



Santé  
Canada Health  
Canada

# Canadians' Perspectives on Safety Information Disclosure for Consumer Chemical Products

## Findings Report

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A handwritten signature in black ink, appearing to read "Brad Griffin". The signature is stylized and includes a colon at the end.

Brad Griffin, President  
Ipsos Public Affairs  
Signed on February 8, 2024

This public opinion research report presents the results of an online survey conducted by Ipsos Public Affairs on behalf of Health Canada. The research study was conducted with n=3,006 Canadians in December 2023.

Cette publication est aussi disponible en français sous le titre: Perspective des Canadiens sur la divulgation des renseignements en matière de sécurité des produits chimiques de consommation.

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The logo for the Government of Canada, featuring the word "Canada" in a serif font with a small red maple leaf icon above the letter 'a'.

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# Glossary of Symbols and Labels

Source: *Consumer Chemicals and Containers Regulations, 2001* (CCCR, 2001) / Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

A. CCCR, 2001 explosive symbol:



B. CCCR, 2001 corrosive symbol:



C. CCCR, 2001 poison symbol:



D. GHS gas cylinder symbol:



E. GHS corrosion symbol:



F. GHS skull and crossbones symbol:





G. GHS exclamation mark symbol:



H. GHS health hazard symbol:



I. GHS flame symbol:



J. GHS label:

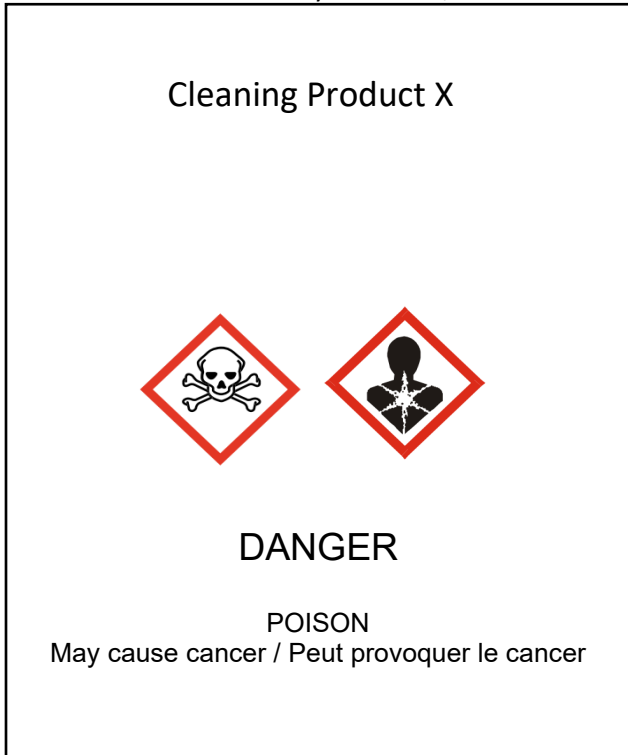
Cleaning Product X



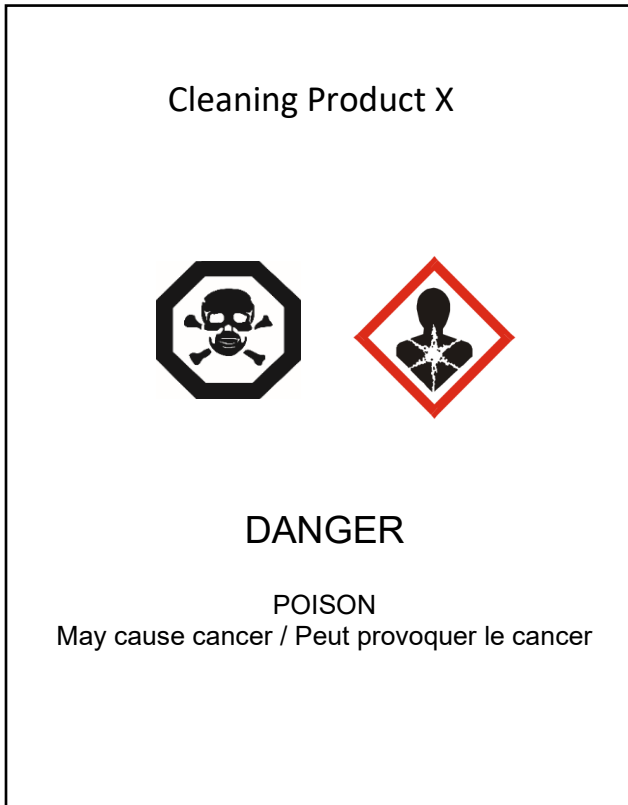
Danger

Fatal if swallowed / Mortel en cas d'ingestion  
May cause cancer / Peut provoquer le cancer


K. Alternate variation of hybrid CCCR, 2001 and GHS label:



L. Hybrid CCCR, 2001 and GHS label (black skull):



M. Poisonous Household Chemical Label Example:

Main Display Panel	Any part of the display surface
<p data-bbox="164 275 480 443">Example Only</p>  <p data-bbox="228 730 396 787"><b>DANGER POISON</b></p>	<p data-bbox="597 285 1089 388"><b>CONTENTS HARMFUL:</b> Do not swallow. Keep out of reach of children. Wear <i>[insert description of the specific safety equipment relevant to the hazard, e.g., a mask.]</i> To Open: Push down, turn counterclockwise. To Close: Place cap over nozzle, turn clockwise.</p> <p data-bbox="597 390 797 409"><b>FIRST AID TREATMENT</b></p> <p data-bbox="597 411 1084 472">Contains <i>[name of hazardous ingredients in descending order of proportion]</i>. If swallowed, call a Poison Control Centre or doctor immediately. Do not induce vomiting.</p> <p data-bbox="597 520 1089 623"><b>CONTENU NOCIF :</b> Ne pas avaler. Tenir hors de la portée des enfants. Porter <i>[insérer une description de l'équipement de sécurité approprié; ex. : un masque]</i>. Pour Ouvrir : Enfoncez et tournez, dans le sens anti-horaire. Pour Fermer : Placez le bouchon sur le bec et tournez, dans le sens horaire.</p> <p data-bbox="597 625 748 644"><b>PREMIERS SOINS</b></p> <p data-bbox="597 646 1084 724">Contient <i>[nom des ingrédients dangereux dans l'ordre décroissant de leurs proportions]</i>. En cas d'ingestion, appeler immédiatement un centre antipoison ou un médecin. Ne pas provoquer le vomissement.</p>

# Executive Summary

## Introduction and Background

A wide variety of consumer chemical products such as household cleaning products, adhesives, and lubricants are available to the Canadian public. The *Consumer Chemicals and Containers Regulations, 2001* (CCCR, 2001 or Regulations) under the *Canada Consumer Product Safety Act* (CCPSA) help to protect people in Canada from certain acute human health and physical hazards associated with consumer chemical products, through prohibitions and restrictions on dangerous consumer chemical products, safety information disclosure in the form of labelling requirements, and container requirements like child-resistant containers. The labelling requirements of the CCCR, 2001 include hazard symbols, signal words (e.g., “DANGER”) and hazard statements (e.g., “POISON”) that help alert users to hazards. In addition, there are labelling requirements for safe use and first aid instructions, and a list of hazardous ingredients contained in the product. The acute human health and physical hazards that are currently addressed by the CCCR, 2001 are:

- acute toxicity (lethal or serious but non-lethal effects);
- corrosivity (chemical burns and eye damage);
- flammability (chemicals that catch fire);
- pressurized containers (containers that may explode if heated or punctured); and,
- quick skin-bonding adhesives (adhesives that bond skin instantly or nearly instantly).

Many substances contained in consumer chemical products are linked to human health hazards of concern (HHHOCs), including those that may cause an adverse health effect resulting from long term or intermediate exposure. However, the CCCR, 2001 do not include requirements that specifically help mitigate the risks for the following HHHOCs:

- carcinogenicity (induction of cancer);
- germ cell mutagenicity (heritable gene mutations);
- reproductive toxicity (adverse effects on sexual function, fertility, or developmental toxicity in offspring);
- specific target organ toxicity (adverse effects on target organs after single or repeated exposure); and
- respiratory or skin sensitization (allergic reactions or hypersensitivity).

To help protect people in Canada from HHHOCs found in consumer chemical products, Health Canada is developing a regulatory proposal for new health and safety requirements under the CCPSA. This objective may be achieved by establishing hazard classification criteria, labelling requirements, and additional protections such as prohibitions, restrictions, or child-resistant container requirements. In this way, users of consumer chemical products would be alerted to HHHOCs in consumer chemical products where there is a risk of injury or adverse health effect and would be provided with necessary precautionary statements, such as instructions for safe use and first aid.

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is a United Nations (UN) standard intended to harmonize the hazard classification and hazard communication of chemicals globally, through labelling and safety data sheets. Like the CCCR, 2001, for the consumer sector it is expected that providing safety information to users through labeling will be the primary focus of GHS application. To help protect the health and safety of workers, the GHS

has been adopted for chemicals used, handled, and stored in workplaces in Canada, under the Hazardous Products Act and its regulations. The United States has also implemented the GHS in the workplace through the revised Hazard Communication Standard in 2012. In addition, the GHS has been adopted for the workplace and the consumer sector by numerous jurisdictions around the world including the European Union (EU), the United Kingdom (UK), and New Zealand.

## **Research Objectives**

Safety information is more likely to be read and followed when it is disclosed in a manner that is preferred and can be easily understood by people in Canada. Effective communication of safety information may contribute to a reduction in rates of injury or illness since this information would help to improve safe handling, use and storage of consumer chemical products. The primary objective of this research is to better understand people in Canada's use of current safety information disclosed on consumer chemical products and to compare viewpoints on current and possible future requirements related to safety information disclosure. This understanding will help to inform Health Canada's decisions during the regulatory development process.

The goals of the research include:

- determining current awareness and understanding of certain chemical product hazard symbols and hazard statements;
- understanding the level of importance to the public of disclosing health effects resulting from long term or repeated exposures versus acute health and physical hazards;
- identifying preferred hazard symbols, signal words, and precautionary statements from different hazard communication systems including the CCCR, 2001 and the GHS; and,
- identifying preferred format of label elements (i.e., location on the container, order, etc.).

## **Overview of Methodology**

A 16-minute online survey was conducted among a nationwide sample of Canadian adults between December 8-15, 2023. In total, n=3,006 Canadians completed the survey, including a sample boost of n=200 individuals who identify as Indigenous Peoples of Canada. The sample source was a non-probability online panel. Ipsos partnered with Canadian Viewpoint Inc. as a panel-based resource, (which is a diversely sourced and actively maintained panel of approximately 300,000 active panelists of Canadian adults). The survey was offered in both official languages and consisted of a series of closed-ended and open-ended questions designed in consultation with the Health Canada Project Authority.

The data were weighted to the Canadian population data by region, gender, and age. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. To ensure the data from the survey provides reliable information on the full spectrum of Canadians, a Sex- and Gender-Based Analysis Plus (SGBA+) framework was incorporated into the survey design and analysis.

## **Summary of Key Findings**

The survey found a large majority of Canadians use household cleaning chemicals and detergents frequently, at least once per week. Weekly usage of other types of household chemicals is less common. One-quarter of Canadians surveyed

use chemicals such as those associated with hobbies and crafts monthly; about the same proportion report using automotive chemicals monthly. Fortunately, many Canadians surveyed report reading and following safety instructions on household chemicals before using them. However, three in ten frequently do not read these instructions before using them.

The data suggests that frequent users of these chemicals are the least diligent about reading and following the instructions on household chemicals prior to using them. These frequent users skew younger, rather than older. Survey respondents aged 18-24 were more likely than those older than them to report using household chemicals and less likely to indicate they read and follow safety instructions on household chemicals prior to using them.

The survey found that most Canadians think hazard symbols are useful in alerting them about the hazards that can cause injury or death, and most Canadians have some knowledge of the hazard symbols surveyed. Most Canadians correctly identified one of the two hazard symbols, from the CCCR, 2001 or the GHS, representing a product that will cause your skin to burn or cause eye damage (61% for the CCCR, 2001 and 57% for the GHS), but only three in ten were able to correctly identify both hazard symbols. Only two in ten of those surveyed could correctly identify the GHS exclamation symbol as indicating less serious health effects may occur upon exposure (e.g., skin or eye irritation, allergic reactions). Only four in ten correctly identified the GHS health hazard symbol indicating that health effects such as cancer may occur upon exposure.

When it comes to hazard symbols that Canadians feel better alert them to the hazard, there is a reasonably good degree of consensus. By a margin of three-to-one, Canadians surveyed chose the explosive symbol from the CCCR, 2001 over the gas cylinder symbol from the GHS as the symbol that better alerted a user that a gas cylinder can explode if it is heated or punctured. However, opinions were divided when choosing which symbol would better alert that a household chemical is corrosive, i.e., the one from the CCCR, 2001 or the one from the GHS.

Three-quarters of Canadians surveyed agreed that safety information on household chemicals that they can buy on the Canadian market is adequate to protect their health and safety. However, when asked to choose the wording of hazard statements that would be most effective to them, there were often mixed opinions across those surveyed. Two-thirds of survey respondents opted for the hazard statement “extremely flammable liquid and vapour” as best in alerting users that a household chemical can easily catch fire if ignited with a flame or spark. A similar percentage chose the hazard statement “fatal if swallowed” as the best to alert users that a household chemical can cause death if swallowed. The hazard statement “may cause allergy or asthma symptoms or breathing difficulties if inhaled” was chosen as the best to alert users that a household chemical may cause an allergic reaction upon inhalation. Only a slim majority felt that the hazard statement “may cause reproduction harm or birth defects” best alerts users that a household chemical may harm the ability to reproduce.

When asked about the importance of the nature of the safety information disclosed on household chemical products, Canadians ranked the information about the safe handling, use, and storage of the product and information about the harmful chemical ingredients contained in the product as the most important. The least important was information about the first aid treatment upon exposure to the product and information about long term hazards. Of three cleaning labels presented to Canadians surveyed, the labels that were seen as most effective in prompting them to read detailed safety information, handle the product carefully or store the product in a safe place are the hybrid label of the CCCR, 2001 and the GHS (42%) or the full GHS label (37%).

