

**Priority Occupational Carcinogens for Surveillance in
Canada:
Preliminary Priority List**

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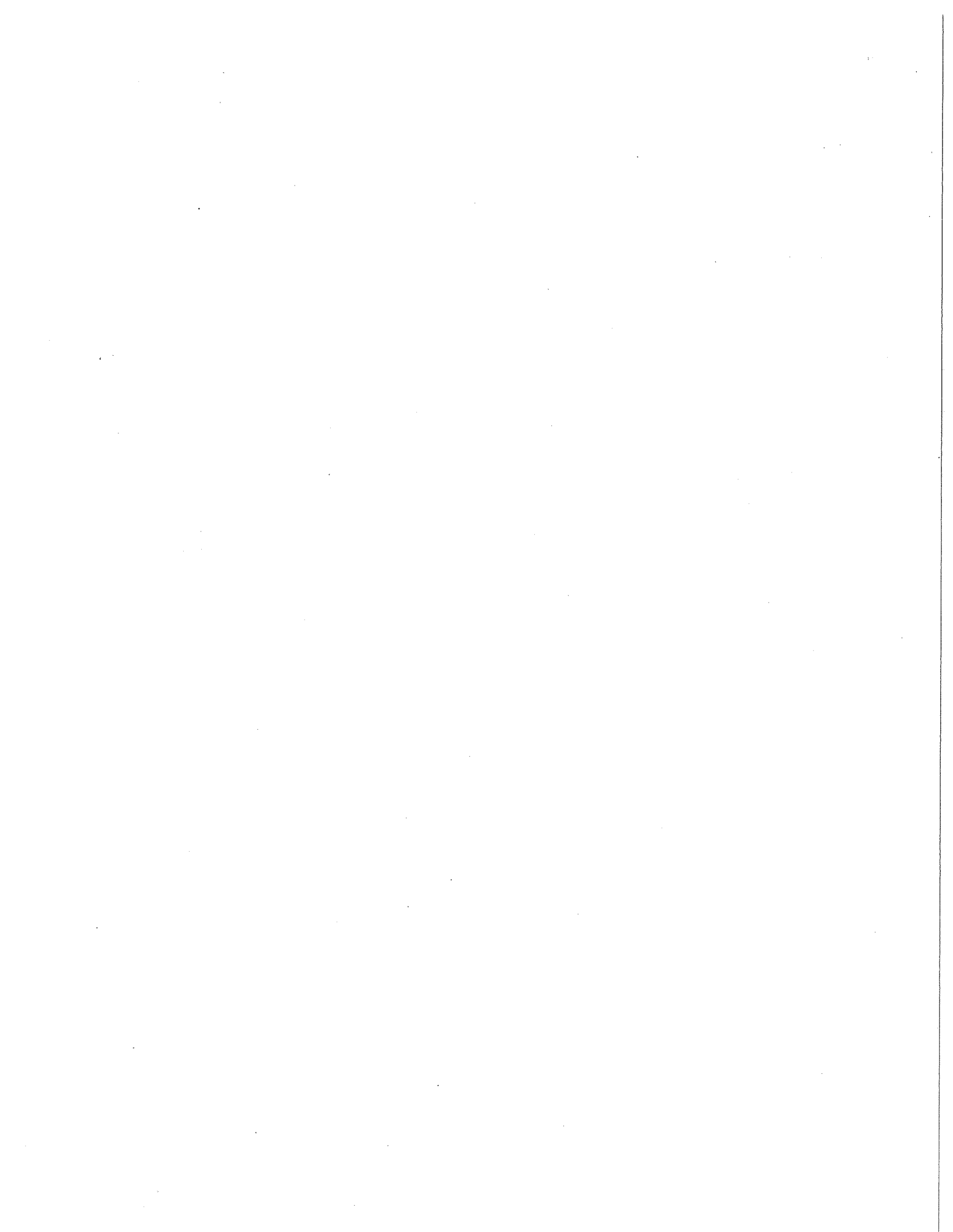
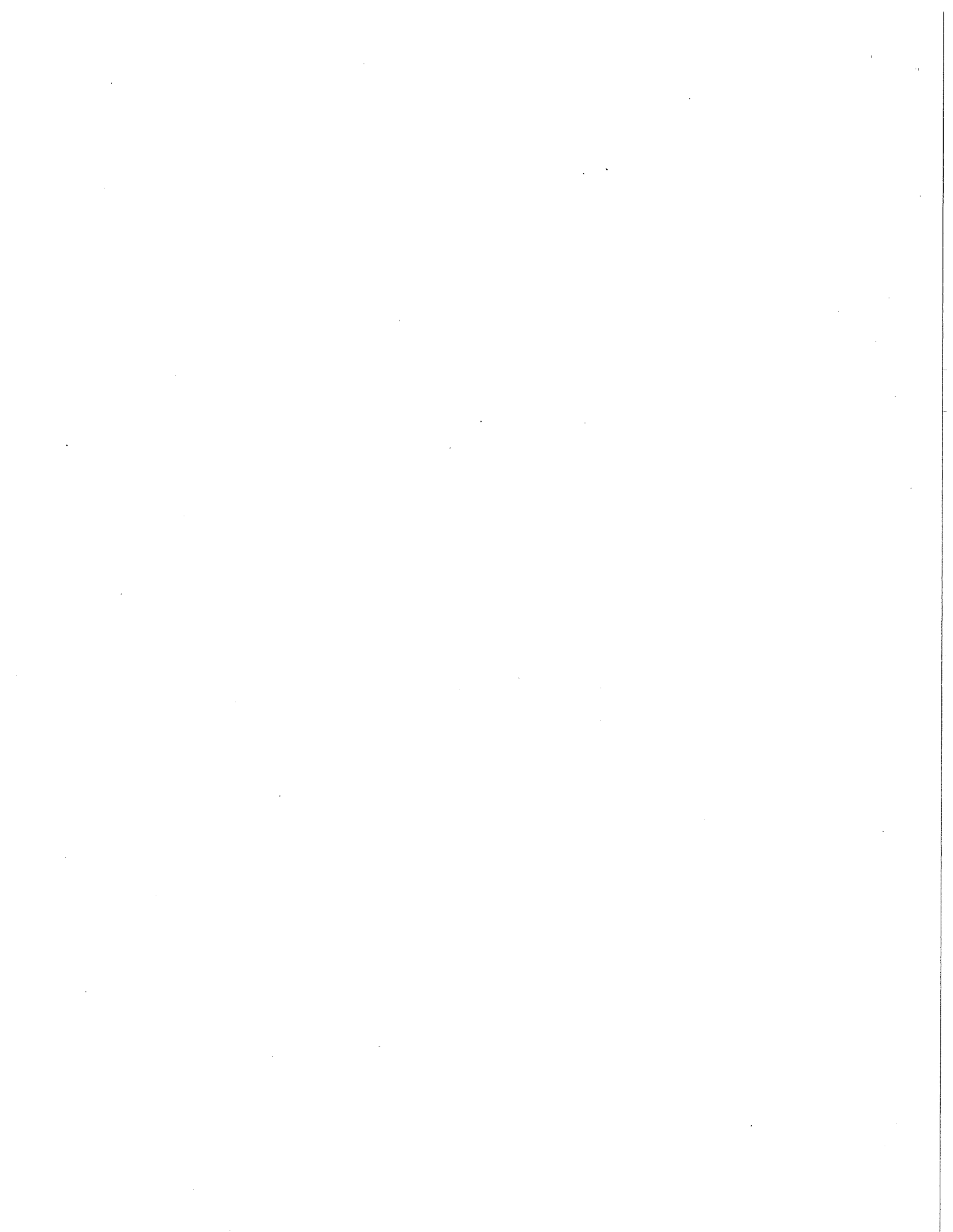


