (i.e., those who answered "not very clear" or "not at all clear" to the above question), the most common problems encountered are difficulties in being able to read the information and difficulties in understanding it. Indeed, among the 150 respondents who highlighted a problem with the clarity, the following reasons were given (ranked in order of importance):

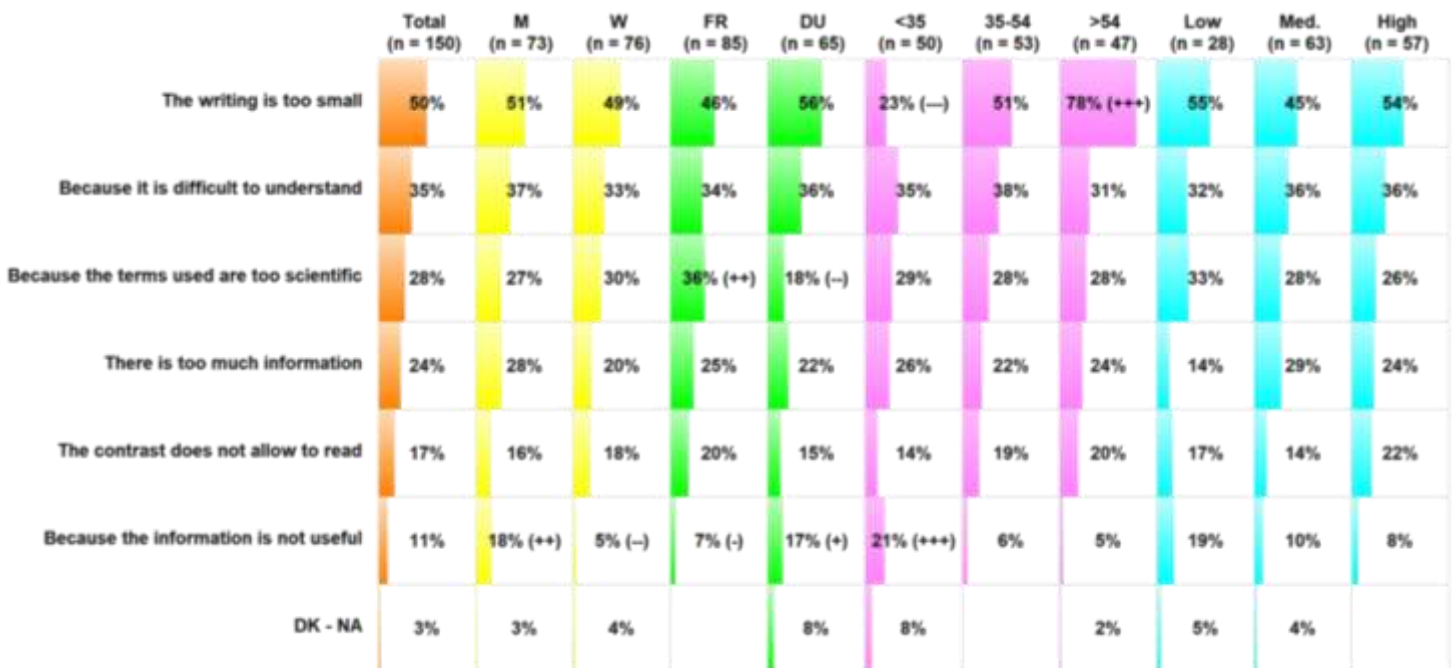
- "It's too small" (50%, more so for people 55 and over: 78%)
- "It's difficult to understand" (35%, no significant difference between the profiles)
- "the terms used are too scientific" (28%, cited more by French-speakers: 36% vs 18% for Dutch-speakers)
- "There is too much information" (24%, transversal results)
- "the contrast makes it impossible to read" (17%, transversal results)
- "the information is not useful" (11%, transversal results)

3% of respondents did not know, or preferred not to answer (DK-NA).





Q: Why is it not clear?



#### 2.11.4. Reasons given for not reading the labels

**For respondents who quickly skim the labels** (n=423), the same two problems were indicated: the problem of readability and the vocabulary which is difficult to understand. However, the most frequently cited response was that there was no need to read the labels for these types of products (this was more common among women and those over the age of 54).



Q: Why do you not read the entire label?

	Total (n = 423)	M (n = 215)	W (n = 205)	FR (n = 171)	DU (n = 252)	<35 (n = 143)	35-54 (n = 150)	>54 (n = 131)
Because I know how to use them and it works very well	31%	26% (-)	36% (++)	27%	34%	25% (-)	29%	39% (++)
Because I am unable to read it: the text is too small	28%	28%	28%	29%	27%	14% (---)	34% (++)	37% (+++)
Because I know how to use these products	27%	28%	26%	30%	24%	23%	27%	31%
Because it is often unclear, difficult to understand	17%	16%	17%	17%	17%	23% (++)	15%	13%
Because I am unable to read it: the contrast is too small	14%	16%	11%	12%	14%	21% (+++)	10%	10%
Because the terms used are too scientific	11%	11%	11%	15% (++)	7% (-)	12%	11%	8%
Because I am not interested	9%	6% (-)	12% (++)	8%	10%	18% (+++)	6%	2% (---)
Because I do not have the reflex to read it	7%	10% (+)	5% (-)	7%	7%	8%	8%	6%
Because the information is not useful	6%	7%	5%	5%	6%	11% (+++)	4%	2% (-)
Other	3%	3%	3%	2%	4%	3%	2%	4%



Respondents who do not read the labels do so because they think they know how to use the product and therefore do not see the need.

Q: Why do you not read the label?

	Total (n = 333)	M (n = 151)	W (n = 182)	FR (n = 172)	DU (n = 161)	<35 (n = 101)	35-54 (n = 159)	>54 (n = 74)
Because I know how to use these products	28%	24%	32%	30%	27%	21% (-)	28%	38% (++)
Because I am not interested	25%	29%	21%	21% (-)	29% (+)	39% (+++)	22%	11% (---)
Because I don't have the reflex to read it	24%	25%	22%	26%	21%	31% (++)	23%	15% (-)
Because I know how to use them and it works very well	21%	22%	21%	25%	18%	20%	19%	29% (+)
Because I am unable to read it: the text is too small	12%	15%	10%	13%	11%	8%	13%	16%
Because it is often unclear, difficult to understand	7%	10% (+)	5% (-)	7%	7%	5%	9%	7%
Because the terms used are too scientific	5%	5%	6%	10%	0%	8%	4%	5%
Because the information is not useful	5%	4%	6%	4%	6%	7%	5%	3%
Because I am unable to read it: the contrast is too small	3%	3%	4%	4%	3%	3%	3%	4%
Other	5%	4%	6%	6%	4%	1% (---)	6%	8%



## 2.12. Awareness of and compliance with the instructions of use

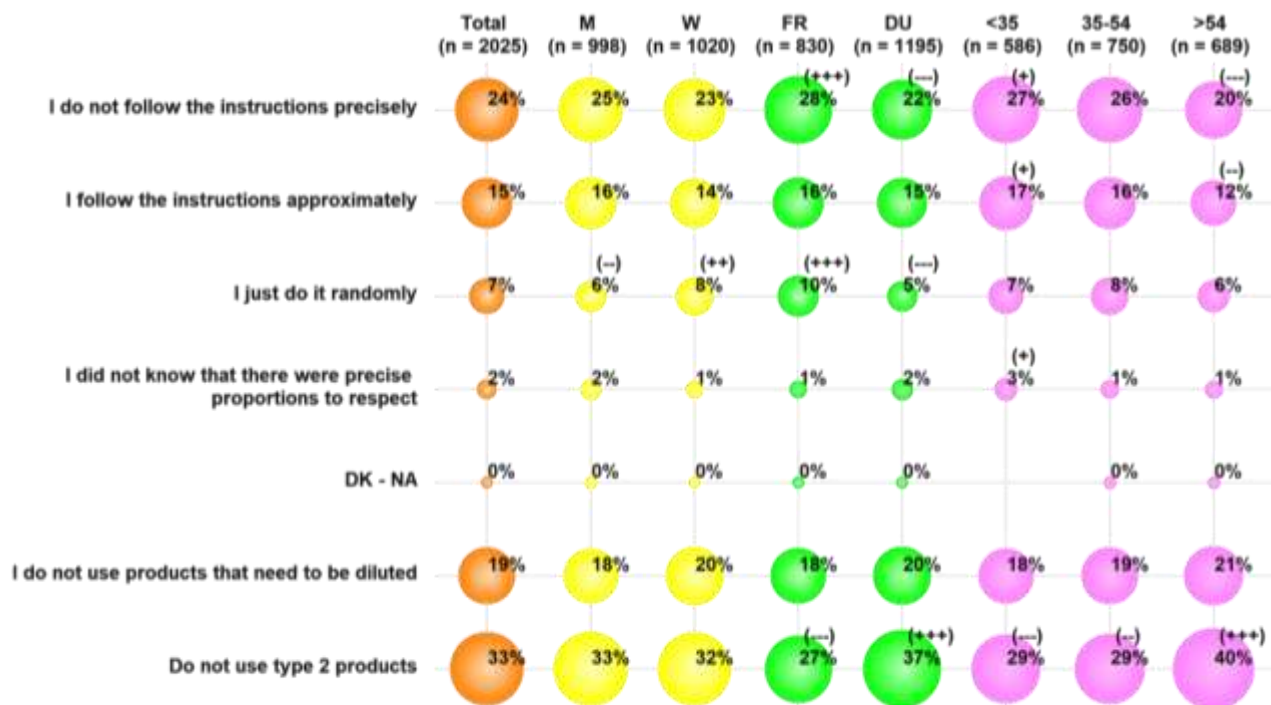
Using protection is not necessary when PT2 is used by the general public. Indeed, the authorisation holder must prove that their product can be used safely by the general public without the need for additional protection if they want to obtain the marketing authorisation. If personal protection equipment is necessary to ensure that the product is safe to use, it will not be authorised for the general public.

### 2.12.1. As regards dilution

As regards the dilution of PT2, 19% of the population use products that do not need to be diluted with water.

24% of Belgians strictly comply with the dilution instructions, 15% more or less comply with them (e.g. the amount of water is not measured precisely) and 7% say they dilute products randomly (depending on the appearance or smell of the diluted product). Finally, 2% of the population is not aware that there are dilution instructions.

Q: When you have to dilute a product with water, how carefully do you follow this instruction?