Canadians surveyed would find it useful if the safety information displayed on a household chemical product was also available on the company's website. Majorities across all demographic and regional subgroups find this would be useful. In addition to the safety information provided on the label for a poisonous household chemical, Canadians surveyed were most likely to support the addition of a national toll-free phone number for poison centres (1-844-POISON-X) (82%) or instructions on how to dispose a product safely (77%). Far fewer want to see concentration values for hazardous ingredients (40%).

## 1. Introduction

### 1.1 Background

The Consumer Product Safety Program at Health Canada is responsible for the administration and enforcement of the *Canada Consumer Product Safety Act* (CCPSA) and its regulations. The purpose of the CCPSA is to protect the public by addressing or preventing dangers to human health or safety posed by consumer products in Canada. The Act sets out a general prohibition on consumer products that are a danger to human health or safety and several product specific regulations.

A wide variety of consumer chemical products such as household cleaning products, adhesives, and lubricants are available to the Canadian public. The *Consumer Chemicals and Containers Regulations, 2001* (CCCR, 2001 or Regulations) under the CCPSA help to protect people in Canada from certain acute human health and physical hazards associated with consumer chemical products, through prohibitions and restrictions on dangerous consumer chemical products, safety information disclosure in the form of labelling requirements, and container requirements like child-resistant containers. The labelling requirements of the CCCR, 2001 include hazard symbols, signal words (e.g., "DANGER") and hazard statements (e.g., "POISON") that help alert users to hazards. In addition, there are labelling requirements for safe use and first aid instructions, and a list of hazardous ingredients contained in the product. The acute human health and physical hazards that are currently addressed by the CCCR, 2001 are:

- acute toxicity (lethal or serious but non-lethal effects);
- corrosivity (chemical burns and eye damage);
- flammability (chemicals that catch fire);
- pressurized containers (containers that may explode if heated or punctured); and,
- quick skin-bonding adhesives (adhesives that bond skin instantly or nearly instantly).

Many substances contained in consumer chemical products are linked to human health hazards of concern (HHHOCs), including those that may cause an adverse health effect resulting from long term or intermediate exposure. However, the CCCR, 2001 do not include requirements that specifically help mitigate the risks for the following HHHOCs:

- carcinogenicity (induction of cancer);
- germ cell mutagenicity (heritable gene mutations);
- reproductive toxicity (adverse effects on sexual function, fertility, or developmental toxicity in offspring);
- specific target organ toxicity (adverse effects on target organs after single or repeated exposure); and,
- respiratory or skin sensitization (allergic reactions or hypersensitivity).

To help protect people in Canada from HHOCs found in consumer chemical products, Health Canada is developing a regulatory proposal for new health and safety requirements under the CCPSA. This objective may be achieved by establishing hazard classification criteria, labelling requirements, and additional protections such as prohibitions, restrictions, or child-resistant container requirements. In this way, users of consumer chemical products would be alerted to HHOCs in consumer chemical products where there is a risk of injury or adverse health effect and would be provided with necessary precautionary statements, such as instructions for safe use and first aid.

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is a United Nations (UN) standard intended to harmonize the hazard classification and hazard communication of chemicals globally, through labelling and safety data sheets. Like the CCCR, 2001, for the consumer sector it is expected that providing safety information to users through labeling will be the primary focus of GHS application. To help protect the health and safety of workers, the GHS has been adopted for chemicals used, handled, and stored in workplaces in Canada, under the *Hazardous Products Act* and its regulations. The United States has also implemented the GHS in the workplace through the revised Hazard Communication Standard in 2012. In addition, the GHS has been adopted for the workplace and the consumer sector by numerous jurisdictions around the world including the European Union (EU), the United Kingdom (UK), and New Zealand.

Safety information is more likely to be read and followed when it is disclosed in a manner that is preferred and can be easily understood by people in Canada. Effective communication of safety information may contribute to a reduction in rates of injury or illness since this information would help to improve safe handling, use and storage of consumer chemical products. The primary objective of this research is to better understand people in Canada's use of current safety information disclosed on consumer chemical products and to compare viewpoints on current and possible future requirements related to safety information disclosure. This understanding will help to inform Health Canada's decisions during the regulatory development process.

## 1.2 Research Objectives

The primary objective of this research is to better understand people in Canada's perspective on current safety information disclosed on consumer chemical products and to compare viewpoints on current and possible future requirements related to safety information disclosure.

The goals of the research include:

- determining current awareness and understanding of certain hazard symbols;
- understanding the level of importance to the public of disclosing possible health effects resulting from long term or repeated exposures versus acute health and physical hazards;
- identifying preferred hazard symbols, signal words, and precautionary statements from different hazard communication systems including the CCCR, 2001 and the GHS; and,
- identifying preferred format of label elements (i.e., location on the container, order, etc.).

## 1.3 Methodology



A 16-minute online survey (see the Appendix for the Survey Instrument) was conducted among a nationwide sample of Canadian adults between December 8-15, 2023. In total, n=3,006 Canadians completed the survey, including a sample boost of n=200 individuals who identify as Indigenous Peoples of Canada. The sample source was an online panel. Ipsos partnered with Canadian Viewpoint Inc. as a panel-based resource, (which is a diversely sourced and actively maintained panel of approximately 300,000 active panelists of Canadian adults). The survey was offered in both official languages and consisted of a series of closed-ended and open-ended questions designed in consultation with the Health Canada Project Authority. An online pre-test was conducted with 20 English language participants and 16 French language participants.

Safety information tested included written messaging and images, such as:

- label elements to help alert the user to the hazards including hazard symbols (see Glossary of Symbols and Labels), signal words (e.g., “Warning”), and hazard statements (e.g., “Suspected of causing cancer”);
- precautionary statements such as safe use and first aid instructions; and,
- a list of hazardous chemical ingredients contained in the product.

To support the accessibility of the survey, all images (hazard symbols and labels) included in the survey had alternative text. Alternative text does not simply describe the visual aspects of the image, but rather conveys the same message/information as the image. The provision of alternative text enhances accessibility to Canadians with visual impairment.

The data were weighted to the Canadian population data by region, gender, and age. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error and measurement error. To ensure the data from the survey provides reliable information on the full spectrum of Canadians, a Sex- and Gender-Based Analysis Plus (SGBA+) framework was incorporated into the survey design and analysis. To support this analysis, the sample size and frame was designed to allow for large enough samples of the following sub-groups:

- Black, Indigenous and Other People of Colour (BIPOC) communities;
- those whose first language is a non-official language;
- those with younger children in their household; and,
- those with education below college/CEGEP.

More details on the methodology are provided in the Appendix.

Within the report, unless otherwise indicated, weighted data have been presented. Where figures do not sum to 100, this is due to rounding effects or because respondents were permitted to offer more than one response.

## **1.4 Description of SGBA+ Analysis**

The report applied a SGBA+ analysis to support a detailed understanding of how knowledge of, and preferences for, safety information may be different between survey respondents. SGBA+ is an analytical tool to support the development of responsive and inclusive initiatives, including policies, programs, and other initiatives. SGBA+ is a process for understanding who is impacted by the issue being addressed by the initiative; identifying how the initiative could be tailored to meet diverse needs of the people most impacted; and anticipating and mitigating any barriers to

accessing or benefitting from the initiative. SGBA+ is also an ongoing process that does not stop once an initiative has been developed. SGBA+ analysis can be applied to all stages of initiative development, implementation, monitoring, and evaluation. Applying SGBA+ early in the policy development process ensures that diversity considerations are embedded in the decision-making process, allowing for responsive and inclusive initiatives that meet the needs of diverse groups of people.

## 1.5 Reporting Conventions

### Age

To assist in describing the observed differences between respondents by age, two age variables were analyzed – age categories and age categories organized by generation.

Age Categories were defined as follows:

- 18-24 years
- 25-34 years
- 35-44 years
- 45-54 years
- 55-64 years
- 65+ years

Age Categories were also organized by Generation, and defined as follows:

- Gen Z: 18-26 years
- Millennial: 27-42 years
- Gen X: 43-58 years
- Boomer: 59+ years

### Usage Index

To assist in describing the observed differences between respondents based on the frequency of using household and other chemicals, an index was created to represent the combined usage of chemicals measured at Q1 of the survey.

Q1. For each of the following household chemical categories, please indicate how often you use them.

- a. Household cleaning products, including chemicals for floor and window cleaning, as well as bleach
- b. Detergents like laundry detergent or dish soap
- c. Hobbies and crafts (e.g. adhesives, science education sets)
- d. Paints, coatings, or stains
- e. Automotive chemicals (e.g. brake fluid, windshield washer fluid, engine oil)

Usage Index Calculation

- 1= Daily
- 2= 2-5 times per week
- 3= Once per week
- 4= Monthly
- 5= Rarely

The additive index ranges from 5-25 and was reported in the following cuts (roughly equal thirds)

- High frequency user or high usage = 5-16
- Medium frequently users or medium usage = 17-19
- Low frequency users or low usage = 20-25

### **Knowledge Index**

To assist in describing the observed differences between respondents based on their knowledge of certain hazard symbols, an index was created to represent the combined correct answers measured at Q3, Q4 and Q5 of the survey.

- “Q3. Which symbol(s) represent a household chemical that is corrosive (i.e., can cause your skin to burn or cause eye damage? Select all that apply.” (six hazard symbols were shown, and alternative text was provided for each)
- “Q4. With respect to household chemical labels, what do you think is the meaning of the following symbol?” (the GHS exclamation mark symbol was shown, and alternative text provided)
- “Q5. With respect to household chemical labels, what do you think is the meaning of the following symbol?” (the GHS health hazard symbol was shown, and alternative text provided)

#### Knowledge Index Calculation

There are 4 correct answers: 2 at Q3, 1 at Q4 and 1 at Q5.

The additive index ranges from 0-4 and was reported in the following cuts (roughly equal thirds)

- High levels of knowledge = 3-4 correct answers
- Medium levels of knowledge = 2 correct answers
- Low level of knowledge = 0-1 correct answers

## **2. Frequency of Use and Perceptions of Household Chemical Labelling**

### **2.1 Section Overview**

The survey found that three-quarters (74%) of Canadians use household cleaning chemicals and detergents frequently, at least once per week. Weekly usage of other types of household chemicals is less common, but large minorities of Canadians use chemicals such as those associated with hobbies and crafts (23%) or automotive (29%) monthly. Fortunately, many Canadians surveyed (71%) report reading and following safety instructions on household chemicals before using them. However, three in ten of those surveyed do not read these instructions before using them, including 18% who are neutral in their response, suggesting they may be following these labels infrequently and 12% who outright disagree that they read and follow the instructions on these products.

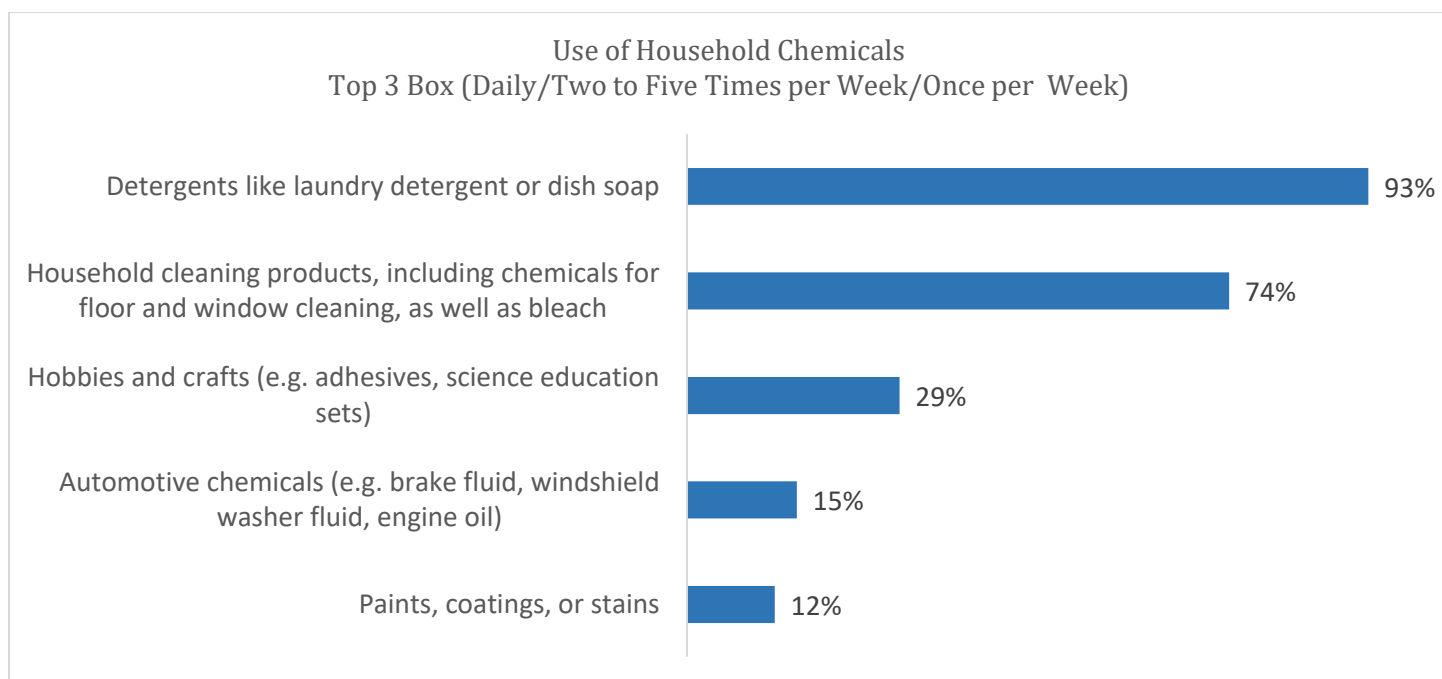
The data suggests that frequent users of these chemicals are the least diligent about reading and following the instructions on household chemicals prior to using them. These frequent users skew younger, rather than older. Survey respondents aged 18-24 were more likely than those older than them to report using household chemicals (55% identify as a high frequency users) and less likely to indicate they read and follow safety instructions on household chemicals prior to using them (58% compared with over 70% of those over age 25). Those aged 65+ are most likely to be reading and following instructions (78%).

