Various student activities involve the use of hazardous materials, and respiratory protection is recommended for many of these situations. This document is designed to provide information on which type of respiratory protection to use in certain circumstances, how to use and maintain the unit, and to indicate limitations to the respirator. Any respiratory or related safety questions may be addressed to EH&S at 412.268.8182. The use of proper respiratory protection is a critical element (along with other personal protective equipment and training) in keeping you safe while you do your work.

For exposure to dust, mists and other particulate-type contaminants, a disposable dust mask should be worn. An example of this mask is shown to the right.

It is important to know that this type of mask does NOT protect the wearer from gases or vapors, such as from paints, solvents or resin products. These dust masks should be disposed of after eight hours of use. Additional masks are available from EH&S (contact us at the number above to request them.) We further recommend that you do not share these masks; mark your name on them to save them for later use.

There is a second type of disposable respirator, one that offers protection against nuisance (below OSHA limits) organic vapors. It is called a charcoal-lined dust mask. (It also supplies the same dust protection as the above dust mask.) The may be used in situations where there is exposure to paints, solvents and resin product gases and vapors. It is especially important that these items also be replaced after a maximum of eight hours of use. Additionally, they must be stored in a sealed container or bag when not in use. (The charcoal continues to adsorb organic vapors from the air even when no one is wearing it!) These masks are also available from EH&S, by calling the above number. And again, it is best not to share the use of this mask—write your name on your mask and keep it in your sealed bag when not using it.

While it may seem obvious, we are required to remind you that dust masks do NOT provide oxygen!

Our Mission:

Environmental Health & Safety (EH&S) is committed to providing health and safety services that protect the University community and the environment.
Many groups have purchased half-mask respirators for their own use in their shops. It is important that all persons using this respirator understand how it is used and how to maintain it properly.

**First**, it is CRITICAL that the proper cartridges for the contaminants you are using are selected and properly installed on the respirator. In the photo to the right, the cartridges are magenta and black in color. This indicates a dual cartridge appropriate for both dusts and mists, as well as organic vapors. In the event the cartridges selected do not look *exactly* like these, it *is critical to ensure* that they *indicate* that they address both dusts/mists and organic vapors. (They should indicate “P100” and “OV” on the cartridge.)

If you have the wrong cartridges, you may create a situation worse that not wearing the respirator at all! Using the wrong cartridges, may cause yourself a serious exposure THINKING you are protected when you are not!

**Second**, it is CRITICAL that the respirator be properly fitted to the face of the wearer, each time it is used. EH&S offers training to student groups to demonstrate how to fit the respirator properly and how to test it before each use, to be sure it is working properly. Knowing this is especially important given that the respirators are shared among various users. Contact EH&S to set up training for respirators.

**Third**, just like the charcoal-lined dust mask, it is essential that the respirator be stored in a sealed container, like a Zip-loc bag. The charcoal in the cartridges will continue to adsorb organic vapors from the air, even when the respirator is not being used. EH&S can supply bags for this purpose.

**Fourth**, given that the respirators are shared among various users, it is very important that they be clean and sanitized *before each use*. EH&S can provide sanitary wipes for this process.

**Fifth**, it is critical that the cartridges be changed after eight hours *of use*. Evaluating his need is confounded by the fact that, with multiple users, the time a unit has been worn is difficult to determine. As a back-up to this, you should change the cartridges whenever you can smell the odor of the solvents or resin through the current cartridges. This indicates that the cartridge is saturated and no longer “filtering” the contaminants.

**Finally**, please contact EH&S with any questions related to the use of the respirator, and to inquire about additional cartridges.

![Safety Reminder](image)

The use of a respirator is just one step in the process of safe handling of chemicals. Be sure that you are wearing other proper protective equipment, such as gloves and eyewear, where necessary. Refer to Fact Sheets, similar to this one, on the subjects of eyewear and gloves.