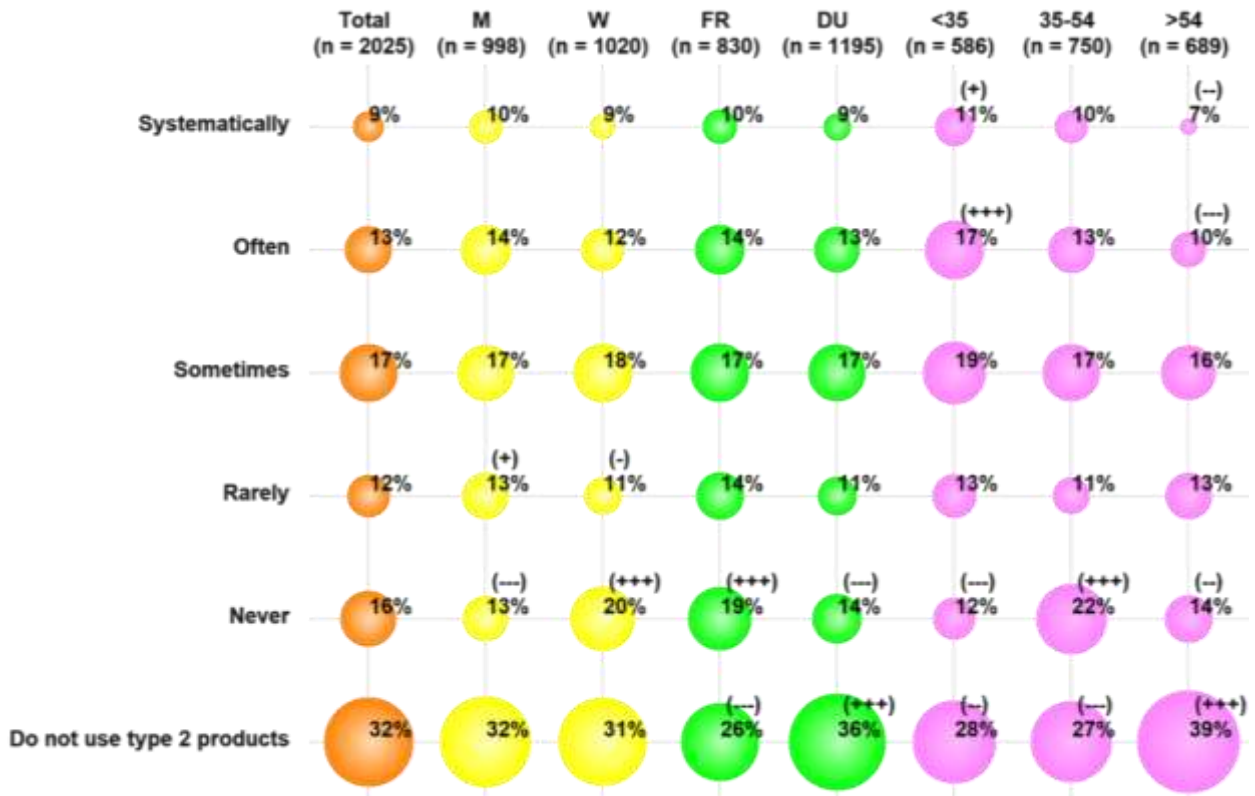




### 2.12.2. In terms of safety - use of protection

The respondents do not systematically use protection when using PT2 (58%, of which 16% indicate 'never'). Only 9% use protection systematically. The 16% of respondents who never use protection are more likely to be French-speakers, women and people aged 35-54.

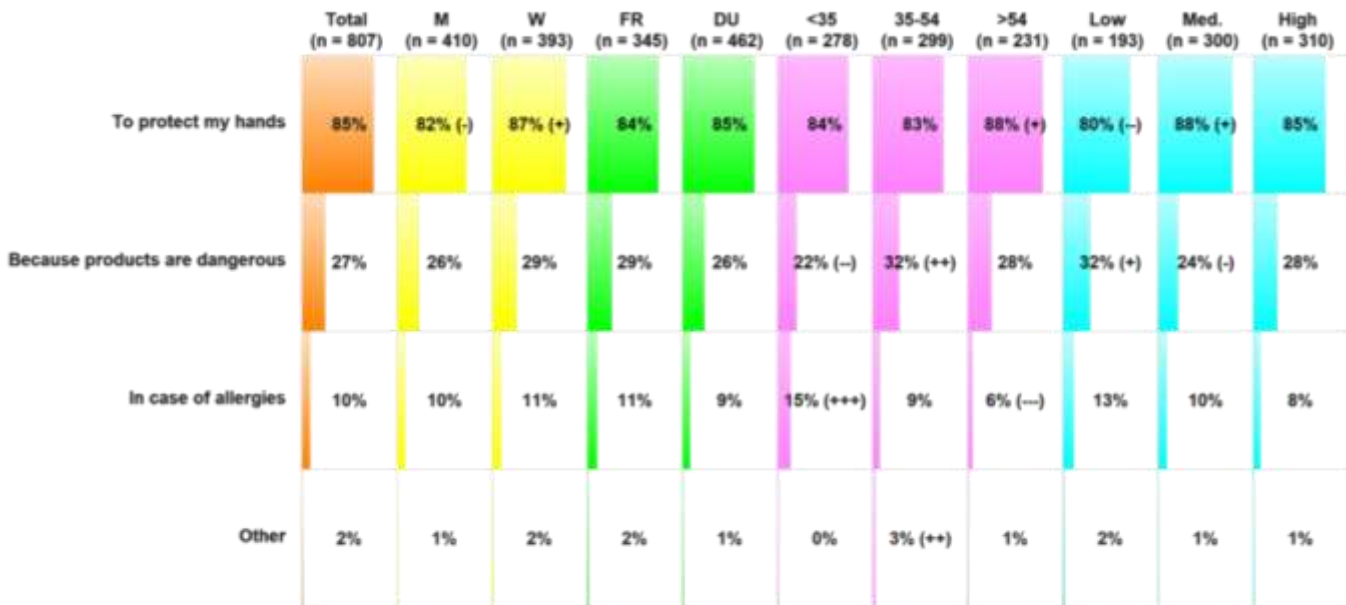
Q: Do you use any protection when using this type of product (such as gloves)?





The respondents use protection (n=807) to protect their hands (85%) and/or in case of allergy (10%). In addition, 27% highlight the hazards of this type of product.

Q: Why do you use protection when using this type of product?







### 3. The products used to disinfect surfaces that are in contact with food or animal feedstuffs (PT4)

#### 3.1. Habits of use of PT4

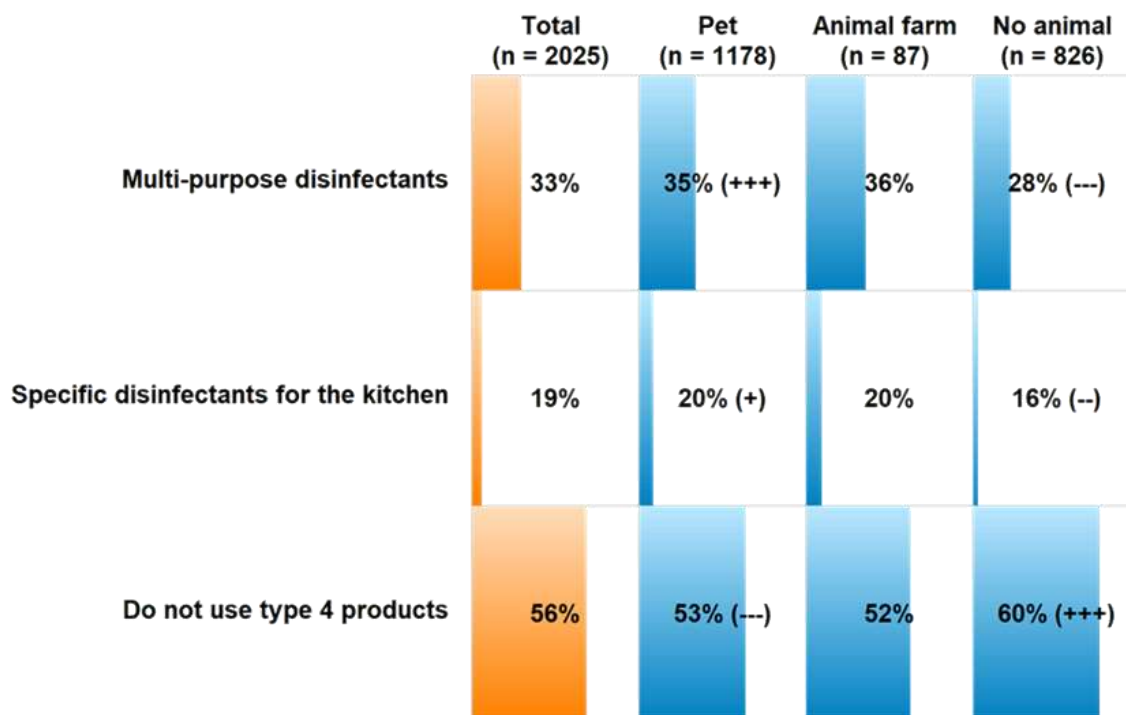
44% of Belgians have used a PT4 in the last 12 months.

Conversely, 56% of Belgians have not used one in the last 12 months.

The analysis according to socio-demographic characteristics shows several significant differences among people who do not use type 4 biocidal products. Indeed, this is more the case among

- Dutch-speakers (62% vs 48% of French-speakers)
- people aged 55 and over (61%)
- people with no children living at home (60%)
- people who do not have pets at home (60%).

*Q: In the last 12 months, have you used a cleaning product in your home to disinfect surfaces that are in contact with food or animal feedstuffs?*



Among the 44% of the Belgian population that use PT4, the most frequently used forms are multi-purpose disinfectants (33%, total sample) and specific kitchen products (19%, total sample).



### 3.2. Reasons for not using PT4

The main reason for not using PT4, indicated by 22% of the respondents (out of the total sample), is that cleaning products are more than adequate. Moreover, 7% of respondents mention the fact that these products are expensive, that they are useless (7%), that they are toxic or dangerous to health (6%) and that they harm the environment (5%). More anecdotally, 3% say that these products damage the surfaces. Furthermore, 3% of respondents prefer to use products they have made themselves. 15% of respondents did not give an answer (DK-NA).

Q: Why do you not use this type of product?

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)	Low (n = 501)	Med. (n = 754)	High (n = 753)
Cleaning products are more than enough	22%	22%	22%	21%	23%	16% (---)	20%	28% (+++)	19% (-)	21%	25% (++)
These products are expensive	7%	8%	7%	6% (-)	8% (++)	7%	7%	9%	8%	8%	6%
These products are useless	7%	7%	7%	5% (---)	8% (+++)	6%	6%	8% (+)	7%	7%	7%
These products are toxic, dangerous to the health	6%	5% (---)	8% (+++)	6%	6%	5%	7%	6%	5%	5%	7%
These products are toxic, do not respect the environment	5%	4% (-)	5% (+)	4% (-)	5% (++)	5%	4%	5%	4%	4%	6% (++)
These products damage surfaces	3%	2% (-)	4% (++)	2% (-)	4% (++)	4%	3%	3%	3%	4%	3%
I make my own natural cleaning products	3%	2% (-)	4% (++)	4% (+++)	2% (---)	5% (+++)	2%	2% (-)	2%	3%	3%
Other	3%	4% (+)	3% (-)	4% (++)	3% (-)	4% (+)	3%	2%	4% (+)	2% (-)	3%
DK - NA	15%	19% (+++)	11% (---)	10% (---)	18% (+++)	15%	14%	15%	19% (+++)	14%	13% (-)
Utilisent des produits de type 4	44%	42% (-)	46% (+)	52% (+++)	38% (---)	46%	47% (++)	39% (---)	41%	44%	46%

### 3.3. Reasons for using PT4

The use of a disinfectant in addition to a cleaning product enhances the sense of cleanliness for 19% of the population. We also see that 18% use these products out of habit. The pandemic also plays a significant role : 17% of respondents indicate using PT4 as a preventive measure against the spreading of Covid-19. The presence of animals is a significant factor (8%) as well as the presence of young children (6%) or people with lower immunity (5%). Finally, 5% of the respondents give as the reason for using type 4 biocidal products the pleasant smell or the fact they eliminate unpleasant odours.

These results are quite transversal according to the different profiles of the respondents.



Q: Why do you use this type of product?