The survey found that most Canadians (92%) think hazard symbols are useful in alerting them about the hazards that can cause injury or death, but fewer (77%) feel the safety information on labels are adequate to protect their health and safety.

## 2.2 Frequency of Use of Household Chemicals

As shown in Figure 1, when asked how often they use specific household chemicals, the most frequently mentioned chemicals (used at least once per week) were detergents like laundry detergent or dish soap (93%), followed by household cleaning products, including chemicals for floor and window cleaning, as well as bleach (74%). Other chemicals are used much less frequently. Weekly use of chemicals associated with hobbies and crafts (29%), automotive chemicals (15%), or paints, coatings, or stains (12%) is much less common.

Figure 1. Frequency of Use of Household Chemicals

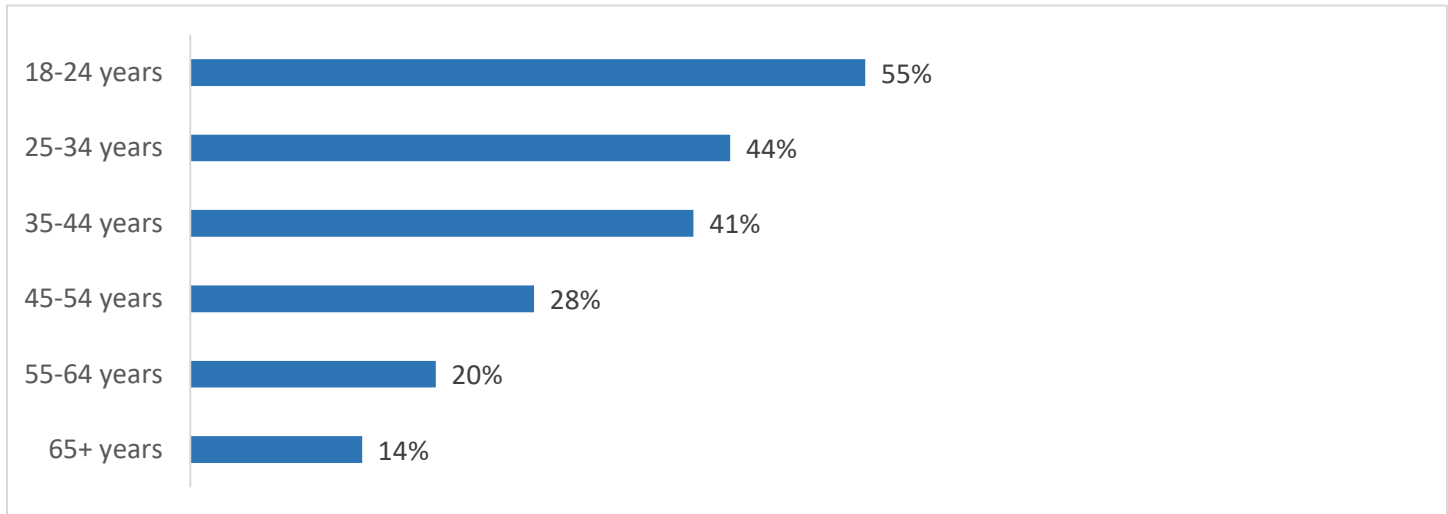


Survey reference: Q1. For each of the following household chemical categories, please indicate how often you use them.

Base: All respondents 2023 (n=3006).

Usage was found to be higher among some groups of Canadians. Over half (55%) of survey respondents aged 18-24 identify as high frequency users. This is significantly higher than any other age category. In fact, frequency of usage declines incrementally with age as shown in Figure 2 below.

Figure 2. High Frequency Users of Household Chemicals by Age Categories



Survey reference: Q1. For each of the following household chemical categories, please indicate how often you use them.

Base: All respondents 2023 (n=3006).

Indigenous survey respondents use most of these chemicals more frequently than non-Indigenous respondents: household cleaning products (86% weekly vs 73% weekly), hobbies and craft (54% vs 27%), paints, coatings, or stains (32% vs 10%), or automotive chemicals (34% vs 14%). Canadians with children under the age of 5 years in the household also tend to be high frequency users of chemicals (60%) compared to 49% among those with children 5 to 11 years, 47% among those with children 12-18 years and 26% among those with no children.

Most Black (89%) and South Asian (83%) women surveyed reported using household cleaning products weekly, which is more often than other women. Similarly, Black (89%) and Arab (94%) men were more likely than men who identify with another ethnicity to frequently use household cleaning products.

Usage was found to be higher among survey respondents who work in construction (85%), food, accommodation, or hospitality (85%) and health and social services (82%) compared to those who work in high tech or computers (72%).

## 2.3 Perceptions of and Personal Use of Household Chemical Labelling

Specific hazard symbols are seen as very useful. Nine in ten (92%) Canadians surveyed agree they are useful in alerting people to hazards that can cause injury or death. Smaller proportions, but still large majorities, indicate they find the current labelling of household chemicals they can buy in the Canadian market makes it easy for them to know when the product contains harmful chemical ingredients (79%), or agree that for household chemicals they can buy on the Canadian market, the safety information included on the label is adequate to protect their health and safety (77%). Seven in ten (71%) indicated that they read and follow safety instructions on household chemicals prior to using them.

*Table 1. Proportion of Canadians Who Agree with Statements about Household Chemical Labelling*

Statements	Proportion of respondents that Strongly or Somewhat Agree
Hazard symbols, like the ones below, are useful for alerting people to hazards that can cause injury or death	92%
I find the current labelling of household chemicals you can buy on the Canadian market makes it easy to know when the product contains harmful chemical ingredients	79%
For household chemicals that you can buy on the Canadian market, the safety information included on the label is adequate to protect your health and safety	77%
I read and follow safety instructions on household chemicals prior to using them	71%

Survey reference: Q2. For the following statements, please indicate to what extent you agree or disagree:

Base: All respondents 2023 (n=3006).

Majorities of those surveyed across nearly all demographic and regional subgroups agree with all four of the statements tested. However, older survey respondents were more likely to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death. Agreement was 96% among Boomers (59+ years), 94% among Gen X (43-58 years), 89% among Millennial (27-42 years) compared with 82% among Gen Z (18-26 years). Older survey respondents were also more likely to agree that the current labelling of household chemicals they can buy on the Canadian market makes it easy to know when the product contains harmful chemical ingredients. Agreement was 81% among Boomers (59+ years), 79% among Gen X (43-58 years), 80% among Millennial (27-42 years) compared with 71% among Gen Z (18-26 years). Only 59% of Gen Z (18-26 years) agreed they read and follow safety instructions on household chemicals prior to using them compared with 77% among Boomers (59+ years), 71% among Gen X (43-58 years) and 70% among Millennial (27-42 years).

Indigenous survey respondents (85%) were less likely than non-Indigenous respondents (93%) to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death. Survey respondents who identify as White (94%) were more likely than nearly all other ethnic subgroups to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death; others are less likely to find the symbols useful (89% among those identifying as Chinese, 87% Black, 86% South Asian, 83% Latin American, 82% Filipino, and 80% Arab).

Survey respondents in the high tech or computers (91%) or manufacturing (91%) sectors were more likely than those working in the agricultural sector (76%) to say they read and follow safety instructions on household chemicals prior to using them. Those in the health and social services sector (97%) were more likely than those in construction (91%), finance, insurance, or real estate (92%) or sales (93%) to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death. Those in high tech or computers (97%) or the food, accommodation, or hospitality (95%) sector were more likely than those in the agriculture sector (85%) to agree that for household chemicals that they can buy on the Canadian market the safety information included on the label is adequate to protect their health and safety. Those in high tech or computers (98%) were more likely than those in artistic, crafts, music, or entertainment (90%), construction (92%) or transport or utilities (89%) to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death.

Low frequency and medium frequency users of household chemicals were more likely than high frequency users to read and follow safety instructions on household chemicals prior to using them (90% among low and medium vs 85% among high). Low frequency (98%) and medium frequency (97%) users were also more likely to agree that the hazard symbols shown to them are useful for alerting people to hazards that can cause injury or death compared with high frequency household chemical users (92%).

### 3. Knowledge of Hazard Symbols

#### 3.1 Section Overview

Canadians surveyed demonstrated some knowledge of the hazard symbols tested in the survey. Seniors aged 65+ demonstrated lower levels of knowledge than younger Canadians surveyed. South Asian Canadians surveyed demonstrated higher levels of knowledge than others. No significant differences were observed by education or sector of work.

#### 3.2 Knowledge of Corrosive Symbols

As shown in Table 2, when shown depictions of six symbols, most Canadians surveyed were able to mention one of the two hazard symbols representing a product that will cause their skin to burn or cause eye damage. Similar proportions correctly chose the corrosive symbol from the CCCR, 2001 or the corrosive symbol from the GHS (61% and 57% respectively), only three in ten (29%) correctly chose both. Between one and two in ten each incorrectly chose one of four other symbols.

Table 2. Knowledge of Corrosive Symbols

Symbols (see Glossary of Symbols and Labels)	Proportion of survey respondents	Correct and Incorrect responses
CCCR, 2001 corrosive symbol	61%	✓
GHS corrosion symbol	57%	✓
<b>Net Correct</b>	<b>29%</b>	
CCCR, 2001 poison symbol	21%	X
CCCR, 2001 explosive symbol	17%	X
GHS health hazard symbol	12%	X
GHS exclamation mark symbol	7%	X

Survey reference: Q3 Which symbol(s) represent a household chemical that is corrosive (i.e., can cause your skin to burn or cause eye damage)? Select all that apply. Base: All respondents 2023 (n=3006).

Chinese respondents (41%) were more likely than White (28%), Black (28%), South Asian (30%), or Filipino (21%) respondents to correctly identify both symbols that represent a household chemical that is corrosive.

There are no significant differences across sectors of work when it comes to knowledge of the corrosive hazard symbols surveyed.

### 3.3 Knowledge of Certain Other Hazard Symbols

As shown in Table 3, when shown the exclamation mark symbol from the GHS (see Glossary of Symbols and Labels) and asked what they think is the meaning of the symbol with respect to household chemical labels, only two in ten (18%) survey respondents correctly identified it as a symbol indicating less serious health effects may occur upon exposure (e.g., skin or eye irritation, allergic reactions). Six in ten (60%) incorrectly identified it as a general warning symbol that this is a chemical, while two in ten (19%) incorrectly identified it as a symbol indicating an extreme danger (e.g., serious eye damage, highly toxic substance).

Table 3. Knowledge of the GHS Exclamation Mark Symbol (see Glossary of Symbols and Labels)

Indication	Proportion of survey respondents	Correct and Incorrect responses
General warning symbol that this is a chemical	60%	X
Symbol indicating an extreme danger (e.g., serious eye damage, highly toxic substance)	19%	X
<b>Symbol indicating less serious health effects may occur upon exposure (e.g., skin or eye irritation, allergic reactions)</b>	<b>18%</b>	<b>✓</b>
Other	3%	X

Survey reference: Q4 With respect to household chemical labels, what do you think is the meaning of the following symbol? Select one only. Base: All respondents 2023 (n=3006).

When looking at intersectionality, women aged 18-24 years (28%) were more likely to correctly understand the meaning of the exclamation mark symbol from the GHS than those aged 25-34 years (19%), aged 35-44 years (18%), aged 45-54 years (15%), aged 55-64 years (14%), and aged 65+ years (14%). Knowledge of the symbol was also higher among Indigenous women (29%) compared with non-Indigenous women (17%). And men of Chinese descent (30%) were more likely than men who identify as white descent to correctly understand the meaning of the symbol (18%).

Survey respondents working in construction (24%), or transport or utilities (25%) were more likely than those who work in business services (11%) or food or accommodation (13%) to have knowledge of the GHS exclamation mark symbol.

As shown in Table 4, when shown the health hazard symbol from the GHS (see Glossary of Symbols and Labels) and asked what they think is the meaning of the symbol with respect to household chemical labels, four in ten (41%) correctly identified it as a symbol indicating that health effects such as cancer may occur upon exposure. Slightly fewer (37%) incorrectly identified it as a symbol indicating a biohazard (e.g., bacteria or virus causing a human health effect), while two in ten (19%) incorrectly identified it as a symbol indicating that skin corrosion (e.g., burns) may occur upon exposure.



Table 4. Knowledge of GHS Health Hazard Symbol (see Glossary of Symbols and Labels)

Indication	Proportion of survey respondents	Correct and Incorrect responses
Symbol indicating that health effects such as cancer may occur upon exposure	41%	✓
Symbol indicating a biohazard (e.g., bacteria or virus causing a human health effect)	37%	X
Symbol indicating that skin corrosion (e.g., burns) may occur upon exposure	19%	X
Other	3%	X

Survey reference: Q5 With respect to household chemical labels, what do you think is the meaning of the following symbol? Select one only. Base: All respondents 2023 (n=3006).

At 31% providing a correct response, women aged 65+ years and older were least likely to correctly identify the meaning of the health hazard symbol from the GHS. This result was significantly lower than women aged 55-64 years (40%), aged 45-54 years (43%), aged 35-44 years (43%), aged 25-34 years (42%), and aged 18-24 years (42%). Women respondents from Quebec were more likely than women from nearly all other regions of the country to understand the meaning (47%) compared with 35% in Alberta, 31% in Manitoba/Saskatchewan, 38% in Ontario, and 31% in Atlantic.

Survey respondents working in education services (48%), food, accommodation, or hospitality (49%), health and social services (46%), manufacturing (48%) or transport or utilities (48%) were more likely than those in finance, insurance, or real estate (34%) or sales (35%) to have knowledge of GHS health hazard symbol.

