



Q&A Sheet

What is an elastomeric half-face respirator?

Elastomeric half-face respirators are reusable respirators that use special cartridges designed to filter contaminated air before it is inhaled. When there is a good seal between the respirator and the face, air is pulled through the cartridge filter and the contaminant is removed by the packing material. Air-purifying respirators are only for use in areas where oxygen in the room is at normal ambient concentrations.

For use to prevent particulates, mists, and bio-aerosols, a high efficiency particulate air filter (HEPA) cartridge is used. These are referred to as P100 cartridges (P = all particulate aerosols, 100 = 99.97% filtering efficiency level of particulates). Chemical cartridges are used against gases and vapours. Combination cartridges can be used if fumes/particulate may be present in addition to the chemical hazard.

Your local OHSE Consultant will assist you and the department with selection of the appropriate model and size.

Do I need to be fit tested?

Yes. Fit testing must be done prior to use, and annually thereafter. Another fit test may be required if:

- There is a change in respirator (e.g. brand, model, or size); or
- There are changes to the user's physical condition, such as weight loss/gain or major dental work that has affected facial shape.

In addition, all workers assigned a reusable respirator must receive training and education on the use, maintenance and limitations of the respirator. Misuse of respirators can result in sickness and health complications.

Do I need to perform a fit check every time I wear the respirator?

ELASTOMERIC RESPIRATORS

Yes. Every time the respirator is worn, a positive and negative fit check must be performed to ensure a seal has been obtained between the face and the respirator.

Do I need to be clean-shaven?

Yes. In order for the respirator to filter the air before it is inhaled, a seal must be obtained between the face and the respirator. Facial hair prevents the seal from being established.

How long will the P100 cartridges last?

These filters work much like your home furnace filter. They catch particulates, dust, and mists before you breathe them in. Breathing through the filters gets harder and harder as more particles build up on the filter. Filters must be replaced when breathing becomes difficult, or sooner, if otherwise specified by a change-out schedule (typically every 3 months).

How do I store the respirator?

When storing respirators, they must be protected against contamination, dust, heat and deformation.

After inspection and cleaning, respirators must be:

- Stored in a clean air environment in sealable plastic bags (e.g. large Ziploc™ bag).
- Respirators shall be stored in a manner that will prevent deformation of rubber or other elastomeric parts. Respirators must not be stored in an area where something may be piled on top of it.
- Readily available for use.

Additional Information

- University of Victoria OHSE Respiratory Program
- WorkSafeBC (www.worksafebc.com)
- 3M Technical Data Bulletin #150 (September 2001)
- 3M Guidelines for Cleaning, Sanitizing and Disinfecting Reusable Respirators and Powered Air Purifying Respirators (June 16, 2009)

If you require additional information, please refer to the [OHSE Respiratory Protection Program](#) online, or contact Graham Rhodes, OHSE Consultant. grhodes@uvic.ca



Cleaning and Disinfection Procedures for Reusable Elastomeric Respirators

Routine Surface Disinfection

Elastomeric respirators **MUST** be cleaned and external surfaces disinfected after each use. Immediately after doffing (taking off) your respirator, follow the cleaning procedure listed below.

1. Perform hand hygiene and put on a fresh pair of gloves.
2. Use CaviWipes™ to thoroughly clean the entire surface of the respirator including the surface of the cartridges, the surface of the facepiece, and the head straps. Avoid touching the inside of the respirator.
3. Remove gloves and perform hand hygiene prior to cleaning the inside of the respirator.
4. Wipe the inside of the respirator with alcohol (70% isopropyl) wipes or benzalkonium chloride wipes.
5. Wipe down the interior then the exterior of the respirator with a moist (warm water) lint-free towel.
6. Allow the respirator to air dry, or dry manually with a lint-free towel, prior to re-donning the respirator.

Full Disinfection and Cleaning

Elastomeric respirators should receive a full disinfection and cleaning on a regular basis. The schedule for each respirator should be based on the frequency of use and the type of procedures being carried out. A schedule for full disinfection and cleaning should be determined by the user and Supervisor in consultation with the OHSE Department Safety Consultant.

- Perform steps 1 through 4 of the *Routine Surface Disinfection* procedure listed above.
- Remove the cartridges from the respirator.
- Clean the facepiece by immersing in a warm cleaning solution (mild pH neutral soap) and scrubbing with a soft brush.
 - Do not use solvents or abrasive cleaning agents.
 - Keep the water temperature below 49 °C (120 °F).
 - Do not autoclave.
- Disinfect the facepiece by soaking it in a Virox™ solution for 4 minutes.
- Rinse thoroughly in fresh warm water.
- Air dry in a non-contaminated area with clean air, or dry manually with a lint-free towel.

Note: Elastomeric respirators may become damaged over time with prolonged or extended use of disinfecting products. The respirator must be inspected by the user following each disinfection cycle and prior to re-use.