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)
It is cleaner when you disinfect at the same time	19%	17% (-)	21% (++)	25% (+++)	16% (---)	19%	21%	18%
It is a habit (have always used them)	18%	17% (-)	20% (+)	23% (+++)	15% (---)	15% (---)	21% (++)	19%
As a preventive measure against Covid-19	17%	17%	17%	19%	16%	18%	18%	15%
Because there is/are an animal(s)	8%	7% (-)	9% (+)	10% (+++)	6% (---)	9%	7%	8%
Because there is/are (a) young child/ren in the household	6%	6%	7%	7% (++)	5% (-)	10% (+++)	7%	1% (---)
It smells good, to remove unpleasant odours	5%	5%	6%	6%	5%	6%	5%	5%
Because there is/are person(s) with reduced immunity in the household	5%	4%	5%	6% (+)	4% (-)	5%	5%	4%
Other	0%	0%	0%		0%		0%	0%
Do not use type 4 products	56%	58% (+)	54% (-)	48% (---)	62% (+++)	54%	53% (-)	61% (+++)

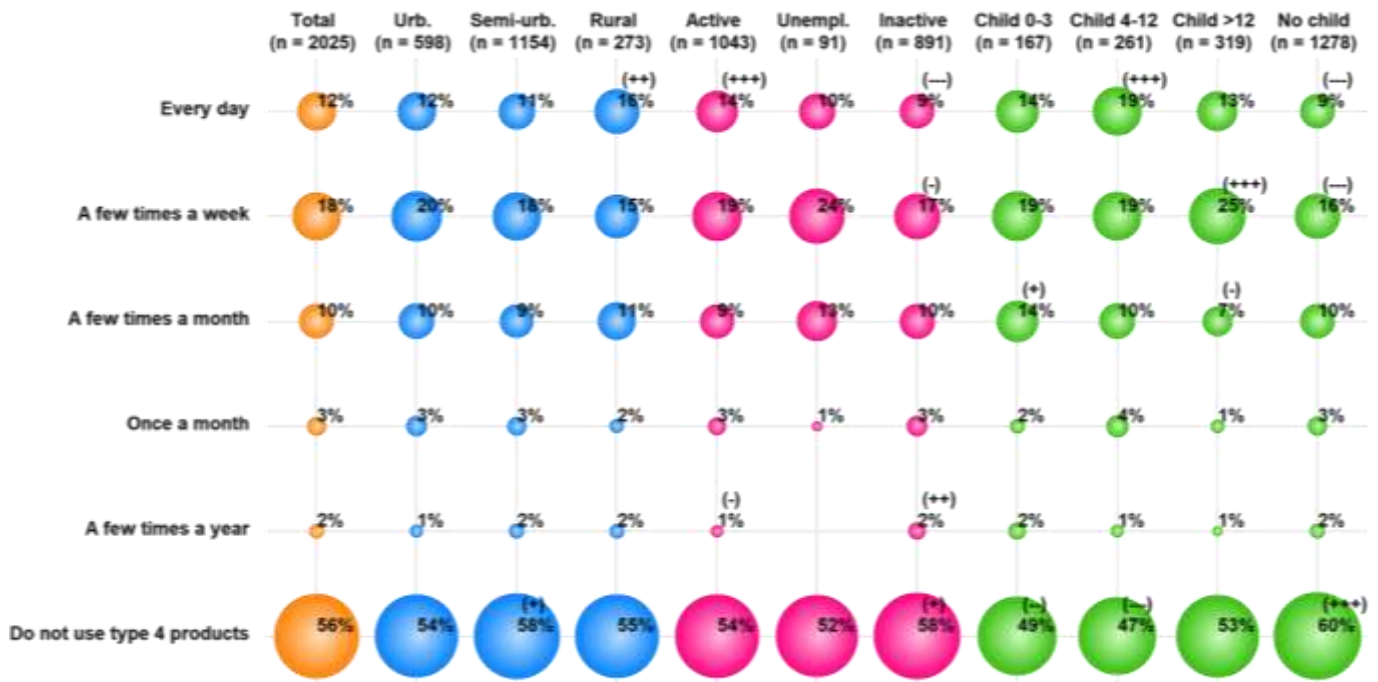
### 3.4. Frequency of use of PT4

12% of Belgians use PT4 on a daily basis, 18% once or several times a week and 10% a few times a month. Only 5% use them once a month or less.

Parents of children aged 4 to 12, people living in rural areas, French-speakers, people aged 35 to 54, people in employment and women are more likely to use these products on a daily basis.



Q: How often do you use these products?



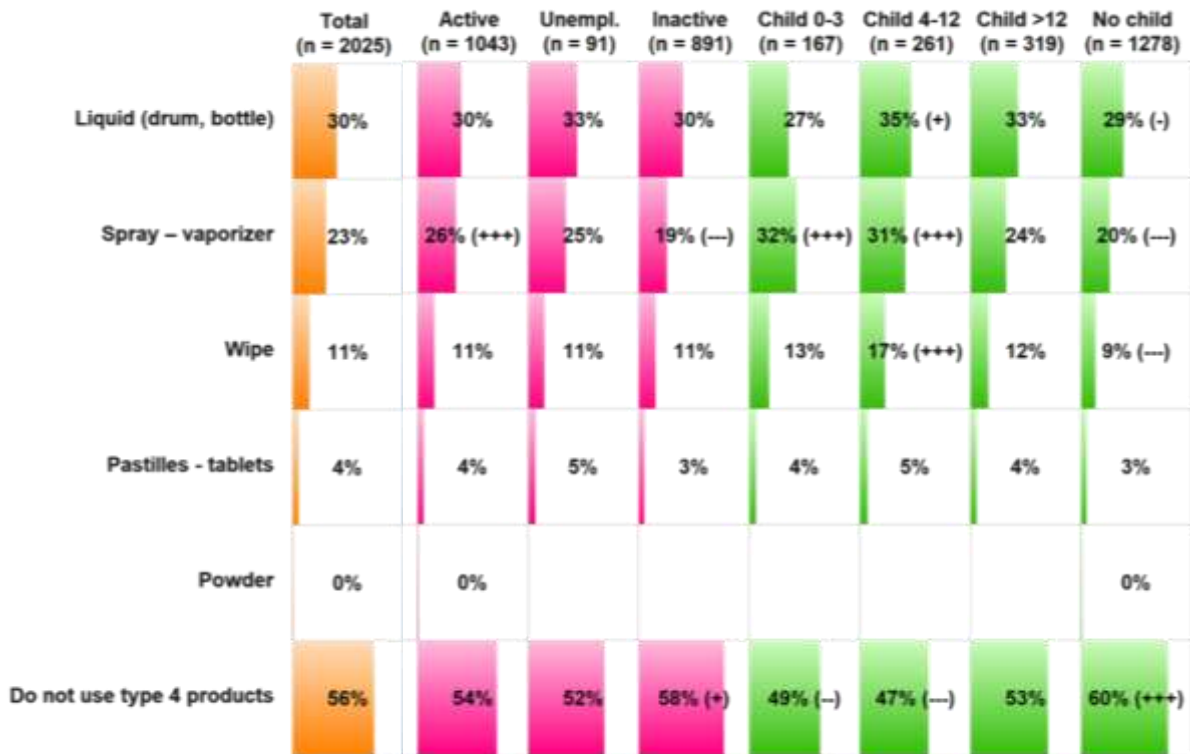
### 3.5. Purchased forms

Among the different forms available on the market, the most frequently purchased formulation is the liquid (in a bottle/container) (30% or 68% of PT4 users), followed by sprays/vaporizers (23%, or 52% of PT4 consumers), wipes (11%, or 25% of PT4 users) and tablets (4%, or 11% of PT4 users). The same hierarchy can be seen as with PT2.

Sprays/atomisers are used more often by parents of young children (under 12 years old), French-speakers, people under 55 years old, women and people in employment.



Q: In what form(s) have you already purchased this type of product?



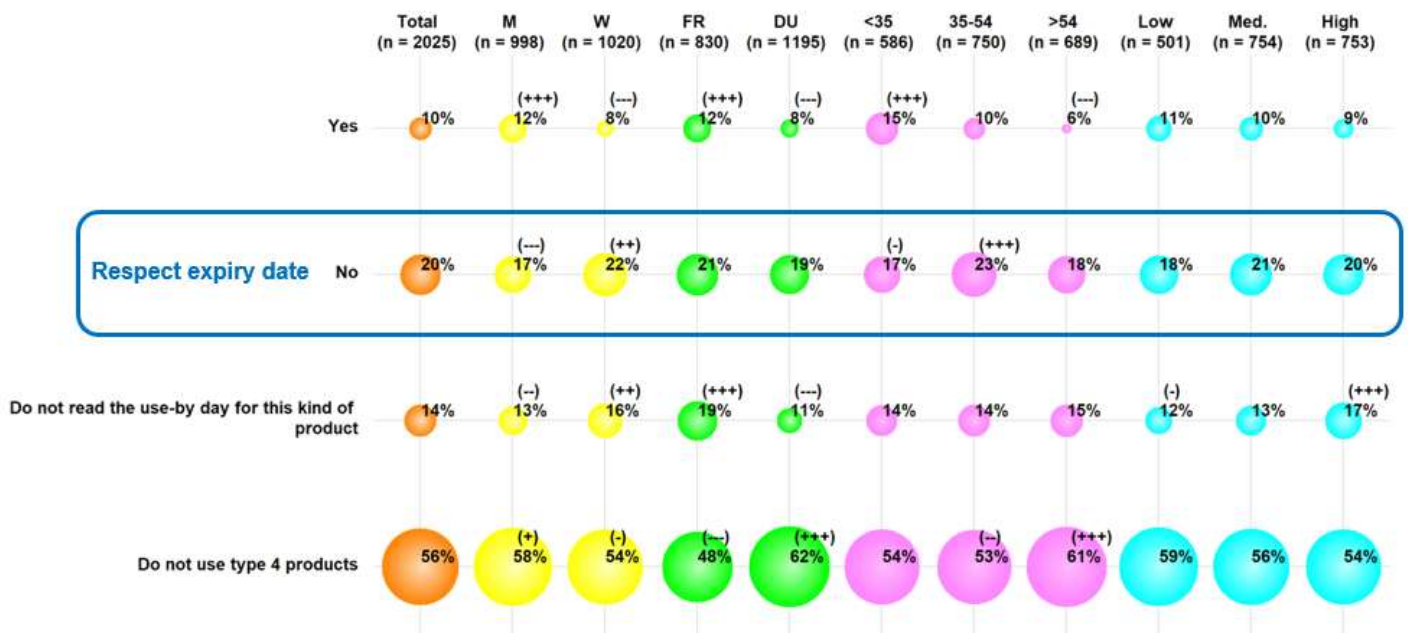


### 3.6. Awareness of and compliance with the use-by date of PT4

As regards the instructions for the use-by date,

- 14% of respondents do not read it
- 10% read it, but do not comply with it (12% of men vs. 8% of women)
- 20% say they comply with it (including 22% of women vs. 17% of men).

Q: Have you ever used these types of products past their use-by date?







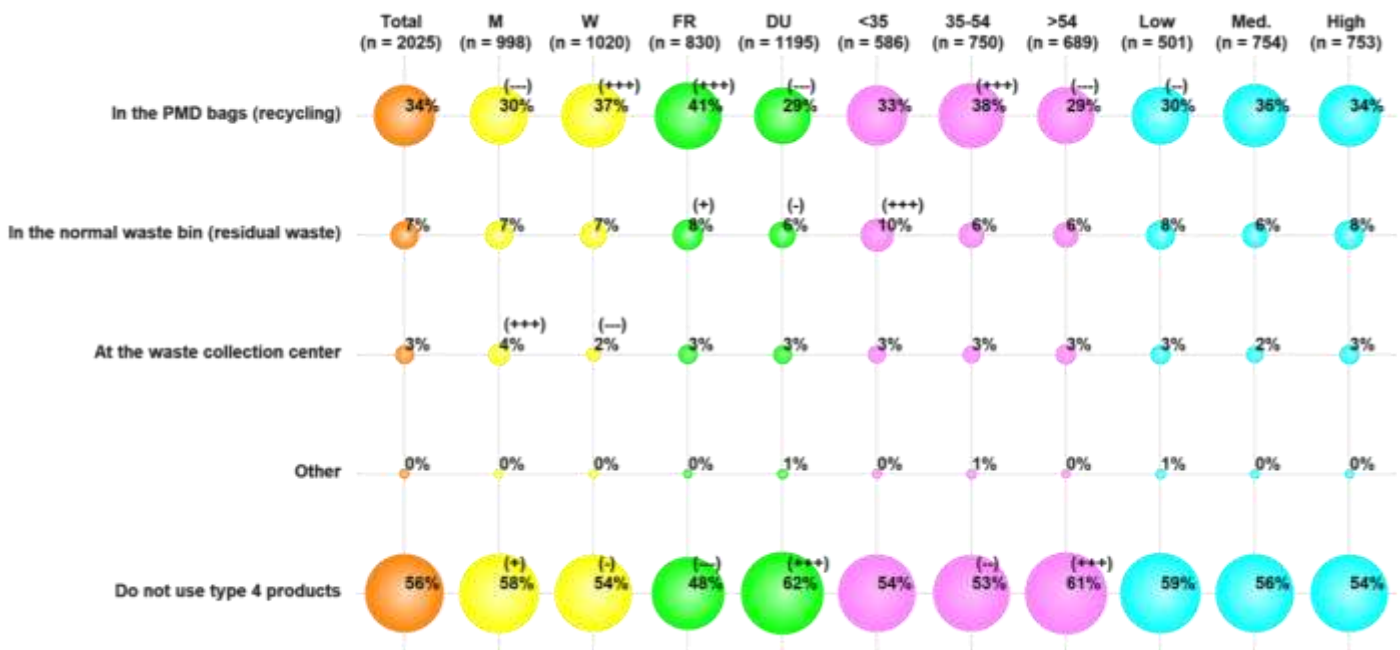
### 3.7. Destination after use

In Brussels and Flanders, empty packaging and leftover PT2 products can be classified as 'PMD' waste for recycling (Plastic or Metal packaging and Drink cartons), except the packaging with a childproof closure or hazard symbols 'acute toxic' or 'health hazard' : those must be taken to the waste disposal centre. In the Walloon region, the packaging with a 'flammable' hazard symbol must also be taken to the waste disposal centre.