## 4. Preference for Hazard Symbols

### 4.1 Section Overview

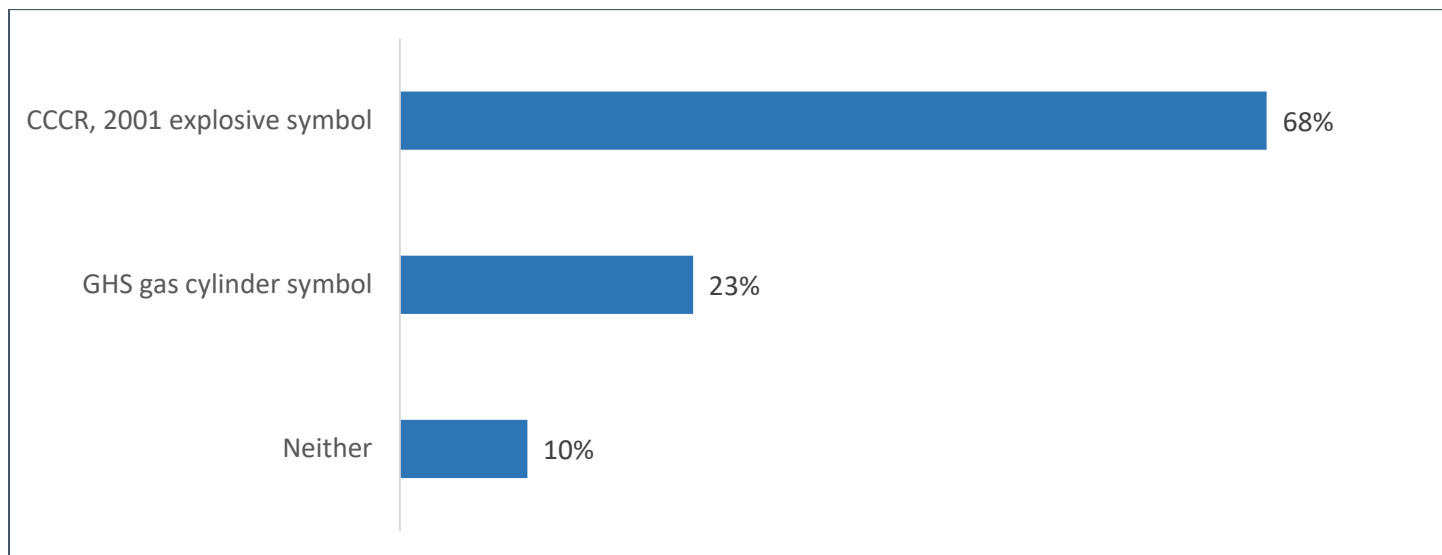
By a clear margin of three-to-one, Canadians surveyed chose the explosive symbol from the CCCR, 2001 over the gas cylinder symbol from the GHS (see Glossary of Symbols and Labels) as the symbol that better alerted a user that a gas cylinder can explode if it is heated or punctured (68% vs 23%). The main reason for this choice was related to the symbol design, specifically a preference for showing an explosion.

However, opinion was divided when it came to choosing between two symbols, which would better alert that a household chemical is corrosive: one-half (50%) chose the CCCR, 2001 symbol, while a similar proportion (46%) opted for the GHS symbol. The main reason for choosing the CCCR, 2001 symbol was the bony hand with no skin on it was a better/more effective symbol design.

### 4.2 Preferred Hazard Symbol

As shown in Figure 3, Canadians surveyed were asked to decide between two hazard symbols which they think better alerts a user that a gas cylinder can explode if it is heated or punctured. Two-thirds (68%) chose the explosive symbol from the CCCR, 2001 compared to only about a quarter (23%) who opted for the gas cylinder symbol from the GHS (see Glossary of Symbols and Labels), and one in ten (10%) who chose neither.

Figure 3. Symbol That Better Alerts That a Gas Cylinder Can Explode if Heated or Punctured



Survey reference: Q6 A) Of the two symbols presented below, which do you think better alerts a user that a gas cylinder can explode if it is heated or punctured? Base: All respondents 2023 (n=3006).

Majorities across all subgroups preferred the CCCR, 2001 explosive symbol, but preference varied by age, region, Indigenous identity, men with children in the household or sector of work (see Table 5 below).

As noted below, this view was higher among survey respondents aged 55 years and older compared to younger respondents. It was also higher in Quebec compared to most other regions (except for Atlantic Canada). Non-Indigenous men were also more likely to prefer this symbol compared to Indigenous men. This view was also higher among men with no children than those with children under 12 years of age. This view was also higher among respondents who work in agriculture, artistic, crafts, music or entertainment, education services.

Table 5. Preference for CCCR, 2001 Explosive Symbol

Subgroup	%
<b>AGE</b>	
65+ years	75%
55-64 years	72%
45-54 years	66%
25-34 years	65%
35-44 years	64%
18-24 years	61%
<b>REGION</b>	
Quebec	76%
Atlantic	70%
BC/Territories	69%
Manitoba/Saskatchewan	66%
Alberta	65%

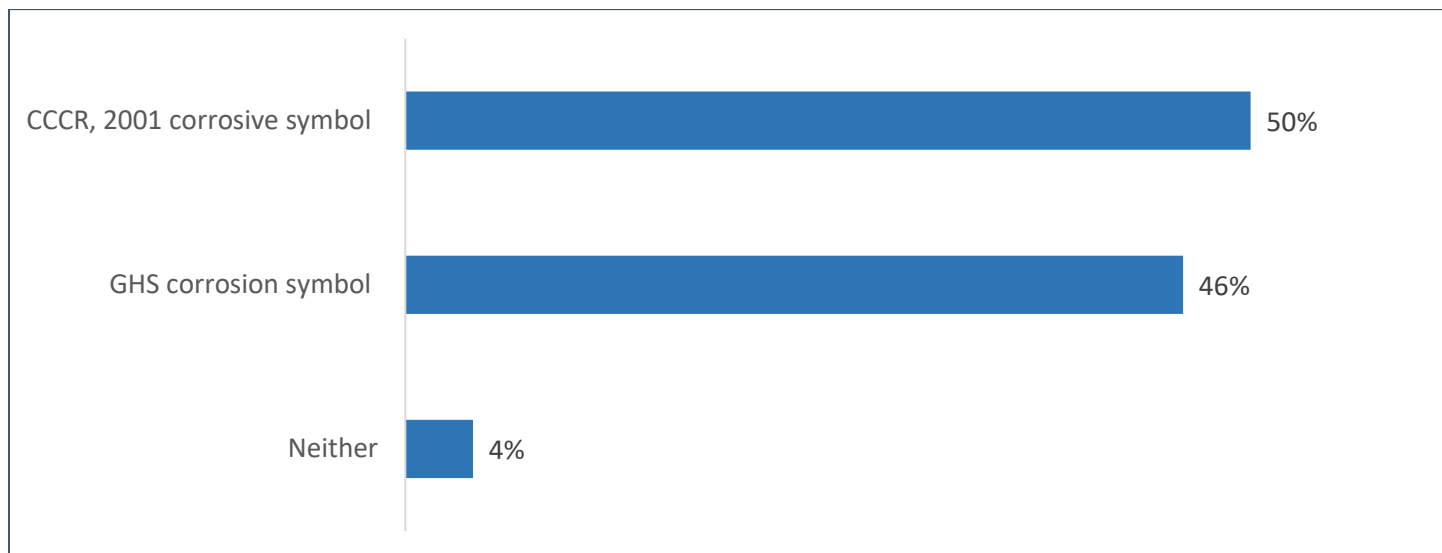
<b>Subgroup</b>	<b>%</b>
Ontario	63%
<b>MALE INDIGENOUS IDENTITY</b>	
Non-Indigenous men	68%
Indigenous men	57%
<b>MALE WITH CHILDREN IN HOUSEHOLD</b>	
Men with no children	70%
Men with children 12-18 years	63%
Men with children 5-<12 years	58%
Men with children <5 years	51%
<b>SECTOR OF WORK</b>	
Agriculture	84%
Artistic, crafts, music, or entertainment	78%
Transportation/communications/other utilities	72%
Educational services	70%
Business services	69%
Food, accommodation/hospitality	67%
Construction	66%
Finance/insurance/real estate	62%
Health and social services	62%
High tech/computers	62%
Sales	57%
Manufacturing	56%
International trade	55%
Primary industry (not agriculture) (forestry, mining, resource extraction etc.)	50%

Survey reference: Q6 A) Of the two symbols presented below, which do you think better alerts a user that a gas cylinder can explode if it is heated or punctured? Base: All respondents 2023 (n=3006).

When Canadians surveyed were asked why they chose the CCCR, 2001 explosive symbol, the most common responses were “shows an explosion” (23%), followed by “explosion image or symbol” (13%), “explosion is clearly or better illustrated” (12%), looks like an “explosion or something exploding” (11%) or “explosion or explodes” (9%). Smaller proportions mentioned some other response. When Canadians surveyed were asked why they chose the GHS gas cylinder symbol, the most common responses were “image of cylinder or container” (33%), followed by “gas cylinder or container” (23%). Smaller proportions mentioned some other response.

Canadians surveyed were asked to decide between two hazard symbols which they think better alerts that a household chemical is corrosive (i.e., can cause your skin to burn). Preference was divided with one-half (50%) choosing the CCCR, 2001 corrosive symbol and a similar proportion (46%) opting for the GHS corrosion symbol (see Glossary of Symbols and Labels). Four percent chose neither option.

Figure 4. Symbol That Better Alerts That a Household Chemical Is Corrosive



Survey reference: Q7 A) Of the two symbols presented below, which do you think better alerts that a household chemical is corrosive (i.e., can cause your skin to burn)? Base: All respondents 2023 (n=3006).

As seen in Tables 6 and 7 below, preference for each of the hazard symbols representing a corrosive household chemical varied by gender, generation, region, children in household, Indigenous identity, sector of work and frequency of usage of household chemicals. Preference for the CCCR, 2001 corrosive symbol was higher among women than men. It was also higher among Boomers (59+ years) compared to Gen X (43-58 years), Millennials (27-42 years) or Gen Z (18-26 years).

Preference for the CCCR, 2001 corrosive symbol was also higher among Quebec survey respondents compared to those from other regions. This symbol was also preferred by those with no children in the household compared to those with children. It was also higher among non-Indigenous survey respondents compared with Indigenous respondents.

Preference for the CCCR, 2001 corrosive symbol was also higher among those working in artistic, crafts, music or entertainment, business services, and financial, insurance or real estate compared to those in the construction, food, accommodation or hospitality, high tech or computers and manufacturing. Low frequency and medium frequency users of household chemicals were more likely to prefer the CCCR, 2001 corrosive symbol than high frequency users.

Table 6. Preference for the CCCR, 2001 Corrosive Symbol

Subgroup	%
<b>GENDER</b>	
Female	54%
Male	47%
<b>GENERATION</b>	
Boomers – aged 59+	64%
Gen X – aged 43-58	53%
Millennials – aged 27-42	39%
Gen Z – aged 18-26	32%

<b>Subgroup</b>	<b>%</b>
<b>REGION</b>	
Quebec	65%
Manitoba/Saskatchewan	54%
Atlantic	48%
Alberta	46%
Ontario	45%
BC/Territories	44%
<b>CHILDREN IN HOUSEHOLD</b>	
Those with no children	53%
Those with children 12-18 years	45%
Those with children 5-<12 years	41%
Those with children <5 years	40%
<b>INDIGENOUS IDENTITY</b>	
Non-Indigenous	51%
Indigenous	40%
<b>SECTOR OF WORK</b>	
Artistic, crafts, music, or entertainment	58%
Business services	56%
Finance/insurance/real estate	55%
Agriculture	49%
Educational services	48%
Sales	46%
Health and social services	44%
Transportation/communications/other utilities	42%
Construction	41%
Food, accommodation/hospitality	36%
High tech/computers	36%
Manufacturing	35%
International trade	33%
Primary industry (not agriculture)(forestry, mining, resource extraction etc.)	25%
<b>USE OF HOUSEHOLD CHEMICALS</b>	
Low frequency users	56%
Medium frequency users	53%
High frequency users	41%

Survey reference: Q7 A) Of the two symbols presented below, which do you think better alerts that a household chemical is corrosive (i.e., can cause your skin to burn)? Base: All respondents 2023 (n=3006).

Table 7 below outlines how preference for the GHS corrosion symbol varied by sub-groups. It was higher among men than women, and higher among Gen Z (18-26 years), Millennials (27-42 years) and Gen X (43-58 years) compared to Boomers (59+ years). Regionally, it was higher among survey respondents outside Quebec compared to those living in Quebec and was preferred by those with children in the household more so than those with no children, and among Indigenous survey respondents more so than non-Indigenous respondents.

The GHS corrosion symbol was preferred at higher levels among those working in manufacturing, food, accommodation or hospitality, high tech or computers, transportation, communications or other utilities, construction and health and social services compared to those in artistic, crafts, music or entertainment, business services and finance, insurance, or real estate. It was also more often preferred among high frequency users of household chemicals compared with medium or low frequency users.

*Table 7. Preference for GHS Corrosion Symbol*

<b>Subgroup</b>	<b>%</b>
<b>GENDER</b>	
Male	50%
Female	42%
<b>GENERATION</b>	
Gen Z – 18-26 years	65%
Millennials – 27-42 years	58%
Gen X – 43-58 years	44%
Boomers – 59+ years	32%
<b>REGION</b>	
Alberta	53%
Ontario	52%
BC/Territories	51%
Atlantic	48%
Manitoba/Saskatchewan	44%
Quebec	31%
<b>CHILDREN IN HOUSEHOLD</b>	
Those with children <5 years	58%
Those with children 5-<12 years	54%
Those with children 12-18 years	51%
Those with no children	44%
<b>INDIGENOUS IDENTITY</b>	
Indigenous	59%
Non-Indigenous	45%
<b>SECTOR OF WORK</b>	
Primary industry (not agriculture) (forestry, mining, resource extraction etc.)	75%
International trade	67%
Manufacturing	62%
Food, accommodation/hospitality	61%
High tech/computers	59%
Transportation/communications/other utilities	58%
Construction	57%
Health and social services	54%
Agriculture	51%

Subgroup	%
Sales	51%
Educational services	50%
Finance/insurance/real estate	42%
Business services	40%
Artistic, crafts, music, or entertainment	38%
<b>USE OF HOUSEHOLD CHEMICALS</b>	
High frequency users	56%
Medium frequency users	44%
Low frequency users	40%

Survey reference: Q7 A) Of the two symbols presented below, which do you think better alerts that a household chemical is corrosive (i.e., can cause your skin to burn)? Base: All respondents 2023 (n=3006).

