

Cartridge Change-Out Schedule

Cartridges will be changed out per the following schedule:

At the frequency established during the hazard assessment according to the respirator cartridge change-out schedule (see table below) which is based on OSHA's standards and manufacturers' recommendations.

- If present, an end-of-service life indicator is activated;
- If chemical warning properties (i.e., smell or taste) are detected, the cartridge must be replaced immediately;













Contaminant	Change-Out Schedule
Organic vapors	Maximum 8 hours of use total (up to 200 ppm)
All cartridges for emergency use	Discard after each use
HEPA filters	Restricted breathing or visibly dirty, wet, or compromised
Filtering facepiece	Visibly dirty or contaminated
Acrylonitrile	End of shift
Ammonia	Maximum 8 hours of use total (up to 125 ppm)
Benzene	End of shift
Butadiene	Every 1, 2, or 4 hours, depending on concentration (refer to 29 CFR 1910.1051 Table 1), or end of shift
Formaldehyde	3 hours or end of shift (whichever comes first)
HCl, SO₂, Chlorine	End of shift
Methylene Chloride	Must use supplied air
Nitric Acid	Must use supplied air
Vinyl Chloride	End of shift

Questions?

Contact Environmental Health and Safety at ehs@northwestern.edu

Selecting Respirator Cartridges

Air-purifying cartridges must be matched to the contaminant of concern. Cartridges are color-coded to indicate their contaminant of concern

Color	Type of Protection
Black 	Organic vapor
White 	Acid gas
Yellow 	Organic vapor/acid gas
Green 	Ammonia/methyl amine
Olive Green 	Organic vapor/formaldehyde
Orange 	Mercury vapor/chlorine gas
Purple (Magenta) 	Dust, fumes, mists, asbestos, radionucleotides, and <u>highly-toxic</u> particulates (P100)
Black/Purple 	Organic vapor and P100 combination
White/Purple 	Acid gas and P100 combination
Yellow/Purple 	Organic vapor/acid gas and P100 combination
Green/Purple 	Ammonia/methyl amine and P100 combination
Olive Green/Purple 	Organic vapor/formaldehyde and P100 combination
Pre-filters	Use with dusts, fumes, mists, pesticides, and plants

Questions?

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