#### 3.7.1. Destination of the packaging after use

**34% of the population recycle the packaging (77% of users) in PMD bags, especially women (37% vs. 30% of men), people aged between 35-54 (38%), parents with children between 4 and 12 (42%), and people with a pet (36%). 7% of respondents throw them away with conventional waste (general waste). They are more likely to be under 35 years old (9%) and city dwellers (9%). Finally, 3% take them to the waste disposal centre (more likely to be men and people with pets: 4%).**

Q: Where do you most often dispose of the packaging for this type of product?

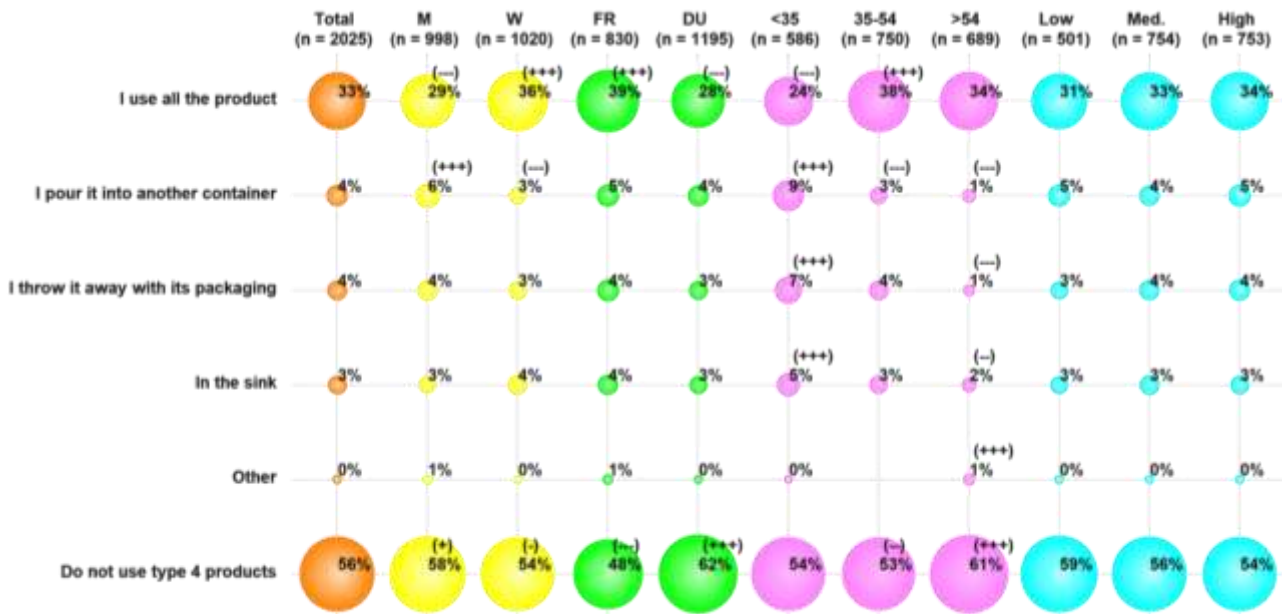




### 3.7.2. Destination of any leftover product after use

33% of respondents finish the product completely. We also observe that 4% recover any remaining product by transferring it into another container and 4% throw away the leftover product with the packaging. Finally, 3% of respondents pour leftover product down the sink (mainly people younger than 35).

*Q: Where do you most often dispose of the leftover product for this type of product?*



### 3.8. Criteria for choosing when buying a PT4 product

The most frequently indicated criterion when choosing a PT4 is price, cited by 25% of the total sample. This is followed by ease of use (14%), the efficacy of the disinfectant (13%), the fact that the brand is known (10%) or the aroma (10%).

Other criteria were also indicated (cited in order of importance for the total sample) such as:

- no toxicity or danger to animals (7%)
- the large size of the packaging (7%)
- respect for the environment (7%)
- any promotions (6%)
- the fact that it does not cause allergies (5%)
- the fact that it does not need to be diluted (5%)
- the small size of the packaging (5%)
- the presence of clear and legible instructions for use (4%)
- the fact it is also suitable for children (3%)
- the attractive packaging (1%)



The order of these choice criteria depends on the socio-demographic characteristics of the respondents. Indeed, the tables below show the different variations according to the specific profiles.

*Q: When shopping for this type of products, what criteria do you consider when buying a specific product?*

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)
The price	25%	24%	26%	30% (+++)	21% (---)	29% (+++)	26%	20% (---)
Easy to use	14%	12% (-)	15% (++)	16% (++)	13% (-)	12%	13%	16%
Higher disinfecting power than other products	13%	13%	13%	17% (+++)	10% (---)	10% (-)	16% (+++)	12%
Renowned brand	10%	10%	10%	11%	9%	12% (++)	10%	8% (-)
The fragrance	10%	8% (-)	11% (+++)	12% (+++)	8% (---)	11%	11%	7% (-)
The product is not harmful or toxic to animals	7%	7%	7%	9% (++)	6% (-)	7%	7%	7%
Large size	7%	7%	7%	8%	6%	10% (+++)	6%	5% (-)
The product is environmentally friendly	7%	7%	6%	8% (+)	6% (-)	5% (-)	6%	8% (+)
Depending on special offers	6%	5% (-)	7% (++)	6%	6%	6%	7% (+)	5%
The product is hypo-allergenic - does not cause allergies	5%	5%	6%	7% (+)	5% (-)	4% (-)	6%	5%
The product can be used as is, without being diluted with water	5%	5%	6%	5%	5%	4% (-)	5%	7% (++)
Small size	5%	5%	5%	5%	5%	7% (++)	5%	4% (-)
The instructions for use are clear and legible	4%	3%	4% (+)	4%	3%	3% (-)	4%	4%
The product is also suitable for children	3%	2% (-)	3%	3%	2%	3%	3%	2%
There are ads for this brand	1%	1% (-)	2% (+++)	1%	2%	2% (++)	1%	1%
The attractive packaging	1%	1%	1%	1%	1%	2% (+++)	1%	0% (-)
Other	1%	0% (-)	1% (+)	2% (+++)	0% (---)	1%	1% (+)	1%
Do not use type 4 products	56%	58% (+)	54% (-)	48% (---)	62% (+++)	54%	53% (-)	61% (+++)



	Total (n = 2025)	Pet (n = 1178)	Animal farm (n = 87)	No animal (n = 826)
The price	25%	26% (+)	21%	23%
Easy to use	14%	14%	16%	13%
Higher disinfecting power than other products	13%	14%	10%	12%
Renowned brand	10%	10%	12%	9%
<b>The fragrance</b>	10%	11% (+)	13%	8% (-)
The product is not harmful or toxic to animals	7%	10% (+++)	2% (-)	2% (---)
Large size	7%	8% (+++)	4%	5% (---)
The product is environmentally friendly	7%	8% (+++)	12% (++)	5% (---)
Depending on special offers	6%	6%	6%	6%
The product is hypo-allergenic - does not cause allergies	5%	6% (++)	8%	4% (-)
The product can be used as is, without being diluted with water	5%	6%	8%	4% (-)
Small size	5%	5%	2%	4%
The instructions for use are clear and legible	4%	4%	4%	3%
The product is also suitable for children	3%	3%	3%	2%
There are ads for this brand	1%	2%	1%	1%
The attractive packaging	1%	1%	2%	1%
Other	1%	1%	1%	1%
Do not use type 4 products	56%	53% (---)	52%	60% (+++)

	Total (n = 2025)	Urb. (n = 598)	Semi-urb. (n = 1154)	Rural (n = 273)	Active (n = 1043)	Unempl. (n = 91)	Inactive (n = 891)	Child 0-3 (n = 167)	Child 4-12 (n = 261)	Child >12 (n = 319)	No child (n = 1278)
The price	25%	25%	24%	26%	26%	31%	23%	30%	32% (+++)	25%	23% (---)
Easy to use	14%	14%	14%	12%	14%	16%	13%	11%	13%	15%	14%
Higher disinfecting power than other products	13%	14%	12%	16%	13%	18%	13%	17%	13%	12%	13%
Renowned brand	10%	9%	9%	12%	11%	7%	9%	13%	15% (+++)	8%	9% (-)
<b>The fragrance</b>	10%	12% (++)	8% (---)	11%	9%	9%	10%	10%	13% (+)	13% (+++)	8% (---)
The product is not harmful or toxic to animals	7%	8%	7%	6%	6% (-)	5%	9% (++)	4% (-)	9%	7%	7%
Large size	7%	8%	6% (-)	9%	7%	8%	7%	7%	11% (+++)	5%	6%
The product is environmentally friendly	7%	7%	6%	5%	6%	6%	8% (+)	1% (---)	5%	6%	8% (++)
Depending on special offers	6%	5%	6%	7%	5% (-)	0%	7% (+++)	5%	7%	6%	6%
The product is hypo-allergenic - does not cause allergies	5%	5%	5%	6%	5%	6%	6%	4%	7%	5%	5%
The product can be used as is, without being diluted with water	5%	5%	5%	4%	4% (-)	4%	7% (+++)	3%	4%	8% (++)	5%
Small size	5%	5%	6%	2% (-)	5%	6%	4%	7%	4%	5%	5%
The instructions for use are clear and legible	4%	3%	4%	4%	3%	4%	4%	2%	3%	2%	4% (+)
The product is also suitable for children	3%	3%	2%	3%	3%	1%	2%	5% (++)	5% (+++)	3%	2% (---)
There are ads for this brand	1%	2%	1%	1%	2%	1%	1%	2%	1%	1%	1%
The attractive packaging	1%	1%	1%	1%	1%	1%	1%	0%	3% (++)	1%	1%
Other	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Do not use type 4 products	56%	54%	58% (+)	55%	54%	52%	58% (+)	49% (-)	47% (---)	53%	60% (+++)