When Canadians surveyed were asked why they chose the CCCR, 2001 corrosive symbol, the most common responses were “skeletal or skeletal hand” (16%), “bones or boney” (14%), “no skin on hand or skin” (13%) or “burned hand or skin” (10%). Smaller proportions mentioned other responses. When Canadians surveyed were asked why they chose the GHS corrosion symbol, the most common responses were showing a “burned hand or skin” (17%), followed by “burning illustration” (12%), “harmful or damage to skin” (10%), “liquid pour/chemical poured on skin or hand” (10%), or “symbol design” (9%). Smaller proportions mentioned other responses.

## 5. Perceived Effectiveness of Hazard Statements

### 5.1 Section Overview

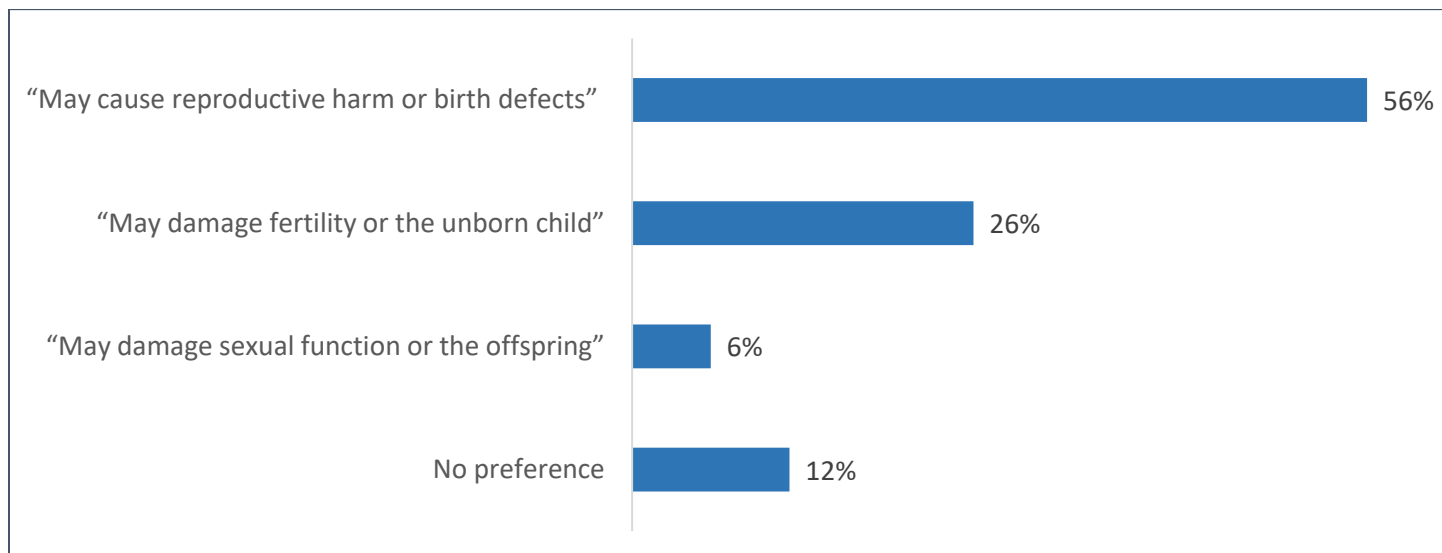
Most Canadians surveyed clearly chose one hazard statement over other choices when asked about the effectiveness of various statements that alert users about hazards associated with household chemicals. Majorities of two-thirds each opted for the hazard statement “extremely flammable liquid and vapour” as best in alerting users that a household chemical can easily catch fire if ignited with a flame or spark (66%), the hazard statement “fatal if swallowed” as best to alert users that a household chemical can cause death if swallowed (65%), and the hazard statement “may cause allergy or asthma symptoms or breathing difficulties if inhaled” as best to alert users that a household chemical may cause an allergic reaction upon inhalation (65%). More than half (56%) felt that the hazard statement “may cause reproduction harm or birth defects” best alerts users that a household chemical may harm the ability to reproduce.

Quebec survey respondents were less likely than respondents in other regions to think that any of the most chosen hazard statements would be the most effective in alerting users about various hazards associated with household chemicals.

### 5.2 Effectiveness of Hazard Statement to Alert That a Household Chemical May Harm Ability to Reproduce

As shown in Figure 5, when presented with three hazard statements that would alert users that a household chemical may harm the ability to reproduce, the hazard statement seen as most effective was “may cause reproductive harm or birth defects” (56%). Smaller proportions of survey respondents opted for “may damage fertility or the unborn child” (26%) or “may damage sexual function or the offspring” (6%). One in ten (12%) expressed no preference.

Figure 5. Most Effective Hazard Statement to Alert That a Household Chemical May Harm Ability To Reproduce



Survey reference: Q8. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only. For a household chemical that may harm the ability to reproduce: Base: All respondents 2023 (n=3006).

The belief that the hazard statement “may cause reproductive harm or birth defects” is the most effective was higher among younger respondents compared with older respondents: 63% among Gen Z (18-26 years) and 61% among Millennials (27-42 years) compared with 54% among Gen X (43-58 years) and 51% among Boomers (59+ years).

Respondents who reside in Quebec were more likely than those in other regions, particularly in Alberta, to think the statement “may damage fertility or the unborn child” is most effective (35% vs 14%), while respondents who live outside Quebec, particularly Albertans, were more likely than Quebec respondents to think the statement “may cause reproductive harm or birth defects” would be most effective (70% vs 39%).

Survey respondents working in business services (73%) were more likely than those working in finance, insurance, or real estate (59%), high tech or computers (58%), health and social services (57%), transport or utilities (57%) or education services (53%) to think the statement “may cause reproductive harm or birth defects” is the most effective. In contrast, those working in education services (30%), health and social services (29%), transport or utilities (27%), food, accommodation, or hospitality (25%) or manufacturing (25%) were more likely than those in business services (13%) to believe the statement “may damage fertility or the unborn child” is the most effective.

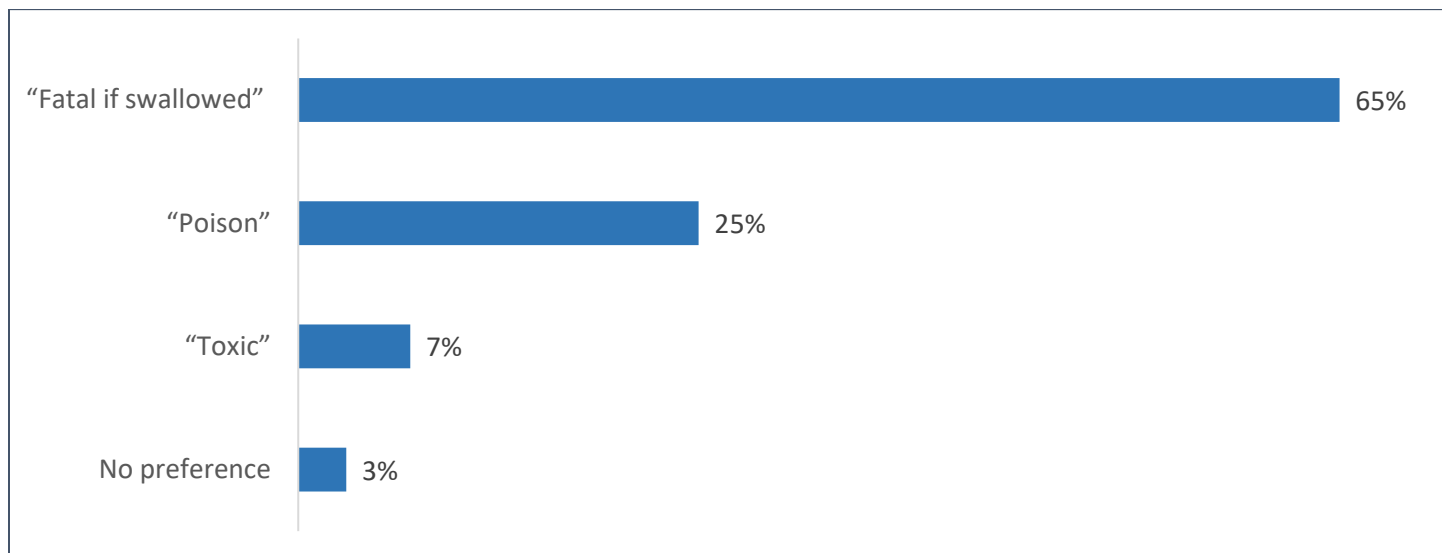
High frequency users of household chemicals were more likely than those low frequency users to believe the hazard statement “may cause reproductive harm or birth defects” is the most effective in alerting users that a household chemical may harm the ability to reproduce (59% vs 53%).

### 5.3 Effectiveness of Hazard Statements to Alert That a Household Chemical Can Cause Death

As indicated in Figure 6, when given a list of hazard statements that would alert users that a household chemical can cause death if swallowed, the hazard statement seen as most effective was “fatal if swallowed” (65%). Far fewer opted for “poison” (25%) or “toxic” (7%). Three percent had no preference.



Figure 6. Most Effective Hazard Statement to Alert That a Household Chemical Can Cause Death if Swallowed



Survey reference: Q9. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only. For a household chemical that can cause death if swallowed: Base: All respondents 2023 (n=3006).

The hazard statement "fatal if swallowed" was identified as the preferred hazard statement to alert users more often among older survey respondents. Preference was highest among Boomers (59+ years) at 68%, followed by Millennials (27-42 years) at 63% and Gen Z (18-26 years) at 61%.

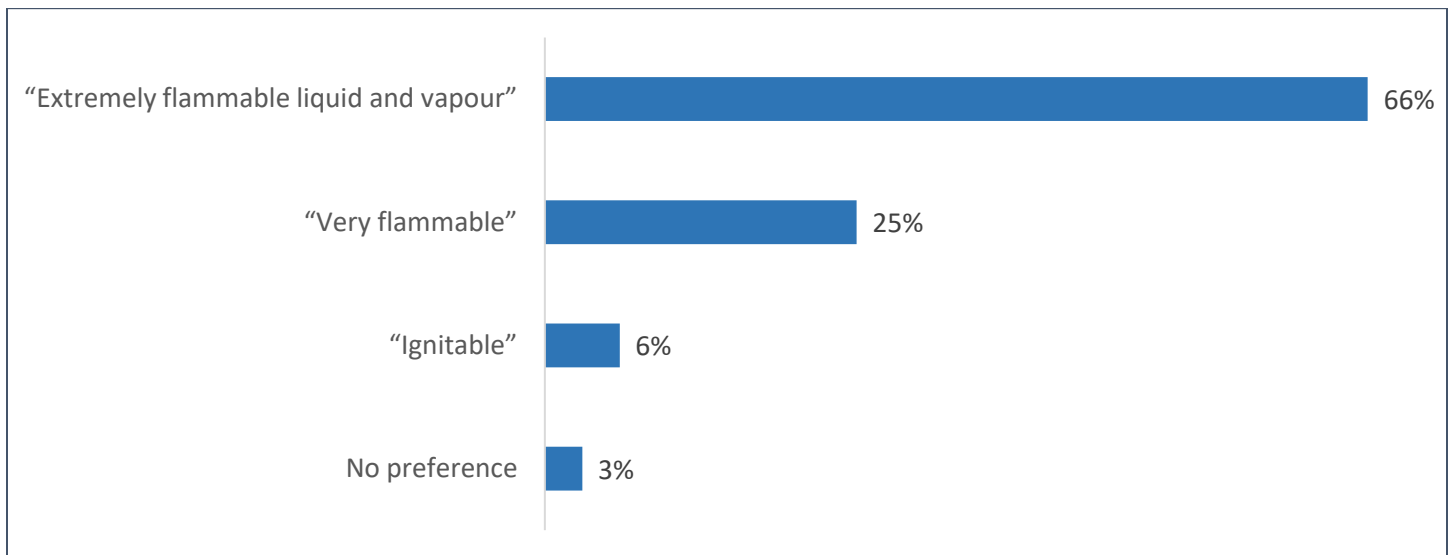
Survey respondents from Quebec were less likely than those from other regions, particularly Atlantic Canadians, to think the hazard statement "fatal if swallowed" would be most effective (50% vs 75%). In contrast, Quebec respondents were more likely than those from other regions, particularly Atlantic Canadians, to think the hazard statement "poison" would be most effective (38% vs 18%). Those who identify as white were more likely than others to view the hazard statement "fatal if swallowed" as most effective, while those who identify as Filipino were more likely than most other ethnicities to opt for the "poison" hazard statement.

Survey respondents working in agriculture (76%), business services (72%) or construction (71%) were more likely than those in high tech or computers (55%) to view that the hazard statement "fatal if swallowed" was the most effective. In contrast, those in high tech or computers (31%) or health and social services (28%) were more likely than those in business services (16%) to think the statement "poison" would be most effective.

## 5.4 Effectiveness of Hazard Statements to Alert That a Household Chemical Can Easily Catch Fire

When presented with three hazard statements that would alert users that a household chemical can easily catch fire if ignited with a flame or spark, the hazard statement viewed as most effective was "extremely flammable liquid and vapour" (66%). Smaller proportions opted for "very flammable" (25%) or "ignitable" (6%). Three percent offered no preference.

Figure 7. Most Effective Hazard Statement to Alert That a Household Chemical Can Easily Catch Fire if Ignited With a Flame or Spark



Survey reference: Q10. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only. For a household chemical that can easily catch fire if ignited with a flame or spark. Base: All respondents 2023 (n=3006).

Preference for the statement “Extremely flammable liquid and vapour”, varied by generation, region, ethnocultural identity of men, sector of work, and frequency of usage of chemicals. Preference for this statement was higher among Boomers (59+ years), Gen X (43-58 years), and Millennials (27-42 years) compared with Gen Z (18-26 years). It was also found to be higher among survey respondents who live outside Quebec compared with residents of Quebec. Preference for the hazard statement was found to be higher among White, Black, South Asian, or Chinese men compared with Latin American men.

