

<b>University of Pittsburgh Safety Manual</b>	<b>EH&amp;S Guideline Number: 04-008</b>	
Subject: <b>CARCINOGENS</b>	Effective Date 03/03/10	Page 1 of 1

## GUIDELINES FOR WORKING WITH CARCINOGENS

Cancer-causing agents are known as carcinogens. According to the latest National Toxicology Program listing there are 58 “known” human carcinogens and 188 substances “reasonably anticipated” to be human carcinogens. PIs and laboratory supervisors must take precautions to prevent carcinogen exposures to personnel and to prevent releases of carcinogens to the environment. This guideline promotes the safe use of carcinogens through the recognition, evaluation and control of exposures in all laboratories at the University of Pittsburgh.

### 1. Recognition:

- 1.1 Laboratory supervisors and PIs must identify chemical carcinogens in their protocols and chemical inventories. When chemical carcinogens are recognized, distinctive labeling shall be used to identify the hazards associated with the material.
- 1.2 Personnel should be trained on associated techniques for safely handling and storing carcinogens.

### 2. Evaluation: Personal exposures to any hazardous chemicals, including carcinogens, are dependent on the:

- quantity,
- concentration in air or in solutions,
- duration of exposure,
- physical or chemical properties,
- potential for exposure via inhalation, ingestion or skin absorption.
- availability and use of feasible control measures.

Each of these points must be considered prior to use of a carcinogen.

### 3. Control of carcinogen exposure should always follow this hierarchy:

- 3.1 Engineering controls (such as chemical fume hoods, local exhausts or scavenger systems) are highly recommended and are the most effective controls of carcinogen exposure.
- 3.2 Administrative controls, including written procedures for carcinogen use and disposal, substitution of less hazardous substances and reduced carcinogen quantities, are less effective but still warranted.
- 3.3 Personnel protective equipment (PPE) including lab coats, gloves, aprons, eye and face protection are the last line of defense, but are still necessary to reduce the risk of exposure in most instances.

More information on carcinogens available at:

<http://ntp.niehs.nih.gov>

[www.iarc.fr](http://www.iarc.fr)

[www.cancer.org](http://www.cancer.org)

[www.cdc.gov/niosh/topics/cancer](http://www.cdc.gov/niosh/topics/cancer)