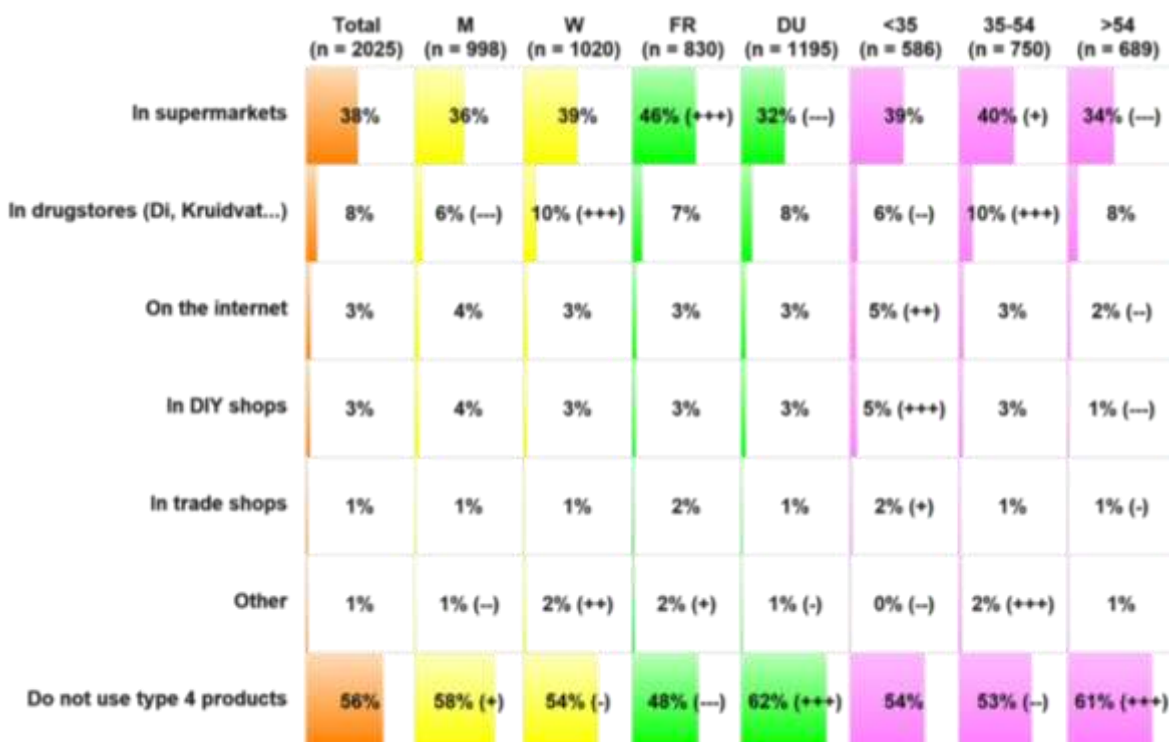


### 3.9. The places of purchase for PT4

The supermarkets are clearly the main place where Belgians buy PT4. Indeed, 38% of respondents buy this type of product and, if we consider only the users, this represents more than 86%.

Drugstores are in 2<sup>nd</sup> place (8% of the total sample) and are more likely to be used by women (10%), people aged 35-54 (10%) and people with pets (9%). These are followed by DIY stores (3%, more frequently people younger than 35: 5%) and finally stores for professionals (1%).

Q: Where do you buy these types of products?



### 3.10. Storing PT4 products

35% of respondents store their PT4 cleaning products in the same place, while 9% store them in several different places. The rooms in which the products are stored are (regardless of whether they are all in one place or not):

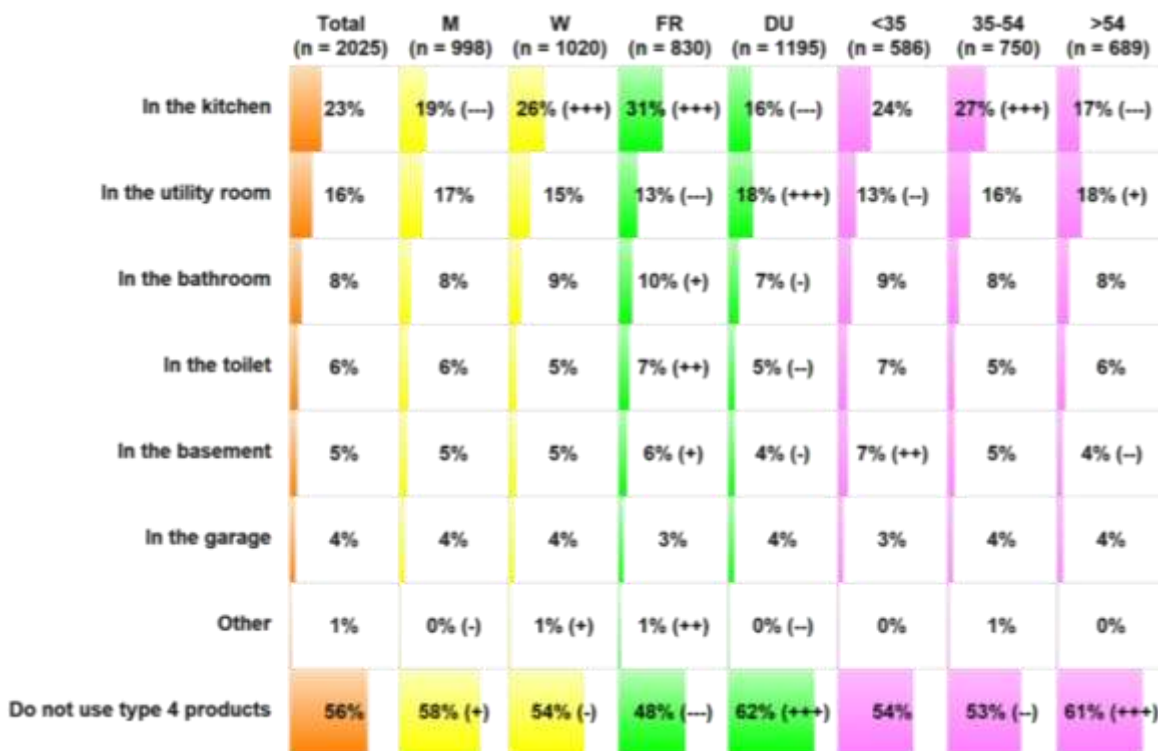
- the kitchen (23%)
- the storage/utility room (16%)
- the bathroom (8%)
- the toilets (6%)
- in the basement or laundry room (5%)
- in the garage (4%).

The same hierarchy can be seen as for PT2.



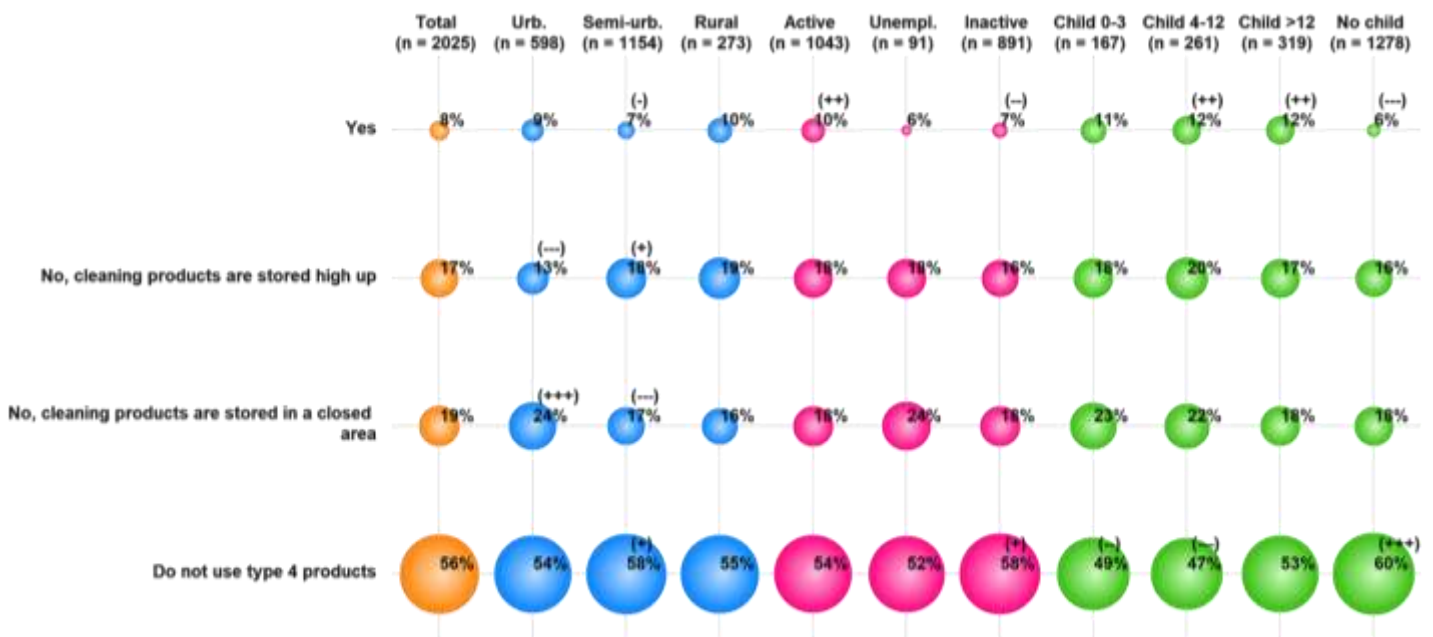


Q: In which room(s) do you store these products?



The majority of respondents (36%) are careful to store these products in a place that is inaccessible to children. Indeed, around half of them store them out of reach (17%) and the other half in a locked area (19%). On the other hand, for 8% of the respondents, the products are easily accessible to children; this is more often the case for French-speakers (11%), younger people (under 35: 11%), people in employment (10%) but also parents with children at home (4 to 12 years old: 12% and over 12: 12%)

Q: Are your cleaning products accessible to young children?







### 3.11. Reading and applying the information on the label

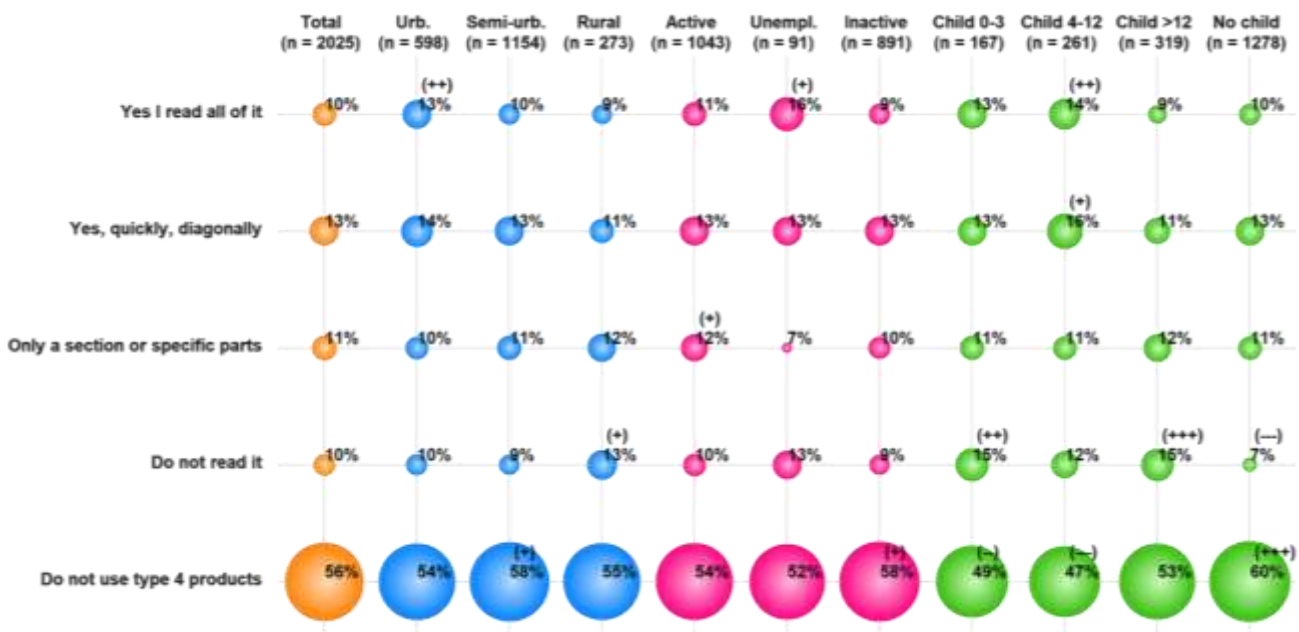
#### 3.11.1. Extent to which the information on the packaging is read before purchase

As regards how much information on the packaging of PT4 is read before the purchase,

- 10% of Belgians read the entire label,
- 13% quickly skim the label,
- 11% only read a part or specific parts and
- 10% do not read it at all.