Survey respondents working in agriculture, artistic, crafts, music or entertainment, and food, accommodation or hospitality were more likely to prefer “Extremely flammable liquid and vapour” compared with those in construction, education services and finance, insurance, or real estate. It was also more likely to be preferred among low frequency and medium frequency users of household chemicals compared with high frequency users.

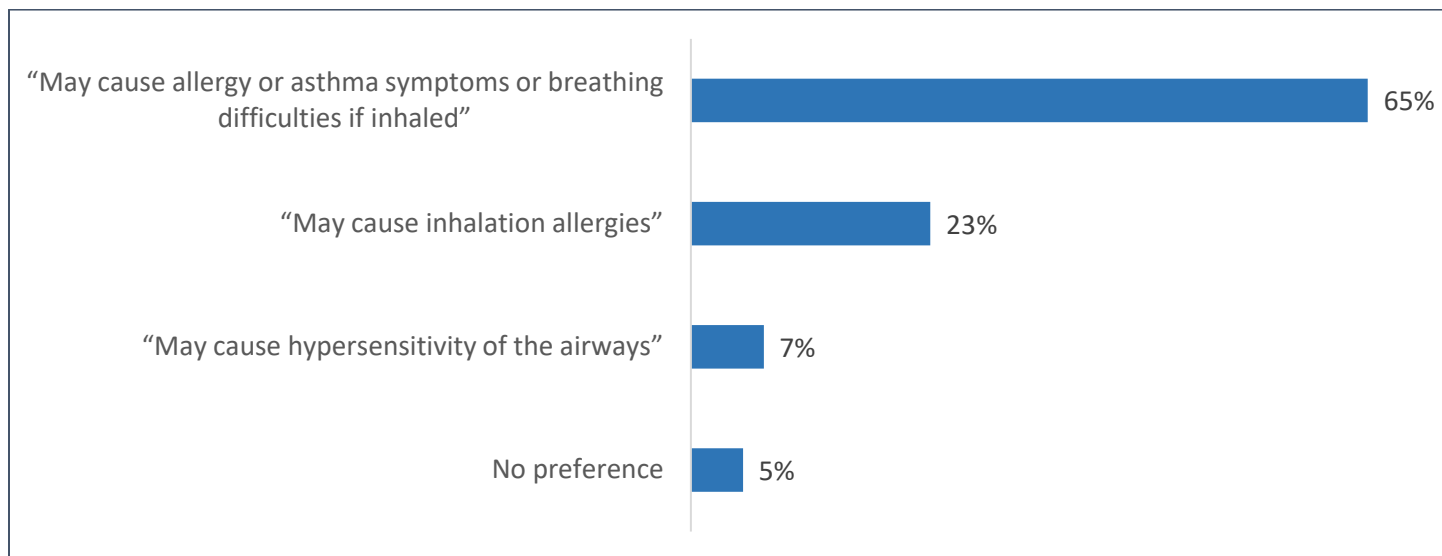
Preference for the hazard statement “Very flammable,” varied by region, sector of work and frequency of usage of household chemicals. Preference for this statement was higher among survey respondents from Quebec compared to those from the rest of Canada. It was also higher among respondents working in construction and education services compared to those working in food, accommodation, or hospitality. High frequency users of household chemicals were more likely to prefer the statement compared with medium and low frequency users.

## 5.5 Effectiveness of Hazard Statements to Alert That a Household Chemical May Cause an Allergic Reaction upon Inhalation

When given a list of hazard statements that would alert users that a household chemical may cause an allergic reaction upon inhalation, the one viewed as most effective was “may cause allergy or asthma symptoms or breathing difficulties

if inhaled” (65%). Far fewer opted for “may cause inhalation allergies” (23%) or “may cause hypersensitivity of the airways” (7%). Five percent had no preference.

Figure 8. Most Effective Hazard Statement to Alert That Household Chemical May Cause An Allergic Reaction Upon Inhalation



Survey reference: Q11. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only. For a household chemical that may cause an allergic reaction upon inhalation. Base: All respondents 2023 (n=3006).

Perceptions of the effectiveness of the statement “may cause allergy or asthma symptoms or breathing difficulties if inhaled” varied by region, ethnocultural identity of men, and frequency of usage and knowledge of household chemicals. Respondents living outside of Quebec preferred this statement significantly more than residents of Quebec. Preference for the statement was higher among White, South Asian, and Chinese men compared to Latin American men. Medium and high frequency users of household chemicals, and those with medium and high levels of knowledge of hazard symbols were more likely to prefer this statement than those with lower usage and knowledge.

Preference for the statement “may cause inhalation allergies” was higher among Latin American or Black men compared to those of White descent (41% and 35% vs. 24%). There were no significant variations based on sector of work for either of the hazard statements.

## 6. Importance of Risk/Hazard Information

### 6.1 Section Overview

Canadians surveyed ranked information about the handling, use, and storage of the product and information about the harmful chemical ingredients contained in the product as the most important to be disclosed on household chemical products, while the least important information was information about the first aid treatment if exposed to the product and information about long term health hazards. Of three cleaning product labels presented to Canadians surveyed, the labels that were seen as most effective in prompting them to read detailed information, handle the product carefully or

store the product in a safe place are the hybrid label of the CCCR, 2001 and the GHS (42%) or the full GHS label (37%) (see Glossary of Symbols and Labels).

Canadians surveyed would find it useful if the safety information displayed on a household chemical product was also available on the company’s website. Majorities across all demographic and regional subgroups would find this useful. In addition to the safety information provided on the label for a poisonous household chemical, Canadians surveyed were most likely to support the addition of a national toll-free phone number for poison centres (1-844-POISON-X) (82%) or instructions on how to dispose a product safely (77%). Far fewer want to see concentration values for hazardous ingredients (40%).

## 6.2 Ranking of Importance of Safety Information Disclosed on Household Chemical Products

As shown in Table 8, Canadians were asked to rank the level of importance of five items with “1” being the most important and “5” being the least important, with respect to safety information disclosed on household chemical products. According to survey respondents, the most important information was about how to safely handle, use, and store the product, and information about the harmful chemical ingredients contained in the product, while the least important information was the first aid treatment if exposed to the product and information about the long-term hazards.

Three in ten respondents (28%) each rated information about how to handle, use, and store the product safely and information about harmful chemical ingredients contained in the product as most important. Slightly fewer (24%) rated information about short term hazards as most important. One in ten rated information about the first aid treatment that should be done if exposed to the product (11%) and information about long term hazards (10%) as most important.

*Table 8. Ranking of Importance of Safety Information with Respect to Information Disclosure on Household Chemical Products*

Ranking	Information about how to handle, use, and store the product safely	Information about harmful chemical ingredients contained in the product	Information about short term hazards (i.e., hazards that can cause death or severe injuries immediately or shortly after exposure)	Information about the first aid treatment that should be done if exposed to the product	Information about long term hazards (i.e., hazards that may cause a health effect such as cancer with repeated long-term use)
<b>Most Important</b>	<b>28%</b>	<b>28%</b>	<b>24%</b>	<b>11%</b>	<b>10%</b>
2	22%	18%	21%	20%	20%
3	16%	20%	22%	23%	20%
4	18%	14%	25%	20%	23%
<b>Least Important</b>	<b>16%</b>	<b>21%</b>	<b>9%</b>	<b>27%</b>	<b>27%</b>

Survey reference: Q12. Rank the level of importance of the following items (with “1” being the most important and “5” being the least important), with respect to safety information disclosed on household chemical products. Base: All respondents 2023 (n=3006).

Women surveyed were more likely than men to rate information about how to safely handle, use, and store the product

as most important (30% vs. 26%). Information about how to safely handle, use, and store the product was found to be more important to survey respondents demonstrating greater knowledge of the hazard symbols surveyed compared with those with lower levels of knowledge (31% high level of knowledge vs. 26% low level of knowledge). This view was also more common among those in manufacturing (35%) compared with those in sales (24%) or transport or utilities (22%).

Differences in opinions were found between women based on their ethnocultural background. Filipino (36%), Black (36%) and White (28%) women surveyed were more likely than Chinese (17%) or South Asian (16%) women to think information about harmful chemical ingredients contained in the product is most important. Among men, Latin American survey respondents (41%) were more likely than White (25%), Black (22%), or South Asian (19%) men to think information about short term hazards is most important.

In terms of sector of work differences, information about how to safely handle, use, and store the product was found to be more important to those in working finance, insurance, or real estate (30%), high tech or computers (28%), transport or utilities (28%), business services (27%), or construction (27%) compared with those working in artistic, crafts, music, or entertainment (12%).

The belief that information about the first aid treatment that should be done if exposed to the product is most important was higher among Filipino (21%) and Latin American (18%) men surveyed compared to Chinese men (5%). It was also higher for low (21%), and medium (22%) frequency users of household chemicals compared with high frequency users (16%).

The perceived importance of information about long term hazards differed based on several factors including: intersectionality between gender and ethnocultural background, whether children were present in the household, sector of work and frequency of using household chemicals. In terms of the intersectionality between gender and ethnocultural background, the importance of information about long term hazards was found to be higher among Indigenous women compared with non-Indigenous women, and higher among South Asian women and Chinese women versus white women. Arab, South Asian, and Black men were more likely to rate this information as important than compared with White men.

The perceived importance of information about long term hazards was found to be higher among survey respondents with children under 12 years old living in their household compared to those with no children.

The perceived importance of information about long term hazards was found to be higher among survey respondents working in sales compared with those working in health and social services, finance, insurance or real estate and transportation, communications, or other utilities. It was also higher among high frequency users of household chemicals compared with low and medium frequency users.

### **6.3 Ranking of Label Prompting Effectiveness**

Canadians surveyed were presented with three cleaning product labels (see Glossary of Symbols and Labels) and asked to identify which is more likely to prompt them to read detailed safety information, handle the product carefully or store

the product in a safe place, and to rank them from the most likely to prompt them (“1”) to the least likely (“3”). As shown in Table 9, four in ten (42%) felt that the hybrid CCCR, 2001 and GHS label were the most likely to prompt them to take these actions. Slightly fewer, just under four in ten (37%), believed that the GHS label would be most likely to prompt, while two in ten (21%) opted for an alternate variation of the hybrid CCCR, 2001 and GHS label.

*Table 9. Ranking of the Effectiveness of Specific Labels to Prompt Users to Take Action*

Ranking	Hybrid CCCR, 2001 and GHS label	GHS label	Alternate variation of hybrid CCCR, 2001 and GHS label
<b>Most Likely</b>	<b>42%</b>	<b>37%</b>	<b>21%</b>
2 <sup>nd</sup> Most Likely	31%	27%	42%
Least Likely	27%	36%	36%

Survey reference: Q13. Of the three cleaning product labels presented below, which is more likely to prompt you to read detailed safety information, handle the product carefully or store the product in a safe place? Rank the selections from the most likely to prompt you (“1”) to the least likely (“3”). Base: All respondents 2023 (n=3006). See Glossary of Symbols and Labels.

Perceived prompting effectiveness of the hybrid CCCR, 2001 and GHS label (see Glossary of Symbols and Labels) varied based on gender, age, Indigenous identity, sector of work and frequency of household chemical usage. Perceived prompting effectiveness of this label was found to be higher among women (44%) than men (39%), and among survey respondents ages 55-64 (48%). It was also higher among non-Indigenous survey respondents (43%) compared with Indigenous respondents (31%). Perceived prompting effectiveness for this label was higher among respondents working in artistic, crafts, music, or entertainment sectors (51%) or business services (46%) compared to those working in transportation, communications, or other utilities (31%). It was also higher among low frequency (48%) and medium frequency (42%) users of household chemicals compared with high frequency users (36%).

Perceived effectiveness of the GHS label (see Glossary of Symbols and Labels) to prompt users to read detailed safety information, handle the product carefully or store the product in a safe place varied based on age and among respondents based on the intersection of geographic region and gender. Perceived prompting effectiveness of this label was found to be higher among those age 45 and older compared with younger respondents under the age of 35 years. It was also higher among men who live in Atlantic Canada, Quebec, Ontario, and Alberta compared with men in British Columbia/Territories.

Perceived effectiveness of the alternate variation of hybrid CCCR, 2001 and GHS label (see Glossary of Symbols and Labels) to prompt users to read detailed safety information, handle the product carefully or store the product in a safe place varied by age, and the presence of children in the household. Perceived prompting effectiveness of the alternate variation of hybrid CCCR, 2001 and GHS label was higher among respondents: under the age of 45 years compared to older respondents, and among those with children under 12 years living in the household, as compared to those with children aged 12-18 years or those with no children living in the household.

The perceived prompting effectiveness of the alternate variation of the hybrid CCCR, 2001 and GHS label also varied by indigenous identity, region, and ethnicity with Indigenous respondents rating the prompting effectiveness higher than non-Indigenous, and with respondents from British Columbia/Territories, Manitoba/Saskatchewan and Ontario rating it

higher than those from other regions, and with respondent from diverse ethnicities rating it higher than respondents identifying as White.

Finally, perceived prompting effectiveness for the alternate variation of the hybrid CCCR, 2001 and GHS label was also higher among respondents working in agriculture or transportation, communications or other utilities compared with those working in business services or artistic, crafts, music, or entertainment, and higher among high frequency users of household chemicals compared with low and medium frequency users.

## 6.4 Usefulness of Safety Information Being Available on a Company’s Website

In general, Canadians would find it useful if the safety information displayed on a product was also available on the company’s website. Nine in 10 (91%) of those surveyed indicated that they would find this ‘very useful’ or ‘somewhat useful’, including six in ten (59%) who thought this would be ‘very useful.’

*Table 10. Views on the Usefulness of Product Safety Information Being Made Available on a Company's Website*

Level of Usefulness	%
Very Useful	59%
Somewhat Useful	32%
Not Useful	6%
Do not know	3%
<b>Summary</b>	
Very or Somewhat Useful	91%

Survey reference: Q14. For a household chemical product, how useful would it be to you if the safety information displayed on the product was also available on the company's website? Base: All respondents 2023 (n=3006).

Majorities across all demographic and regional subgroups believed that it would be useful if the safety information displayed on a product were also available on the company’s website, but perceived usefulness was higher among younger survey respondents: 96% of Gen Z (18-26 years) compared with 88% of Boomers (59+ years).

