

CARPETS AND RUGS (IAQ)**I. INTRODUCTION**

The Commission's Indoor Air Quality (IAQ) project has a number of component efforts. The study of carpet emissions is a major task in Fiscal Year 1989. The characterization of the chemicals offgassed in the home environment and possible adverse health effects that result from the exposure may lead to better manufacturing controls and recommendations to reduce possibly harmful consumer exposures.

A. Background Information

The Commission has received a number of complaints of adverse reactions to chemicals emitted from carpets and rugs in the home environment. Most of the complaints involve newly installed carpets in both new and existing homes. Other Federal agencies have received reports of employee illness after the installation of new carpeting in homes and the work place. In general, reports of occupationally related illness are outside the scope of CPSC interest.

In-depth investigations are vital to establish the credibility of the complaint by documenting the presence of chemical emissions from the carpet, rug, padding, contact adhesives, additives or treatments; by obtaining medical diagnosis where available; by obtaining copies of any laboratory reports on tests conducted; by relating the onset of symptoms to exposure to the carpet or rug for each occupant, and by reporting other product-specific details.

B. Product Description

There are many types of carpets and rugs of different materials and construction. Most of the carpets installed in consumers' homes have synthetic latex rubber used in the construction. It is thought that chemical ingredients of this rubber may be emitting a byproduct residual pollutant: 4-Phenylcyclohexene (4-PC), over time. Efforts are currently underway to measure 4-PC and other chemicals emitted from suspect carpets, rugs and padding.

C. Specific Items of Interest

1. Measurement of chemicals offgassed from carpets, rugs, padding, or adhesives.

Determine if the carpet, rug, padding, or adhesive was tested for offgassed chemicals. If so, characterize, at measured levels, the chemicals offgassed. Determine if the carpet was tested directly for the presence of various chemical components and/or an air sample was taken at the site of the carpet by a laboratory or testing firm. Obtain copies of any test results. If tests were not conducted, determine how the complainant concluded that chemicals were offgassed from the carpet, rug, padding, or adhesive.

2. Medical documentation

Some complainants report that their physicians have diagnosed these health problems as related to chemicals offgassed from carpets, rugs, padding, or adhesives used to secure carpets to flooring. In some cases, consumers have been advised to leave their homes. Verification of such medical advice is invaluable in establishing cause and effect. Obtain written permission from the complainant and, if possible, obtain appropriate hospital or physician records for medical treatment thought to be related to exposure to chemicals emitted from carpet, rugs, padding, or adhesives.

D. Headquarters Contacts

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II. INSTRUCTIONS FOR COLLECTING SPECIFIC INFORMATION

A. Synopsis

Include a brief discussion of the number of complainants who exhibit symptoms, the number of occupants who did NOT exhibit symptoms, the type of symptoms reported, and the outcome of treatment for these symptoms. Include the following key words, as appropriate, carpet, rug, padding, adhesive, type of chemical offgassed, disposition of carpet, rug, or padding, and patient disposition.

B. Description of the Incident Environment

Describe the home: i.e., single family, multi-family, apartment or mobile home and its location to nearby (within 5 miles) environmental sources of pollutants including factories, toxic waste sites, congested highways (smog), or construction sites. Determine the approximate distance to the pollutant source.

Describe other possible sources of pollutants in the home in addition to the carpet or rug and any chemicals recently applied to the carpet (i.e., shampoos, biocides, preservatives, soil-resistance, etc.). Pollutant sources may include cigarette smoking, gas cooking or heating appliances, new furnishings, urea formaldehyde foam insulation (UFFI), newly painted areas, termite or pesticide treatment, or building renovations, including particle board and plywood. If possible, relate initial exposure to these sources and onset of present symptoms.

Obtain any other information that might be helpful, such as the age of the building; the type of heating system (e.g., forced air, steam radiator, electric, etc.); the type of fuel used for heating or cooking; the type of humidifiers used in the home; the type of insulation and date installed.

Indicate whether you (the investigator) smell any odor from the carpet or rug or notice any irritating effects from the exposure.