These results are fairly similar to those for PT1 and PT2. If we consider only the users ("consumers") of PT4, we find the following percentages: 23% of respondents read the entire label, 30% quickly skim it, 25% only read a part or specific parts, and 23% do not read it at all.

*Q: Before purchasing, do you read the label on the product packaging?*



We observe very few significant differences according to the socio-demographic profile of all respondents.

#### 3.11.2. Information scanned in the case of partial reading

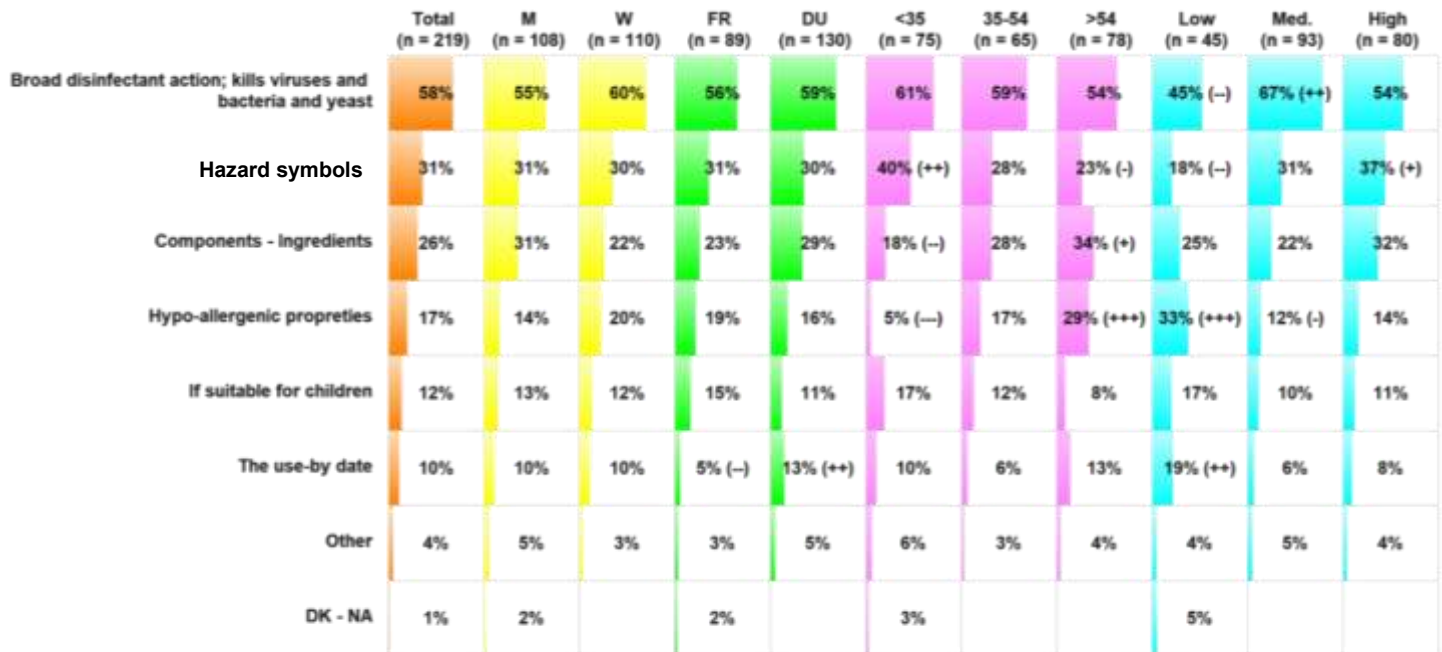
In the case where the respondent partially reads the label (11% of the total sample, i.e. 279 respondents), the information scanned is very similar to that for PT2, namely:

- **the broad disinfecting action** (kills viruses, bacteria, yeast, etc.) (58% of respondents)



- **the hazard symbols** (31%, more likely among young people <35 years old: 40%)
- **the ingredients** (26%, no difference according to the profile)
- **the hypoallergenic properties** (17%)
- **the fact it is suitable for children** (12%)
- **the use-by date** (10%)

Q: What part(s) do you read?

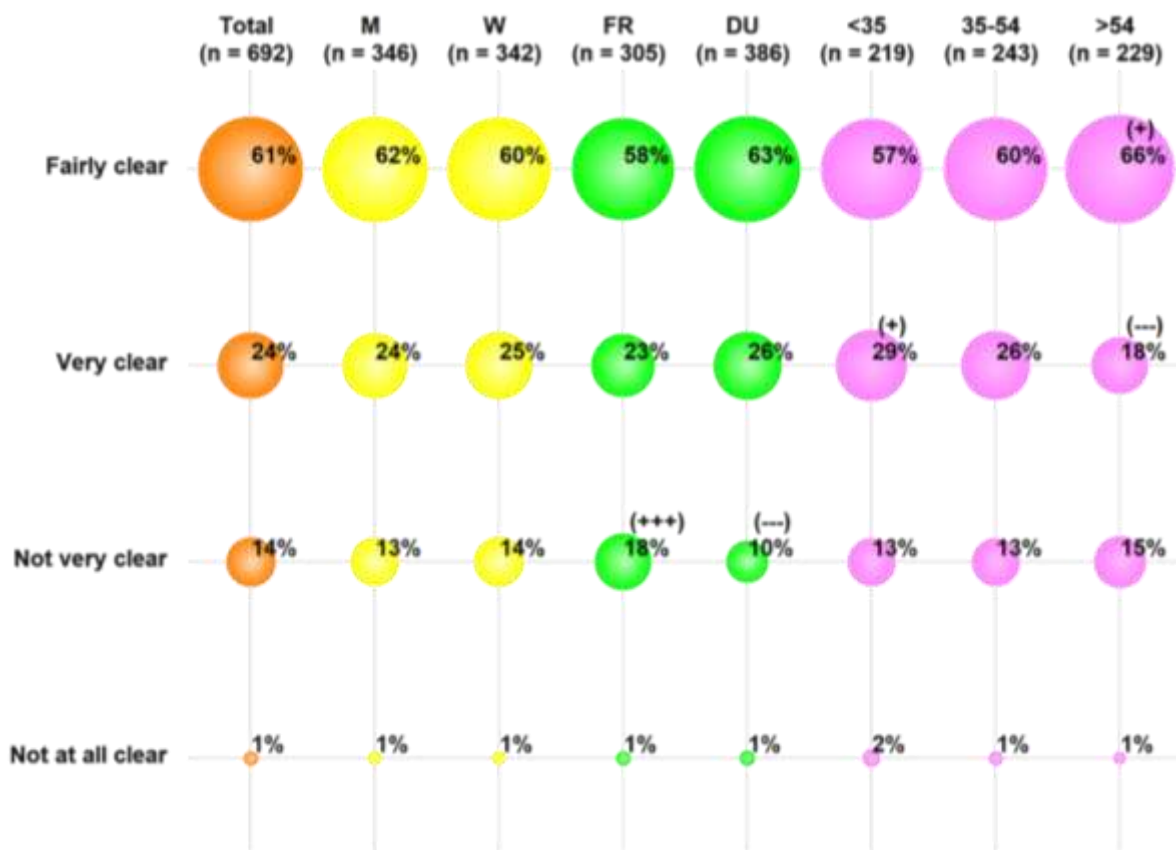




### 3.11.3. Evaluation of the clarity of the information provided

Among the persons who use PT4 products and read through the label (n=692), 15% find that the available information is unclear: 14% consider it not very clear and 1% not at all clear (1%). When comparing the different profiles, this is more prevalent among French-speaking respondents (19% of them consider that the information on the label is not clear, compared to 11% of Dutch-speakers). This is the same for PT2 products.

*Q: In your opinion, is the information on the packaging very clear, somewhat clear, not very clear or not at all clear?*





32% of respondents who do not read the entire label (261 people) cite difficulties in reading it due to the small size of the font used. Furthermore, 17% highlight a lack of clarity or a too scientific vocabulary (11%).

Q: Why do you not read the entire information label?

	Total (n = 261)	M (n = 121)	W (n = 138)	FR (n = 104)	DU (n = 157)	<35 (n = 74)	35-54 (n = 96)	>54 (n = 91)	Low (n = 51)	Med. (n = 101)	High (n = 109)
Because I know how to use these products and it works very well	33%	33%	32%	30%	34%	24% (-)	38%	34%	39%	31%	32%
I cannot read it : the writing is too small	32%	33%	33%	38%	29%	25%	37%	34%	31%	36%	30%
Because I know how to use these products	30%	27%	32%	29%	31%	34%	23% (-)	35%	32%	28%	31%
Because it is often unclear and difficult to understand	17%	17%	17%	18%	16%	23% (+)	14%	15%	7% (-)	23% (++)	16%
Because the terms used are too scientific	11%	10%	11%	15% (+)	8% (-)	15%	10%	9%	6%	16% (++)	8%
Because I am not interested	10%	9%	11%	8%	12%	15% (+)	11%	6% (-)	7%	12%	10%
I cannot read it : the contrast is too low	8%	7%	9%	9%	7%	8%	8%	7%	7%	7%	9%
Because I do not have the reflex	5%	5%	4%	5%	4%	8%	5%	3%	3%	4%	7%
Because the information is not useful	4%	3%	4%	2%	4%	8% (+++)	1%	2%		5%	4%
Other	2%	2%	3%	2%	2%	2%	1%	4%		4%	2%

In addition, 13% of the respondents who do not read the labels (199 individuals) are unable to read them because of the font used (too small), 5% find that the content is not very clear or that the vocabulary is too scientific (5%).

Q: Why do you not read the information label?

	Total (n = 199)	M (n = 74)	W (n = 125)	FR (n = 127)	DU (n = 72)	<35 (n = 50)	35-54 (n = 111)	>54 (n = 38)	Low (n = 47)	Med. (n = 65)	High (n = 85)
Because I do not have the reflex	26%	36% (++)	20% (-)	28%	23%	27%	28%	19%	21%	24%	30%
Because I know how to use these products	25%	18% (-)	29% (+)	26%	24%	20%	26%	29%	19%	28%	27%
Because I am not interested	22%	23%	21%	21%	24%	37% (+++)	21%	3% (-)	10% (-)	28%	24%
Because I know how to use cleaning products and it works very well	19%	19%	20%	15% (-)	26% (+)	19%	18%	24%	12%	22%	21%
I cannot read it : the writing is too small	13%	14%	13%	15%	9%	5% (-)	13%	23% (++)	29% (+++)	8%	8% (-)
Because the information is not useful	5%	6%	5%	7% (+)	2% (-)	9%	3%	6%	10%	4%	4%
Because it is often unclear and difficult to understand	5%	6%	5%	6%	4%	9%	5%	2%	13% (+++)	6%	0%
Because the terms used are too scientific	5%	8%	3%	7%	3%	14% (+++)	2% (-)	2%	7%	11% (++)	
I cannot read it : the contrast is too low	1%		2%	2%			2%	2%		1%	2%
Other	5%	4%	6%	8%		1%	5%	9%	7%	3%	6%
DK - NA	0%	1%		1%				2%			1%