Survey respondents with children in the household (96% of those with children <5 years, 94% with children 5-18 years) were more likely than those with no children to find this useful (90% with no children). Survey respondents with a higher level of formal education also found this idea more useful (93% for university graduates compared to 86% for survey respondents with less than a high school diploma or equivalent).

Perceptions of usefulness were also higher among survey respondents who identify as Latin American (100%), Filipino (100%), Black (98%), or South Asian (98%) compared to those who identify as Arab (90%) or White (89%).

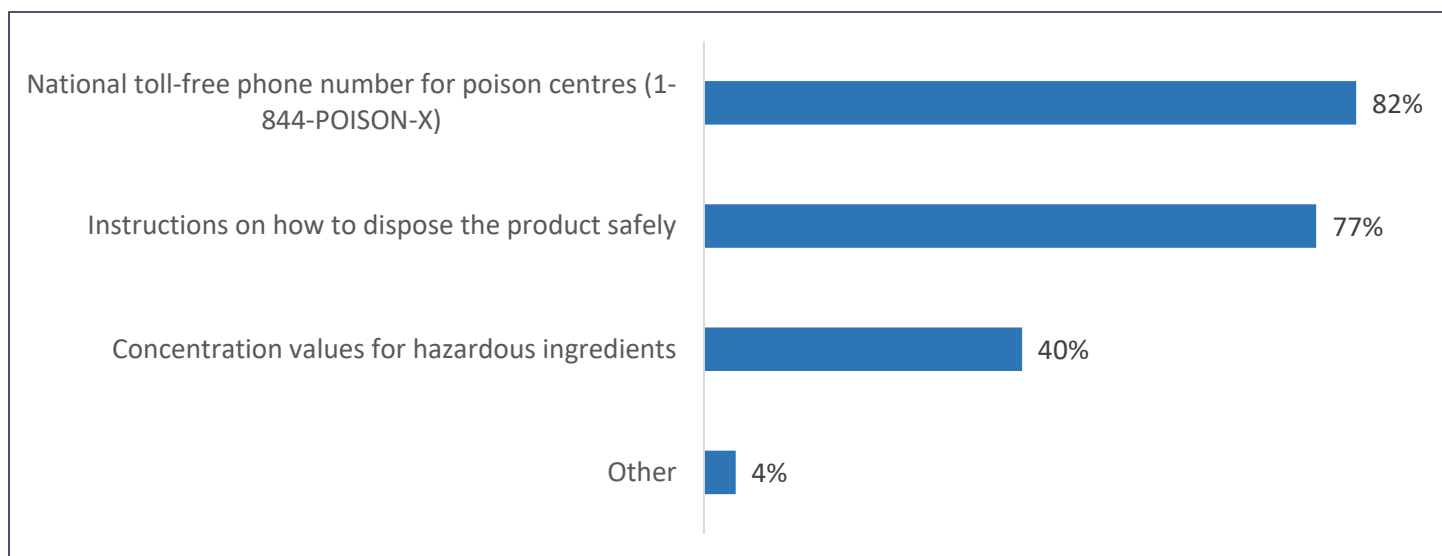
Survey respondents working in agriculture (100%), construction (96%), sales (96%) or high tech or computers (95%) were more likely than those working in transport or utilities (88%) to think this idea is useful. Finally, survey respondents

reporting high frequency usage of household chemicals (95%) were more likely than medium (90%) or low (89%) frequency users to think this idea is useful.

## 6.5 Additional Label Information

As shown in Figure 9, when shown the image of a label for a poisonous household chemical depicting safety information (see Glossary of Symbols and Labels), Canadians surveyed were far more likely to want a national toll-free phone number for poison centers (82%) or instructions on how to dispose the product safely (77%) than information on concentration values for hazardous ingredients (40%).

Figure 9. Support for Additional Information on Label of a Poisonous Household Chemical



Survey reference: Q15. The image below depicts a label for a poisonous household chemical. In addition to the safety information provided on this label, what other information would you like to see? Check all that apply. Base: All respondents 2023 (n=3006). (see Glossary of Symbols and Labels).

Support for a national toll-free phone number for poison centres to be included on a poisonous household chemical label varied by gender, age, Indigenous identity, children in the household, as well as by frequency of household chemical product usage and knowledge of certain hazard symbols. Support for a national toll-free number for poison centres on labels was higher among women (84%) than men (80%). It was also higher among Boomers (59 years +) (89%), Gen X (43-58 years) (86%) and Millennials (27-42 years) (79%) compared to Gen Z (18-26 years) (67%). Support was also higher among non-Indigenous women (85%) than Indigenous women (72%). Support was higher among respondents with no children in the household (84%) or with children aged 12-18 years (81%) compared with those with children under 5 years old (74%).

Support for a national toll-free phone number for poison centres to be included on a poisonous household chemical label was also higher among respondents with low (84%) or medium (85%) frequency usage of household chemicals than among those with high frequency usage (78%), and higher among those with high (85%) or medium (83%) knowledge of household chemicals compared with low levels of knowledge (80%).



Calls for instructions on how to dispose the product safely to be included on a poisonous household chemical label varied based on region, women with children in the household, or sector of work. Support for the inclusion of this information was higher among survey respondents living in BC/Territories (79%), Alberta (81%), Manitoba/Saskatchewan (82%), and Ontario (82%) compared to Quebec (69%). It was also higher among women with children under 5 years (85%) compared to women with no children (77%) and women with children between the years of 12-18 (76%).

Calls for concentration values for hazardous ingredients to be included on a poisonous household chemical label varied by age, ethnicity, and frequency of using household chemicals. Gen Z (18-26 years) (45%) and Millennials (27-42 years) (44%) were more interested than Boomers (59+ years) (36%). Respondents identifying as Arab (55%), Filipino (50%), Southeast Asian (50%), Chinese (48%), and Black (47%) were more interested than those identifying as White (38%). High (44%) and medium (40%) frequency users of household chemicals expressed more interest compared with low frequency users (35%).

## 6.6 Effectiveness of QR Code

Most Canadians surveyed believe a QR code on a household chemical label would be effective in disclosing information related to its safety. Six in ten (61%) think a QR code would be effective, and a further four percent do not know what a QR code is but are interested to learn about it and use it, resulting in a total of about two-thirds (64%) who indicated yes or are interested. Three in ten do not think a QR code would be effective and another five percent indicated they do not know what a QR code is and are not interested to learn about it or use it, resulting in just over one-third (36%) who indicated no or are not interested.

*Table 11. Views on the Effectiveness of QR Codes on Household Chemical Labels for Disclosing Information Related to Its Safety*

Statements	%
Yes	61%
No	31%
I do not know what a QR code is, and I'm not interested to learn about it or use it	5%
I do not know what a QR code is, but I'm interested to learn about it and use it	4%
<b>Net: Yes/Don't know but interested to learn</b>	<b>64%</b>
<b>Net: No/Don't know and not interested to learn</b>	<b>36%</b>

Survey reference: Q16. Do you think a QR code (i.e., Quick Response code) on a household chemical label would be an effective way to disclose information related to its safety? Base: All respondents 2023 (n=3006).

The perceived effectiveness of a QR code was higher among men (65%) than women (57%). It was also higher among younger survey respondents, from a high of 77% among Gen Z (18-26 years) to 60% among Gen X (43-58 years) and 47% among Boomers (59+ years). This figure was also higher among survey respondents who are Indigenous (75%) compared with non-Indigenous (60%).

Men from Atlantic Canada (47%) were less likely than men from other regions of the country to perceive the QR code as being effective, for example BC/Territories (64%), Alberta (67%), Manitoba/Saskatchewan (63%), Ontario (71%) and

Quebec (59%). Women from Manitoba/Saskatchewan (40%) were less inclined than women from other regions to think the QR code would be effective, for example BC/Territories (54%), Alberta (54%), Ontario (63%), Quebec (53%) and Atlantic Canada (64%).

Perceived effectiveness of a QR code was higher among those working in construction (77%) or food, accommodation, or hospitality (75%) compared with those in finance, insurance, or real estate (62%), high tech or computers (62%) or agriculture (53%).

Perceived effectiveness of a QR code was higher among high frequency users of household chemicals (69%) compared with medium frequency users (58%) and low frequency users (56%).

# Appendix

## Methodology

Ipsos conducted a 16-minute online survey among a nationwide sample of Canadian adults between December 8-15, 2023. In total, n=3,006 surveys were completed, including a sample boost of n=200 individuals who identify as Indigenous Peoples of Canada. The sample is a non-probability online panel sample. Ipsos partnered Canadian Viewpoint Inc. panel-based resource, (which is a diversely sourced and actively maintained panel of approximately 300,000 active panelists of Canadian adults) for data collection. The survey instrument consisted of a series of closed-ended and open-ended questions designed in consultation with the Health Canada Project Authority. An online pre-test was conducted with 20 English language completes and 16 French language completes.

The table below indicates the unweighted geographical distribution of the sample, in counts and proportions. Weighting was applied to the sample to ensure that the final data reflects the adult population of Canada by region, age, and gender according to 2021 Census data.

*Table 12. Sample Weighting*

<b>Sample Breakdown</b>	<b>Unweighted Sample Size</b>	<b>Weighted Sample Size</b>	<b>Unweighted Sample Proportions</b>	<b>Weighted Sample Proportions</b>
<b>Canada</b>	3006	3006	100%	100%
<b>Region</b>				
British Columbia/Territories	398	421	14%	14%
Alberta	340	331	11%	11%
Saskatchewan/Manitoba	222	210	7%	7%
Ontario	1134	1142	38%	38%
Québec	695	691	23%	23%
Atlantic Canada	217	210	7%	7%
<b>Gender and Age (years)</b>				
Male 18 - 24	112	174	6%	6%
Male 25 - 34	234	237	8%	8%
Male 35 - 44	246	237	8%	8%
Male 45 - 54	272	267	9%	9%
Male 55 - 64	274	268	9%	9%
Male 65 - 100	301	298	10%	10%
Female 18 - 24	152	146	5%	5%
Female 25 - 34	242	237	8%	8%
Female 35 - 44	249	238	8%	8%
Female 45 - 54	276	267	9%	9%
Female 55 - 64	275	268	9%	9%
Female 65 - 100	362	357	12%	12%
<b>Indigenous Identity</b>				
Indigenous	207	213	7%	7%

Sample Breakdown	Unweighted Sample Size	Weighted Sample Size	Unweighted Sample Proportions	Weighted Sample Proportions
Non-Indigenous	2771	2765	92%	92%

For this survey, a non-probability sample was used. Therefore, a response rate cannot be calculated.

The following table provides the case dispositions and participation rate for this online survey. The participation rate for this survey was 86.9%, and it is calculated as follows:

**Participation Rate =  $R/(R+IS+U)$ .**

*Table 13. Participation Rate Calculation*

Disposition	Baseline Survey
Invalid Cases	0
Unresolved (U)	0
In-scope non-responding (IS)	757
Responding units (R)	5027
Participation Rate	86.9%

Online survey cases can be broken down into four broad categories:

**Invalid Cases**

These can include only clearly invalid cases (for example, invitations mistakenly sent to people who did not qualify for the study, incomplete or missing email addresses in a client-supplied list).

**Unresolved (U)**

These include all the cases where it cannot be established whether the invitation was sent to an eligible or an ineligible respondent or unit (for example, when email invitations bounce back or remain without an answer before the candidate could be qualified).

**In-scope non-responding (IS)**

These include all refusals, either implicit or explicit; all non-contacts and early breakoffs of known eligible cases; and other eligible non-respondents (due to illness, leave of absence, vacation or other).

**Responding units (R)**

These include cases who have participated but who were disqualified afterwards (for example, when admissible quotas have been reached). It also includes all completed surveys or partially completed surveys that meet the criteria set by the researcher to be included in the analysis of the data.

Unresolved (U), in-scope (IS), and responding units (R) are all included in the broad category of “potentially eligible” cases. However, invalid cases are not included in the calculation of outcome rates.

For this survey a router was used to screen potential respondents and assign them to one of several surveys. Given this, it is not possible to estimate the number of cases “invited” to participate and whether they were eligible or not. Therefore, it is not possible to estimate the “unresolved” cases. For this survey, responding units is broken out as follows.

*Table 14. Survey Completions*

<b>Disposition</b>	<b>Baseline Survey</b>
Over quota	2021
Qualified Completes	3006
<b>Responding units (R)</b>	5027

The sample routing technology uses weighted randomization to assign surveys to participants. Upon entry into the system, panelists are checked to ensure they have not exceeded survey participation limits. A list of potential survey matches is determined for each panelist based upon the information we know about them. Panelists may be asked additional screening questions within the system to ensure they meet the project criteria. Priority may be given to surveys that are behind schedule; however, this is kept to a minimum as survey randomization must remain in place as a key element for preventing bias. In this case, limited prioritization was applied during the field window, therefore there is a low chance of sample bias.

## Survey Instrument

# Canadians' Perspectives on Safety Information Disclosure for Consumer Chemical Products Questionnaire

[ENGLISH]

### [INTRODUCTION]

The government of Canada is conducting a survey on safety information disclosure for consumer chemical products in Canada. The survey is being conducted by Ipsos on behalf of the Government of Canada.

This survey will take approximately 16 minutes to complete. Your participation in this survey is voluntary. All responses will be kept strictly confidential and will remain anonymous, and the information you provide will be administered according to the requirements of the [Privacy Act](#), the [Personal Information Protection and Electronic Documents Act](#), and the [Access to Information Act](#). Responses are recorded in statistical form only. This survey is registered with the Canadian Research Insights Council's (CRIC) Research Verification Service.

Click [here](#) if you wish to verify the authenticity of this survey (xxx).  
and enter the project code: 20231127-IP159

Click [here](#) if you need an alternative means of accessing the survey.

### Screening Questions

#### Age 1

In what year were you born?

#### Age 2

Would you be willing to indicate in which of the following age categories you belong?

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- 65 or older
- Prefer not to answer

## **Geographic Location**

May I have the first three digits of your postal code?