C. Description of the Injured Person(s)
and Product Interaction

Supply information about:

1. The age, sex, height, and weight of each victim, as well as any other relevant body measurements, physical impairments (including fatigue, and alcohol or drug use), occupation, whether contact lenses are affected, and smoking history.
2. For each complainant, describe the nature, severity, frequency, and duration of symptoms. Determine if symptoms faded out over time if carpet WAS NOT removed. Determine if symptoms disappeared or decreased in severity or frequency if carpet WAS removed. In previous complaints associated with carpet and rugs, the following symptoms have been reported: inability to concentrate; headaches; nausea; burning of the

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eyes, nose, and sinus cavities; chapped lips; depression; shortness of breath; sore throat; itchy skin; irritated tongue; blurred vision; fatigue; sleepiness; allergic reactions; rashes in the face; and worsening of an arthritic condition.

3. Sensitization: probe whether affected persons react to other products such as smoke, fabrics, newsprint, cosmetics, UFFI, products containing formaldehyde or other products with similar symptoms. Outline the relevant health history of occupants.
4. Stipulate whether any factors aggravate the health problems such as heat, humidity, season of the year, time of day, or ventilation. Also list what conditions make the symptoms improve. Specifically explain any change in reaction when affected persons leave the home, and also when they are re-exposed. Note if the house was vacated because of adverse reactions to the chemicals emitted by the carpet.
5. Determine how soon after the carpet, rug or padding was installed the symptoms began to appear. Also determine how much time during the day the occupants are at home.
6. Detail the medical diagnosis and treatment. Indicate whether hospitalization was required and for what condition. Provide medical documentation of diagnosis and medical treatment. This is especially important if a physician linked symptoms to chemicals offgassed from carpets, rugs, padding, or adhesives.

D. Description of the Product

1. Describe the type of carpet or rug and padding; the date installed; the approximate dimensions of floor space in cubic feet; the quantity installed (e.g., 9' X 12'); the manufacturer; brand name; color; construction; and lot number; and specific location in the home. (You may have to contact the dealer for that information.)

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2. Determine if the carpet was tackless or glued down to the floor. If glued, describe the type of glue or adhesive used to secure the carpet to the flooring. (You may have to contact the installer for this information.)
3. Describe any carpet additives or treatments including shampoos, biocides, preservatives, soil-resistance, etc.
4. If possible, contact the wholesaler or retailer to learn when the carpet or rug was purchased from the manufacturer and under what conditions of airing it was stored.
5. Determine whether the consumer received any warning that the product would, or might, produce an odor. If so, provide a copy of written material or substance of oral information.
6. List all sources of help contacted by the complainant and the outcome.
7. Describe any remedies attempted to alleviate the problem and their degree of success.

NOTE: If complainants want measurements taken; refer them to state or local health departments or commercial testing labs.

E. Product Safety Standards

There are currently no mandatory or voluntary product safety standards for the offgassing of chemicals from carpets or rugs.

III. INSTRUCTIONS FOR PHOTOGRAPHING AND/OR DIAGRAMING
FACTORS RELATED TO THE INVESTIGATION

Photograph or diagram the room(s) in which the carpet or rug was installed. Photograph any labels or any identification of the manufacturer of the carpet or rug.

IV. INSTRUCTIONS FOR OBTAINING SAMPLES AND DOCUMENTS
RELATED TO THE INVESTIGATION

Unless otherwise instructed, DO NOT obtain a sample of the suspect carpet, rug, or padding.

Obtain any reports of medical documentation.

Obtain the name, address, and phone number of agency or lab that conducted tests, and copies of the test protocols and Results.

DATA RECORD SHEET

Instructions for Collecting Specific Information

A.1. Symptoms and Treatment

Now, could you please briefly describe for me the number and age of all persons) exhibiting any symptoms, the type of symptoms reported, and the outcome of treatment for these symptoms. In addition, please describe those individuals who did NOT have any symptoms. (In previous reports, the following symptoms were reported: inability to concentrate; headaches; nausea; burning of the eyes, nose, and sinus cavities; chapped lips; depression; shortness of breath; sore throat; itchy skin; irritated tongue; blurred vision; fatigue; sleepiness; allergic reactions; rashes on the face and body; and worsening of an arthritic condition.)

[INTERVIEWER: Use space as appropriate.]

Person #1: _____

Age and Sex: _____

Symptoms: _____

Treatment: _____

Person #2: _____

Age and Sex: _____

Symptoms: _____

Treatment: _____

Person #3: _____

Age and Sex: _____

Symptoms: _____

Treatment: _____