### 3.12. Awareness of the correct use of PT4 products and compliance with instructions

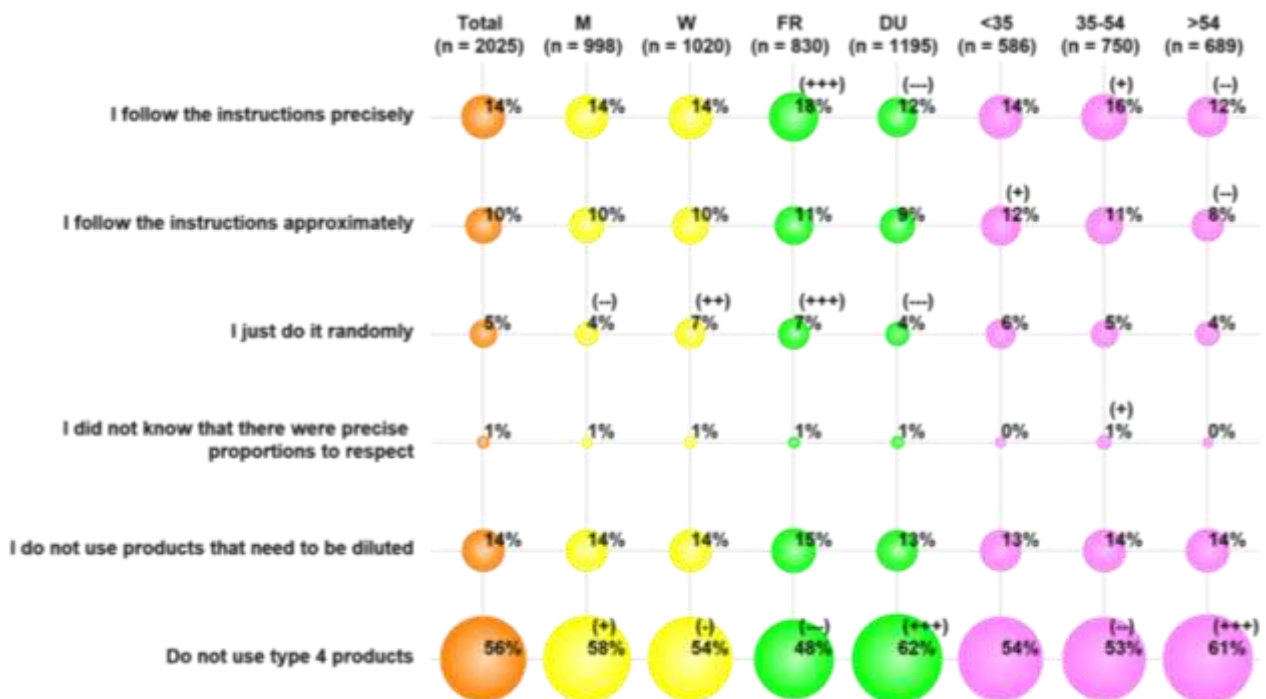
Using protection is not necessary when PT4 is used by the general public. Indeed, the authorisation holder must prove that their product can be used safely by the general public without the need for additional protection if they want to obtain the marketing authorisation. If personal protection equipment is necessary to ensure that the product is safe to use, it will not be authorised for the general public.

#### 3.12.1. As regards dilution

As regards the dilution of type 4 biocidal products, 14% of the population use products that do not need to be diluted with water. If we restrict ourselves to PT4 users, this amounts to around 32%.

14% of Belgians strictly comply with the dilution instructions, 10% more or less comply with them (e.g. the amount of water is not measured precisely) and 5% say they dilute products randomly (depending on the appearance or smell of the final diluted product). 1% of the population are not aware that there are dilution instructions.

Q: When you have to dilute a product with water, to what extent do you follow the instructions?

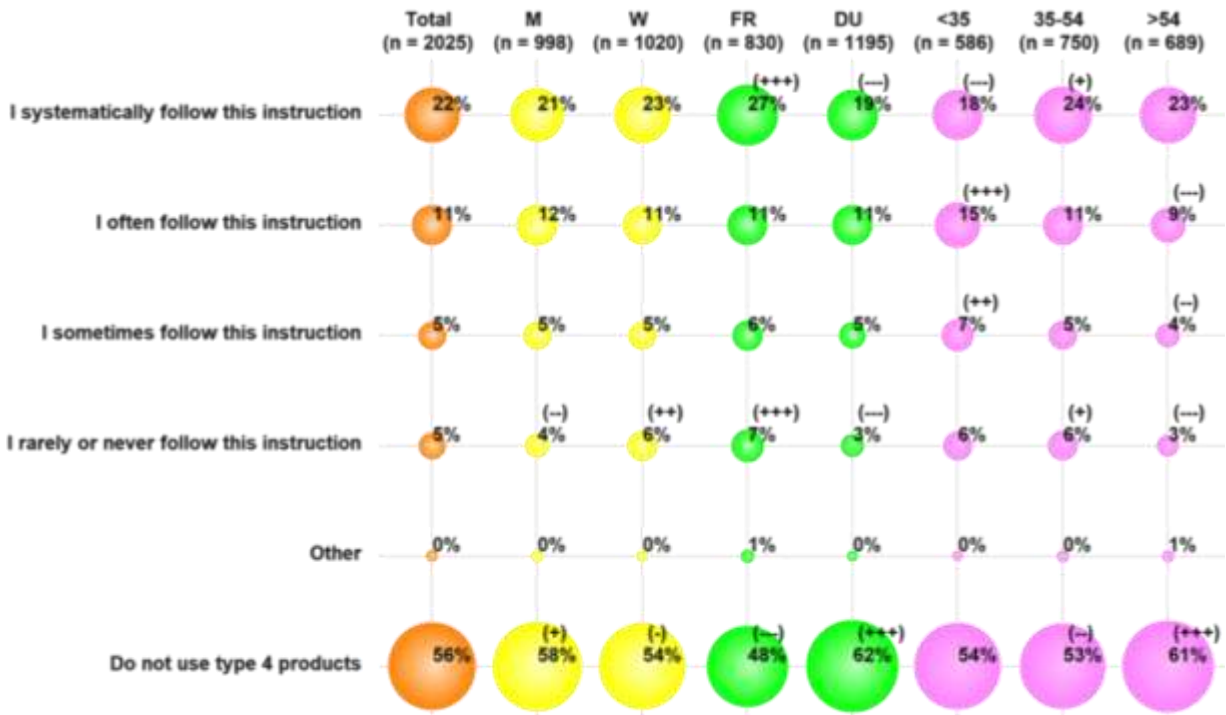




### 3.12.2. As regards the rinsing of the surface

Only half of the PT4 users (22% of the total sample) systematically comply with the instruction to rinse the surface that comes into contact with food after disinfection. 22% of the respondents, i.e. 50% of users, do not systematically comply with the rinsing instructions. 5% of the respondents indicate they never rinse.

Q: To what extent do you follow the instruction to rinse surfaces in contact with food with water after using a disinfectant?







## 4. Dangerousness of biocides (PT1, PT2 and PT4) : negative experiences

16% of the population (320 respondents out of the 2,025 surveyed) have previously experienced problems after using a biocidal products (PT1, PT2, PT4). If we look in more detail at the socio-demographic characteristics of the respondents who have had a problem, we observe the following significant differences: they are more likely to be women (18%), French-speakers (19%), people under the age of 35 (23%), people living in urban areas (18%), people in employment (17%), parents of children aged 0 to 3 (25%) and 4 to 12 (20%), as well as people with a pet at home (18%).

Among the various problems encountered, skin irritations were the most common : this was the case for 12% of the respondents (out of the 16% having had a problem, i.e. 75% of the reported problems). Less frequently, 3% of respondents had burns, 3% had allergies and 1% had respiratory problems.

Q: What kind of problems were encountered?

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)
Skin irritations	12%	9% (---)	14% (+++)	15% (+++)	9% (---)	16% (+++)	12%	7% (---)
Burns	3%	4% (++)	2% (-)	5% (+++)	2% (---)	5% (+++)	4%	1% (---)
Allergies	3%	1% (---)	4% (+++)	4% (++)	2% (-)	3%	3%	2% (-)
Breathing difficulties	1%	1%	1%	1%	1%	2%	1%	1% (-)
Other	1%	1% (---)	2% (+++)	2% (++)	1% (-)	1%	2%	1%
Did not encounter any problems	84%	87% (+++)	82% (---)	81% (---)	87% (+++)	77% (---)	83%	92% (+++)

If a problem was encountered related to the use of a biocidal disinfectant, we observe that in more than 56% of cases, it was not notified to a health professional (9% of the total sample and 12% of the respondents with a higher diploma). If it was



notified, the most frequently consulted professionals or organisations were the following (the percentages below refer to the total sample) :

- the (general) physician: 4%
- the pharmacist: 1%
- the Poison Centre: 1%
- a hospital: < 1%
- a work colleague: < 1%

Q: Did you report the problem/consult a professional?

	Total (n = 2025)	M (n = 998)	W (n = 1020)	FR (n = 830)	DU (n = 1195)	<35 (n = 586)	35-54 (n = 750)	>54 (n = 689)	Low (n = 501)	Med. (n = 754)	High (n = 753)
No, I did not report it	9%	8% (-)	11% (++)	12% (+++)	8% (---)	12% (++)	11% (++)	5% (---)	7% (-)	9%	12% (+++)
Yes, to a/my doctor	4%	3% (-)	5% (++)	5% (+)	4% (-)	7% (+++)	5%	2% (---)	6% (++)	4%	4%
Yes, to a/my pharmacist	1%	1% (---)	2% (+++)	1%	1%	3% (+++)	1% (-)	1% (-)	1%	1%	1%
Yes, to the poison control center	1%	1%	0%	1%	0%	2% (+++)	0%	0%	1% (++)	0%	0%
Yes, to the hospital	0%	0%	0%	0%	0%	0%	0%	0%	1% (++)		0%
Yes, to my job - colleague	0%		0%	0%	0%		0%				0%
Did not encounter any problems	84%	87% (+++)	82% (---)	81% (---)	87% (+++)	77% (---)	83%	92% (+++)	84%	86%	83%

Respondents who experienced a problem when using biocidal disinfectants were asked to suggest what improvements could be made to avoid health-related problems. The following suggestions were readily put forward (in order of frequency):

- Reduce or even stop the use of this type of product (n=48)
- Pay attention to the ingredients (aggressive elements, allergens, etc.), read the instructions more (n=31)
- Use protection (gloves, etc.) (n=29)
- Apply moisturiser (n=28)
- Rinse hands after use (n=11)
- Provide better information on the packaging (instructions for use, protection, etc.) (n=6).



## 5. Influence of the COVID-19 crisis on the use of PT1, PT2 and PT4

The Covid-19 pandemic clearly had an impact on the use of biocidal products, specifically PT1 products. This is confirmed by the following survey results :

- ✓ respondents use biocidal disinfectants more often since the Covid-19 pandemic. (affirmative for x % of the total sample)
  - 23% for PT4
  - 37% for PT2
  - 53% for PT1
- ✓ Respondents read the instructions for use more carefully since the pandemic
  - 19% for PT4
  - 26% for PT1
  - 27% for PT2
- ✓ Respondents comply more often with the instructions for use since the pandemic
  - 28% for PT4
  - 42% for PT2
  - 45% for PT1

Finally, more than 1 person in 5 checked that the product was effective against Covid-19:

- 21% for PT4
- 31% for PT2
- 35% for PT1

The table below summarises the information on the impact of the pandemic on the use of types 1, 2 and 4 biocidal products.