- \_\_\_\_ [the first three digits of your postal code]
- Prefer not to answer

**REGION** In which province or territory do you live? Please select one only.

- Alberta
- British Columbia
- Manitoba
- New Brunswick
- Newfoundland and Labrador
- Northwest Territories
- Nova Scotia
- Nunavut
- Ontario
- Prince Edward Island
- Quebec
- Saskatchewan
- Yukon
- Other
- Prefer not to answer

## **Gender**

What is your gender? Please select one only

*Gender refers to your current gender which may be different from sex assigned at birth and may be different from what is indicated on legal documents.*

- Female
- Male
- Other
- Prefer not to answer

### **Indigenous over-sample Q**

Do you identify as Indigenous (includes First Nations (status, non-status, treaty, or non-treaty), Inuit, Métis, Aboriginal, Native, or Indian)?

- Yes
- No
- Prefer not to answer

### **MAIN QUESTIONNAIRE**

1. For each of the following household chemical categories, please indicate how often you use them.
  - a. Household cleaning products, including chemicals for floor and window cleaning, as well as bleach
  - b. Detergents like laundry detergent or dish soap
  - c. Hobbies and crafts (e.g. adhesives, science education sets)
  - d. Paints, coatings, or stains
  - e. Automotive chemicals (e.g. brake fluid, windshield washer fluid, engine oil)

Daily

Two to five times per week

Once per week

Monthly

Rarely

2. For the following statements, please indicate to what extent you agree or disagree:

A. I read and follow safety instructions on household chemicals prior to using them.

B. Hazard symbols, like the ones below, are useful for alerting people to hazards that can cause injury or death.



D. For household chemicals that you can buy on the Canadian market, the safety information included on the label is adequate to protect your health and safety.

E. I find the current labelling of household chemicals you can buy on the Canadian market makes it easy to know when the product contains harmful chemical ingredients.

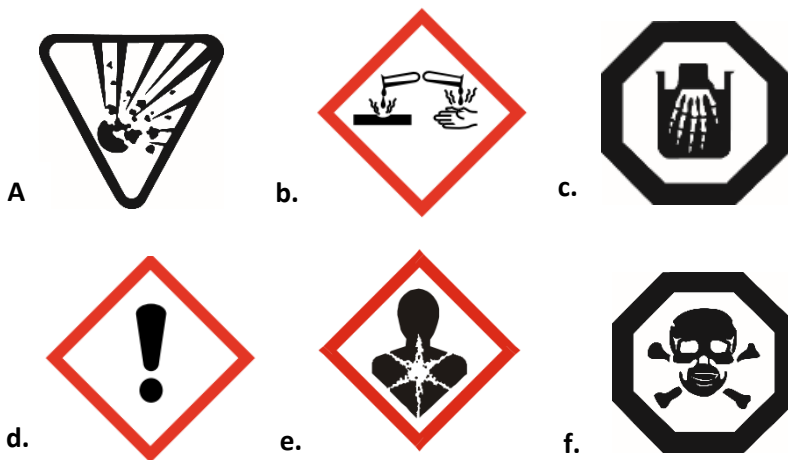
Strongly agree



Somewhat agree  
Neither agree nor disagree  
Somewhat disagree  
Strongly disagree

### ***Hazard Symbols - Knowledge***

3. Which symbol(s) represent a household chemical that is corrosive (i.e., can **cause your skin to burn or cause eye damage**)? Select all that apply.



4. With respect to household chemical labels, what do you think is the meaning of the following symbol? Select one only.



- i) General warning symbol that this is a chemical
  - ii) Symbol indicating less serious health effects may occur upon exposure (e.g., skin or eye irritation, allergic reactions)
  - iii) Symbol indicating an extreme danger (e.g., serious eye damage, highly toxic substance)
  - iv) Other, please specify:
5. With respect to household chemical labels, what do you think is the meaning of the following symbol? Select one only.



- i. Symbol indicating that health effects such as cancer may occur upon exposure
- ii. Symbol indicating that skin corrosion (e.g., burns) may occur upon exposure
- iii. Symbol indicating a biohazard (e.g., bacteria or virus causing a human health effect)
- iv. Other, please specify:

### **Hazard Symbols – Preference**

6. A) Of the two symbols presented below, which do you think better alerts a user that a gas cylinder can explode if it is heated or punctured?



c. **Neither**

B) Why do you think this symbol better alerts a user that a gas cylinder can explode if it is heated or punctured?

7. A) Of the two symbols presented below, which do you think better alerts that a household chemical is corrosive (i.e., can cause your skin to burn)?



c. **Neither**

B) Why do you think this symbol better alerts that a household chemical is corrosive (i.e., can cause your skin to burn)?

### **Hazard Statements**

8. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only.

For a household chemical that may harm the ability to reproduce:

- (a) "May damage fertility or the unborn child"
- (b) "May cause reproductive harm or birth defects"
- (c) "May damage sexual function or the offspring"
- (d) No preference

9. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only.

For a household chemical that can cause death if swallowed:

- (a) "Poison"
- (b) "Fatal if swallowed"
- (c) "Toxic"
- (d) No preference

10. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only.

For a household chemical that can easily catch fire if ignited with a flame or spark:

- (a) "Extremely flammable liquid and vapour"
- (b) "Very flammable"
- (c) "Ignitable"
- (d) No preference

11. For the statement below please select the warning that would best alert users to the hazards associated with a household chemical: Please select one only.

For a household chemical that may cause an allergic reaction upon inhalation:

- (a) "May cause inhalation allergies"
- (b) "May cause allergy or asthma symptoms or breathing difficulties if inhaled"
- (c) "May cause hypersensitivity of the airways"
- (d) No preference

### ***Importance of Risk/Hazard Information***

12. Rank the level of importance of the following items (with "1" being the most important and "5" being the least important), with respect to safety information disclosed on household chemical products:


- Information about harmful chemical ingredients contained in the product.

- Information about short term hazards (i.e., hazards that can cause death or severe injuries immediately or shortly after exposure).
- Information about long term hazards (i.e., hazards that may cause a health effect such as cancer with repeated long-term use).
- Information about how to handle, use, and store the product safely.
- Information about the first aid treatment that should be done if exposed to the product.

13. Of the three cleaning product labels presented below, which is more likely to prompt you to read detailed safety information, handle the product carefully or store the product in a safe place?  
Rank the selections from the most likely to prompt you (“1”) to the least likely (“3”)

A

Cleaning Product X




Danger

Fatal if swallowed / Mortel en cas d'ingestion  
May cause cancer / Peut provoquer le cancer

B

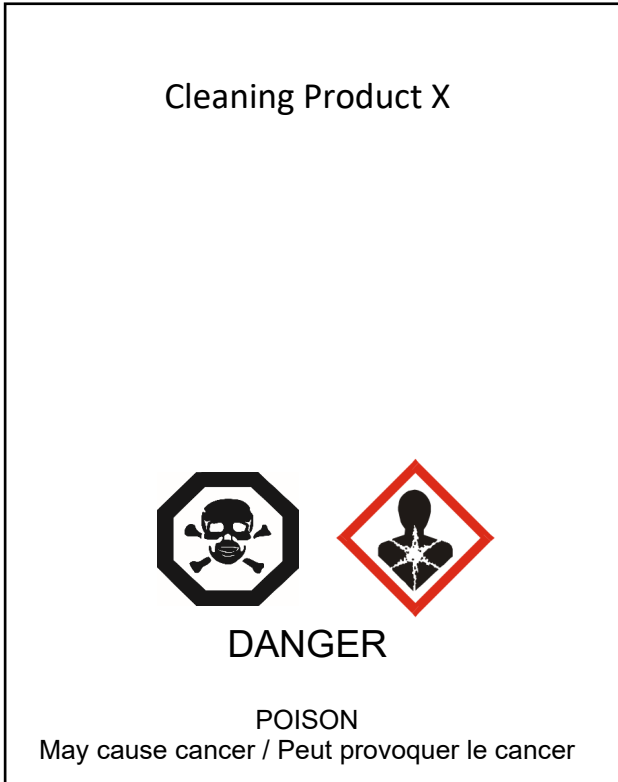
Cleaning Product X



DANGER

POISON  
May cause cancer / Peut provoquer le cancer

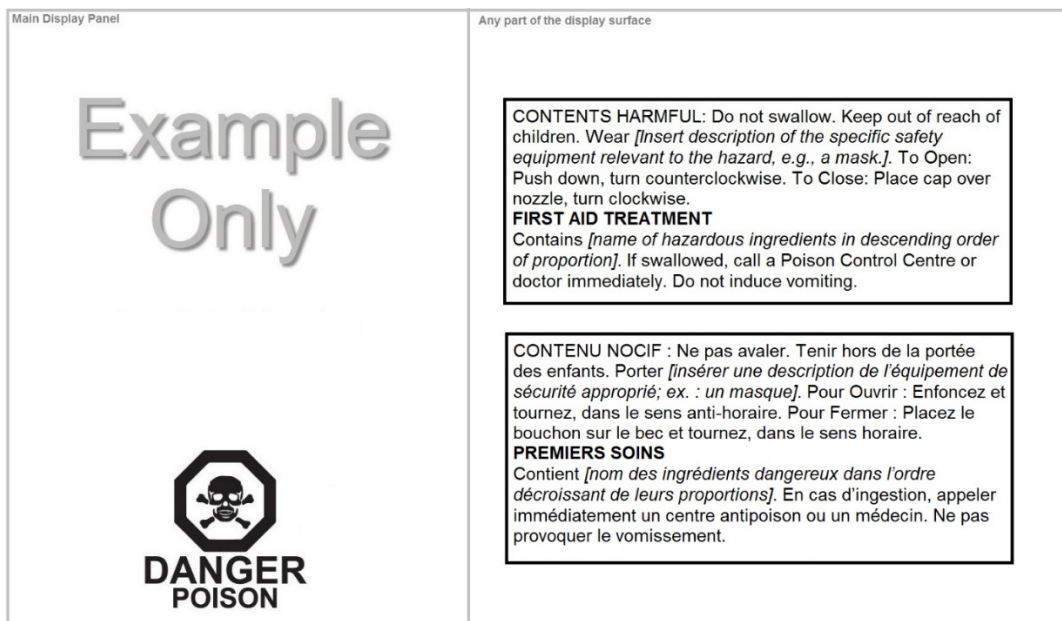
C



14. For a household chemical product, how useful would it be to you if the safety information displayed on the product was also available on the company's website?

- a. Very useful
- b. Somewhat useful
- c. Not useful
- d. Do not know

15. The image below depicts a label for a poisonous household chemical. In addition to the safety information provided on this label, what other information would you like to see? Check all that apply.



- a. National toll-free phone number for poison centres (1-844-POISON-X)
- b. Instructions on how to dispose the product safely
- c. Concentration values for hazardous ingredients
- d. Other: *Please describe in text*

16. Do you think a QR code (i.e., Quick Response code) on a household chemical label would be an effective way to disclose information related to its safety? (select one only)



- a. Yes
- b. No
- c. I do not know what a QR code is, and I'm not interested to learn about it or use it
- d. I do not know what a QR code is, but I'm interested to learn about it and use it

## Demographic Questions

17. Which of the following categories best describes your current employment status? Are you...  
Please select one only.

- Working full-time, that is, 35 or more hours per week
- Working part-time, that is, less than 35 hours per week
- Self-employed
- Unemployed, but looking for work
- A student attending school full-time
- Retired
- Not in the workforce [Full-time homemaker, unemployed, not looking for work]
- Other [Do not specify]
- Prefer not to answer

18. In what industry do you work? Please select one only.

- Agriculture
- Artistic/crafts/music/entertainment
- Business services
- Construction
- Educational services
- Finance/insurance/real estate
- Food and accommodation/hospitality
- Health and social services
- High tech/computers
- International trade
- Manufacturing
- Primary industry (not agriculture) (forestry, mining, resource extraction etc.)
- Sales
- Transportation/communications/other utilities
- Other (SPECIFY) \_\_\_\_\_

19. The following question collects information in accordance with the Employment Equity Act and its Regulations and Guidelines to support programs that promote equal opportunity for everyone to share in social, cultural, and economic life of Canada. Are you ...? Please select all that apply.

- White
- South Asian (e.g., East Indian, Pakistani, Sri Lankan)
- Chinese
- Black

- Filipino
- Arab
- Latin American
- Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai)
- West Asian (e.g., Iranian, Afghan)
- Korean
- Japanese
- Other, please specify \_\_\_\_\_
- Don't know
- Prefer not to answer

20. Do you have children in your household in any of the following age categories? Please select all that apply.

- Under 5 years of age
- 5 to under 12 years of age
- 12 to under 18 years of age
- I do not have any children
- Prefer not to answer

21. What is the highest level of formal education that you have completed? Please select one only.

- Less than a High School diploma or equivalent
- High School diploma or equivalent
- Registered Apprenticeship or other trades certificate or diploma
- College, CEGEP or other non-university certificate or diploma
- University certificate or diploma below bachelor's level
- Bachelor's degree
- Post graduate degree above bachelor's level
- Prefer not to answer

22. Which of the following best describes your total household income last year, before taxes, from all sources for all household members?

- Under \$20,000
- \$20,000 to just under \$40,000
- \$40,000 to just under \$60,000
- \$60,000 to just under \$80,000
- \$80,000 to just under \$100,000



- \$100,000 to just under \$150,000
- \$150,000 and above
- Prefer not to answer

23. What is the language you first learned at home as a child and still understand? Please select all that apply.

- English
- French
- Cree
- Inuktitut
- Mandarin
- Punjabi
- Cantonese
- Spanish
- Arabic
- Tagalog
- Persian languages
- Urdu
- Russian
- Korean
- Other
- Don't know
- Prefer not to answer

**PRETESTQ.** Did you have any difficulty answering any questions in this survey? If so, which one(s).

Yes (SPECIFY)

No

**PRETESTQ2.**

If you have any general comments about your experience of completing this survey and any improvements we can make, please write them in the box below.

(SPECIFY)

I have no general comments

That concludes the survey. This survey was conducted on behalf of Health Canada. In the coming months the report will be available from Library and Archives Canada. We thank you very much for taking the time to answer this survey, it is greatly appreciated.