



Project Summary

Classification of Materials as Potential Sources of Indoor Air Pollution

P.W. Spaite, M.B. Stockton, and J.S. McLean

The report gives a complete classification of all materials used in the construction of, or brought inside, homes and office buildings. In the classification tables presented in the report, shaded entries are potential sources of indoor air emissions. The classification system is based on the U.S. Census of Manufacturer's Standard Industrial Codes (SICs). A comprehensive list of all products found in buildings is presented which demonstrates that materials can be classified using a uniform methodology for systematic evaluation as potential indoor air pollution sources. Other documents are planned which will include more complete information on the materials which are shown here as potential sources of indoor air emissions.

This Project Summary was developed by EPA's Air and Energy Engineering Research Laboratory, Research Triangle Park, NC, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

Introduction

This report is the first of a series planned by the U.S. Environmental Protection Agency (EPA). It presents a classification of building materials, fixtures and furnishings, and consumer products used or found in homes or offices, regardless of their potential to emit air pollutants. The purpose of this classification is to define the universe of materials and products in homes

and offices, to create an organized list of these materials and products, and to establish a nomenclature for future indoor air quality work. A subset of products are identified in this classification that are thought to represent the population of manufactured items that warrant further study as sources of indoor air pollution.

The classification system is based on the U.S. Census of Manufacturer's Standard Industrial Codes (SICs). The classification was developed by reviewing the approximately 11,000 products for which data are collected by the Census of Manufacturers to identify products used in connection with construction of or use in homes or office buildings. A cross-reference to the *Masterspec* classification used by the American Institute of Architects (AIA) is provided where applicable. A comprehensive list of all products found in buildings is presented which demonstrates that materials can be classified using a uniform methodology for systematic evaluation as potential indoor air pollution sources.

Developing the subset of materials thought to contribute to indoor air pollution demonstrates that, after organizing and categorizing materials methodically, a manageable subset of materials of concern can be identified. This subset of approximately 250 products also provides a preliminary assessment of the scope of analysis required to define the polluting potential of individual products and to assign priorities for further studies. This subset of products represents the products recommended for further study. The list was developed without locating supplemental information that could provide the basis for



decisions at this point. Rather, the purpose of the first screening was to demonstrate that products most deserving of attention can be selected with relative ease and that the number of products needing further attention is a manageable subset of the 11,000 products that make up the industrial output of the U.S. It is believed, however, that a less tentative list could be developed with additional effort and, al-

though the revised list would vary, it would not undergo great changes in scope or content.

Another document in the series would refine this classification and provide more information on the subset of materials and products thought to be potential sources of indoor air pollution deserving further study. Information on chemical constituents, usage volumes, and sources of existing

emissions and exposure data would be included. Another document, a handbook for architects, building contractors, and homeowners, would contain information on constituents, exposure, and low- or non-emitting alternatives for a selected group of commonly used materials and products presenting a significant health risk.

P. Spaite is a consultant and M. Stockton and J. McLean are with Radian Corp., Research Triangle Park, NC 27709.
James B. White is the EPA Project Officer (see below).
The complete report, entitled "Classification of Materials as Potential Sources of Indoor Air Pollution," (Order No. PB91-125708/AS; Cost: \$17.00, subject to change) will be available only from:
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Telephone: 703-487-4650
The EPA Project Officer can be contacted at:
Air and Energy Engineering Research Laboratory
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