		PT 1	PT 2	PT 4
✓ Have not used or purchased any disinfectant biocidal products in the last 12 months		36%	33%	56%
✓ Do you use more disinfectants since Covid-19?	Much more often	31%	14%	9%
	More often	22%	23%	14%
	As much as before	8%	27%	18%
	Less often than before	3%	4%	3%
✓ Do you read user instructions more closely since the Covid-19 pandemic?	Yes	26%	27%	19%
	No	38%	40%	25%
✓ Do you follow the instructions for use more since the Covid-19 pandemic?	Yes	45%	42%	28%
	No	20%	25%	16%
✓ Do you check that the product is effective against Covid-19?	Yes	35%	31%	21%
	No	29%	37%	23%



## IV. SUMMARY

### 1. Use of biocidal products among the Belgian population in the last 12 months

	PT 1	PT 2	PT 4
✓ Have used disinfectant biocidal products in the last 12 months	66%	67%	44%
✓ Have used disinfectant biocidal products in the last 12 months <u>only at the entrance of shops</u>	17%		
✓ Have not used or purchased any disinfectant biocidal products in the last 12 months	36%*	33%	56%

\* respondents using biocidal disinfectants only in a shop are counted in this category (16% do not use PT1, 17% only used them at the entrance to the shop and 2% do not purchase biocidal products).

### 2. Use of biocidal disinfectants applied to the skin or scalp (type 1)

a. 84% of the Belgian population have used type 1 biocidal products in the last 12 months.

i. However, 17% indicate that they used only products made available in shops (during the Covid-19 pandemic). They are more likely to be 55 years of age or older (21%) and to have an education level less than CESS (22%)

ii. 66% of the Belgian population have used type 1 biocidal products in the last 12 months. The socio-demographic analysis highlights certain differences according to the profiles. Indeed, the use of PT1 is more frequent among French-speakers (70% vs. 64% for Dutch-speakers), people under 55 years old (74% among 18-34 year olds and 71% among 35-54 year olds), and people with a higher education (74%).

b. The main reason for using this type of product is clearly linked to the Covid-19 pandemic: more than half of the Belgian population (58%) uses it as a means of protection and this is more often the case for respondents with a higher education (67%), young people (64%) or middle-aged people (61%), French-speakers (61%) and women (60% vs 56%).

13% are obliged to use this type of product in a professional context (work obligation), 11% use it out of habit, and always have done. We also observe more awareness among the population when in contact with more vulnerable people: 10% of respondents use PT1 when someone close to them is ill, 8% in the presence of people with lower immunity and 6% in the presence of young children. 4% use them



following the recommendations of a health professional, and 4% in the presence of an animal.

- c. 47% of Belgians use type 1 biocidal products at least once a day. They are mainly women, French-speakers, 35-54 years old and people with a higher level of education.

13% use it a few times a week and 7% use it less often.

- d. For PT1, the most frequently purchased form is hydroalcoholic gel: 55%, followed by liquids (18%), sprays/vaporizers (14%) and finally wipes (14%).

3% of the population use PT1, but never buy them (these are more likely to be men and Dutch-speakers).

- e. 36% of Belgians believe that PT1 have cleaning properties, especially people younger than 35 and people with a higher level of education.

- f. 4% of Belgians have already mixed their type 01 biocidal product with another product, most often with essential oil or soap.

- g. As for compliance with the use-by date:

- 18% of respondents do not read it (this is more the case among those under 35, French-speakers and people with a higher education)
- 12% read it, but do not comply with it
- 34% say they comply with it (especially women and people aged 35-54)
- Slightly more than half of the respondents are not aware of the indications regarding the use-by date or the necessary contact time for the product to be effective.

- h. As for the treatment of waste,

- Almost half of Belgians dispose of the packaging in PMD bags for recycling (47%), especially women under 35 with a higher level of education. French-speakers under the age of 35 also dispose of them in general waste.
- 46% of Belgians use the product up, primarily French-speaking women between the age of 35 and 54 and with a higher level of education. 6% transfer any leftover product into another container (mostly men, people younger than 35 and people with a level of education lower than CESS). Finally, 7% throw away any leftover product with the packaging.

- i. The three main criteria for Belgians when buying PT1 are price (34%), small package size (28%) and superior disinfecting action (19%).



- j. The two main places of purchase are supermarkets (28%) and pharmacies or parapharmacies (20%).
- k. Regarding the reading of the label: 13% of Belgians read the whole label, 20% quickly skim it, 13% read only a part or specific parts and 17% do not read it at all. Furthermore,
  - 8% of Belgians find that the information on the packaging is not very clear, or not at all clear.
  - If they only partially read the label, the respondents focus on the broad disinfecting action (55%).
  - When they find it unclear, the main reasons given are that the text is too small (55%), it is difficult to understand (36%) and the terms used are considered "too scientific" (32%).
  - Respondents who do not entirely read the instructions for use justify this by the fact that the text is too small (36%) and that they already know how to use the product (26%).
  - According to respondents who do not read the leaflet at all, the reasons given are that they are not interested (28%), that the text is too small (20%) and that they do not have the habit of reading the leaflet (23%).

### **3. Use of products used to disinfect surfaces that are not in contact with food or animal feedstuffs (type 2)**

- a. Slightly more than two out of three Belgians use type 2 biocidal products (67%), primarily in the form of multi-purpose disinfectants.
- b. Respondents who do not use these products give as main reasons that cleaning products are more than adequate (18%) or that they do not see the added value (7%).
- c. Respondents who use PT2 give the reason that the surface is cleaner when disinfected at the same time (31%), because it is a habit (28%) and as a barrier against Covid-19 (27%). The presence of animals also prompts respondents to use this type of product.
- d. Regarding the frequency of use, more than one out of four Belgians surveyed (28%) uses type 2 biocidal products several times a week and 14% even use them daily.
- e. The most common preparation for PT2 is liquid in containers or bottles (49%), then sprays-vaporisers (30%).
- f. 23% of Belgians do not read the use-by date and 13% have already used the product beyond the use-by date, especially French-speaking men under 35.





- g. As regards waste,
- Around half of Belgians dispose of the packaging in PMD bags (51%), especially French-speaking women between 35 and 54 years old;
  - slightly less than half of Belgians use the product up (49%), especially women, French speakers and people aged 35-54. 6% transfer leftover product to another container (more men and young people) and 6% throw it away with the packaging.
- h. The three main criteria for purchasing a PT2 are: price (36%), ease of use (22%) and superior disinfection action (20%).
- i. Type 2 products are mainly purchased in supermarkets (56%), especially among French-speakers aged 35 to 54.
- j. 53% of Belgians store all cleaning products in the same place. The rooms most often used to store products are the kitchen (29%) and the storage room (25%). 13% of Belgians admit that PT2 products in their house are accessible to young children.
- k. As for reading the information on the label, 15% of Belgians read the whole label, 21% quickly skim it, 15% read only a part or specific parts and 16% do not read it at all. Furthermore,
- 14% of PT2 users find the information not very clear or not at all clear, mainly because the text is too small (50%), it is difficult to understand (35%) and the terms used are too scientific (28%).
  - When they read only part of the label, users focus on the broad disinfecting action (60%).
  - Respondents who do not read the instructions for use in full give the reason that they already know how to use this type of product (31%) and/or the fact that the text is too small (28%).
- l. Regarding the compliance with the instructions for use,
- Around half of the respondents who use type 2 biocidal products that must be diluted, do not strictly follow the instructions for diluting the product.
  - The respondents (58%) do not systematically use protection when using PT2 (of which 16% never use protection). Only 9% use protection systematically. Among the 16% who never use protection, these are more often French-speakers, women and people aged 35-54. The respondents who use protection do so to protect their hands (85%) and in case of allergy (10%). Moreover, 27% of users emphasise the hazards of using this type of product.



#### 4. Use of products for disinfection of surfaces that are in contact with food or animal feedstuffs (type 04)

- a. 56% of Belgians do not use type 4 products. These are more likely to be Dutch-speakers and people aged 55 and over. When the general public buys this type of product, it is mostly multi-purpose disinfectants (33%). Only 19% of respondents use specific disinfectants for the kitchen (19%).
- b. The main reason given for not using PT4 products is that the available cleaning products are sufficient (22%). Moreover, these products are expensive (7%), have little added value (7%) and are toxic (for health: 6% and the environment: 5%).
- c. On the other hand, using disinfectant in addition to a cleaning product enhances the sense of cleanliness for 19% of the population. Furthermore, 18% of respondents use these products out of habit. The pandemic also plays a significant role (17%). The presence of animals is also an important factor.
- d. In terms of the frequency of use, 18% of respondents use type 4 biocidal products several times a week and 12% use them daily.
- e. This type of product is generally purchased in liquid form, in bottles (30%) or in sprays/vaporisers (23%, packaging that is particularly popular among young and middle-aged people).
- f. 20% of the population is aware of and complies with the use-by date (above all 35-54 year olds and women). 10% say they do not comply with it and 14% are not aware they exist (more likely to be French-speakers, with higher education).
- g. With regard to managing waste from PT4,
  - 34% of the population put the packaging in PMD bags for recycling (77% of users).
  - 33% of respondents use the product entirely. To a much lesser extent, 4% of users recover leftover product by transferring it into another container, and 4% throw away leftover product with the packaging. Finally, 3% pour leftover product down the sink (mainly people younger than 35).
- h. The main purchase criteria are price (25%), ease of use (14%), superior efficacy (of disinfection: 13%), brand awareness (10%) and aroma (10%).
- i. These products are typically purchased in supermarkets.
- j. The products are most often stored in the same place within the home (35% of the total sample) although 9% of the Belgians store them in multiple places. The products are mostly stored in the kitchen (25%) or



in a storage room (16%). In 8% of the households, type 4 biocides are accessible to young children.

- k. Just over 25% of PT4 users do not read the information on the packaging. These are more likely to be French-speakers.
- The broad disinfecting action is important information read by more than half of the respondents who read through the label. This is followed by reading the hazard symbols (31%) and the ingredients (26%).
  - 15% of respondents who read the labels do not find the information on the packaging clear.
  - 32% of respondents who do not read the entire label cite difficulties in reading it due to the size of the font used. Furthermore, 17% highlight a lack of clarity or a "too scientific" vocabulary (11%).
  - 13% of the respondents who do not read the labels are unable to read them because of the font used (too small), and finally, 5% find that the content is not very clear or that the vocabulary is "too scientific" (5%).
- l. As for the compliance with the instructions for use,
- Half of the respondents using PT4 do not strictly follow the dilution instructions.
  - Only half of the users systematically follow the instructions for rinsing the surfaces after use.



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## 5. **Negative experiences following the use of biocidal products**

- a. 16% of respondents have experienced problems when using biocidal products (type 1, 2 or 4).
  - This is more likely to be the case for women, French-speakers and people younger than 35.
  - In the vast majority of cases, these are dermatological problems (skin irritation) (75%), and to a far lesser extent, burning sensations (20%) and allergies (20%) were reported.
  - Most often, there was no need for a consultation with a health professional and the problems caused by the biocidal product use have not been reported to a health professional or organisation.



## 6. Influence of the Covid-19 crisis on the use of disinfectants

The Covid-19 crisis has clearly had an impact on the use of biocidal products among the Belgian population. The frequency of use increased among 53% of Belgians for PT1, 37% for PT2 and 23% for PT4

In terms of behaviour since the pandemic, the respondents indicate:

- that they read the instructions for use more often : 26% of Belgians say they read the instructions for use more often for PT1, 27% for PT2 and 19% for PT4
- that they comply with the instructions for use more often : 45% for PT1, 42% for PT2 and 28% for PT4
- that they check the efficacy of the product against Covid-19 : 35% for PT1, 31% for PT2 and 21% for PT4.

		PT 1	PT 2	PT 4
✓ Have not used or purchased any disinfectant biocidal products in the last 12 months		36%	33%	56%
✓ Do you use more disinfectants since Covid-19?	Much more often	31%	14%	9%
	More often	22%	23%	14%
	As much as before	8%	27%	18%
	Less often than before	3%	4%	3%
✓ Do you read user instructions more closely since the Covid-19 pandemic?	Yes	26%	27%	19%
	No	38%	40%	25%
✓ Do you follow the instructions for use more since the Covid-19 pandemic?	Yes	45%	42%	28%
	No	20%	25%	16%
✓ Do you check that the product is effective against Covid-19?	Yes	35%	31%	21%
	No	29%	37%	23%