



Chemical Fact Sheet

Carcinogens—Generic Safety Fact Sheet



A carcinogen commonly describes any material that can initiate or speed the growth of malignant or potentially malignant tumors. Materials such as diethylnitrosamine, monocrotaline, nitrogen mustard, and 5-azacytidine are known or suspected carcinogens. If a Material Safety Data Sheet (MSDS) for a substance lists it as a known or potential carcinogen, special handling procedures must be followed as specified in the MSDS. These materials are very toxic, and may have other mutagenic or teratogenic properties. Use of known or suspected carcinogens must be conducted wearing proper personal protective equipment (PPE), including a laboratory coat, chemical resistant gloves, and safety glasses. In addition, any work with these materials must be conducted in a chemical fume hood or hard-ducted biosafety cabinet.

Personnel working with carcinogens must wash their hands and arms with soap and water immediately after handling the material. Decontamination procedures vary depending on the material being handled. The toxicity of some materials can be neutralized with other reagents. All surfaces should be wiped down with an appropriate cleaning agent following dispensing or handling. Waste materials generated during the use of carcinogens should be treated as a hazardous waste and disposal should be coordinated through your satellite accumulation area (SAA).

Training

Only individuals who have received proper training may use carcinogens or suspected carcinogens at the Harvard Institutes of Medicine (HIM) and New Research Building (NRB). The training shall include reading this data sheet, understanding the chemical's MSDS, and receiving appropriate instruction from supervisors on laboratory procedures.

Risks associated with the use of known or suspected carcinogens

- They may cause cancer or have potentially mutagenic or teratogenic effects.

The Following Practices Must Be Followed Within Laboratories Using Known or Suspected Carcinogens

- Provide job-specific training to staff.
- Provide appropriate U.S. Occupational Safety and Health Administration (OSHA) chemical hygiene plan (CHP) training for all work processes.
- Potential exposure to these chemicals should be minimized with engineering controls such as a chemical fume hood and proper chemical handling.
- Limit access to work areas with hazardous chemicals by designating one area for the usage of these materials.
- Do not eat, drink, smoke, chew gum, apply cosmetics, or lip balm in laboratory areas, ever.
- Wear appropriate PPE (laboratory coats, chemical resistant gloves, safety glasses).
- Change disposable gloves frequently.
- Wash hands after each glove removal.
- Call 617-432-1901 if there has been a chemical spill.
- Disposal of old or unused quantities of these materials should be arranged through the HIM/NRB Environmental Health & Safety (EH&S) Office. Materials that have come in contact with known or suspected carcinogens should be disposed of as hazardous waste.
- The manufacturer and the HIM/NRB EH&S Office should be consulted regarding shelf life and proper storage procedures

Also See:

- MSDS for the specific chemical
- HIM/NRB Chemical Hygiene Plan, which is available on the HIM/NRB EH&S Webpage: <http://www.himnrbehs.com/himnrbehs/chemicalSafety.asp>

For more information contact the HIM/NRB EH&S office, 617-432-2762.