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Executive Summary

What is the purpose of this report?

The main objectives of CAREX Canada are to identify the number of Canadians exposed to workplace carcinogens, to determine at what levels potential exposure may occur, and to ascertain the extent of any geographic variations. This is an enormous task. Roughly half of the known, probable, and possible carcinogens in the International Agency for Research on Cancer's (IARC's) classifications are either principally occupational or the highest levels of exposure occur under these circumstances. In order to organize this task, a prioritization process is necessary.

How did we prioritize the carcinogens?

The prioritization exercise was undertaken in four steps:

1. Carcinogens were first broadly categorized according to their potential for human exposure *in the workplace*. If exposure were unlikely to occur in the workplace, substances were excluded from further consideration. The remaining substances were selected for critical review.
2. For substances selected for critical review, CAREX Canada staff collected key information on characteristics and overall toxicity, potential exposure circumstances, and evidence for exposure in Canadian workplaces.
3. Tables summarizing key information for each substance were then generated. Each substance was considered in light of three criteria:
 - i. carcinogenicity and other toxic properties
 - ii. prevalence of exposure in Canada, and
 - iii. feasibility of assessing exposure
4. On the basis of these criteria, substances were then placed into one of four groups:
 - A. Immediate high priority substances
 - B. Possible high priority substances
 - C. Moderate priority - further substantial investigation warranted
 - D. Low priority - no evidence of use in Canada

Some examples of the types of data sources consulted are the U.S. National Toxicology Program (NTP) Report on Carcinogens, the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles, Health Canada's categorization of the Domestic Substances List, and the Canadian Environmental Protection Act (CEPA) priority substances lists and risk assessment information. Many other specialized searches targeted at assessing the potential for use and exposure in Canada were also undertaken for each reviewed substance.

What did we find?

A total of 417 IARC known or suspected carcinogens were initially considered for inclusion. After the relevant exclusions, a total of 229 substances remained for critical review. Of the 229 substances chosen for critical review, 44 were IARC Group 1 carcinogens, 44 were IARC Group 2A carcinogens, 138 IARC Group 2B carcinogens, and 3 were mixed categories of carcinogens. When grouped on the basis of use, the 229 substances fell into the following categories: industrial chemicals (142), pesticides (27), metals (13), pharmacologic (23), fibres and dusts (8), microbiologic (3), radiation (4), hormones (4), and other (5).

