

# Respirator Selection Quick Reference Guide

In agriculture, you may encounter hazardous particles in the air while you are working. A respirator can protect you from breathing in these particles.

## To select and use the appropriate respirator:







- ✓ Identify the hazard
- ✓ Understand the hazard
- ✓ Select the appropriate respirator
- ✓ Use NIOSH approved respirators
- ✓ Have your respirator fit tested
- ✓ Do a user seal check

**NIOSH Approved:** A respirator must be certified by the National Institute for Occupational Health and Safety (NIOSH) and worn properly to provide appropriate protection. NIOSH's classification ratings describe the ability of the device to protect the wearer from dust and liquid droplets in the air.

## Disposable Respirators

Generally single use but repurposing may be appropriate in some situations.

**N95 filtering facepiece** respirators are the most common types of disposable respirators. They are used in agriculture for working with hay, handling grain, in livestock housing, with infected livestock, and while welding or shop work. They are also recommended for use when working with moldy materials. Certain types of pesticide labels will recommend the use of N95 respirators.

Disposable Respirator Examples						
<b>Uses</b>	Organic Dust, Mold, Livestock, Poultry, Hogs, Cattle, Hay, Grain, Woodworking, Pesticide Handling (refer to label), Zoonotic Disease Prevention					Welding Soldering Metal Fumes
<b>Benefits</b>	<ul style="list-style-type: none"> <li>• Least expensive</li> <li>• Easy to use</li> <li>• Durable</li> </ul>	<ul style="list-style-type: none"> <li>• Exhalation valve</li> <li>• Small face shape</li> <li>• Indiv. packaged</li> </ul>	<ul style="list-style-type: none"> <li>• Exhalation valve</li> <li>• Good for long periods of wear</li> <li>• Good for large face shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Exhalation valve</li> <li>• Good for use with oil mist</li> <li>• Good seal</li> </ul>	<ul style="list-style-type: none"> <li>• Exhalation valve</li> <li>• Good straps</li> <li>• Longer use</li> <li>• Good seal</li> <li>• 100% efficient</li> </ul>	<ul style="list-style-type: none"> <li>• Exhalation valve</li> <li>• Economical option for welders</li> <li>• Flame resistant per modified ASTM D2859</li> </ul>
<p><b>Particulate Filter Types:</b> NIOSH-approved filters are rated as N95, R95, P95, N99, R99, P99, N100, R100 or P100. The number 95, 99 or 100 (99.97%) indicates the percent NIOSH filtration efficiency. <b>N Series:</b> Used in particulate environments free of oil aerosols. <b>R Series:</b> Used for oil and non-oil particles with time use limitations specified by NIOSH. <b>P Series:</b> Used for oil and non-oil particles with time use limitations specified by manufacturer.</p> <p><b>Exhalation valves</b> are designed to improve breathability by releasing hot, humid exhaled breath quickly, helping to reduce heat build-up and moisture inside the facepiece. This can help prevent fogging of glasses. An exhalation valve can also permit the exhalation of viruses and should not be worn for protection during a pandemic.</p>						

## Non-Respirator

These mask types are not certified by NIOSH for use as a respirator and will not provide protection from occupational or agricultural hazards. They are only effective for nuisance dusts and can help prevent the spread of viruses.



# Reusable Respirators

Reusable Respirators are cost effective options that offer protection from hazardous gases, vapors, and particles found in many agricultural environments.

## Half Facepiece

Different sizes available, can add cartridges.



## Full Facepiece

Includes eye protection and provides more protection.



## Cartridge Options

<b>P100</b> Pink or White		Organic Dust, Grain, Feed, Hogs, Poultry, Welding, Mold, Woodworking, Shopwork
<b>Particulate Pre-Filter</b>		Can be used with the gas cartridges below to also filter particulates.
<b>Organic Vapor</b> Black		Pesticides, Paints Use Pre-Filter/Filter Cover
<b>Ammonia</b> Green		Anhydrous Ammonia (rescue or exit situations), Hogs, Poultry Use Pre-Filter/Filter Cover
<b>Organic Vapor Acid Gas</b> Yellow		Paints, Disinfectants, Bleach Use Pre-Filter/Filter Cover
<b>Multi Gas</b> Olive		Paints, Disinfectants, Bleach Use Pre-Filter/Filter Cover

**Remember:** Schedule times to change your cartridges based on a) the outdate on the product label, b) when it becomes difficult to breathe, or c) when you can taste or smell the hazard.

# Advanced Respirators

## Powered Air Purified Respirator (PAPR):

Use for cleaning out grain bins, working with hay, in dusty livestock buildings, shop work (grinding, cutting), power washing, pesticide handling (with cartridges if label specifies). Can be used with a beard or medical condition such as asthma, claustrophobia, heart, or lung conditions.



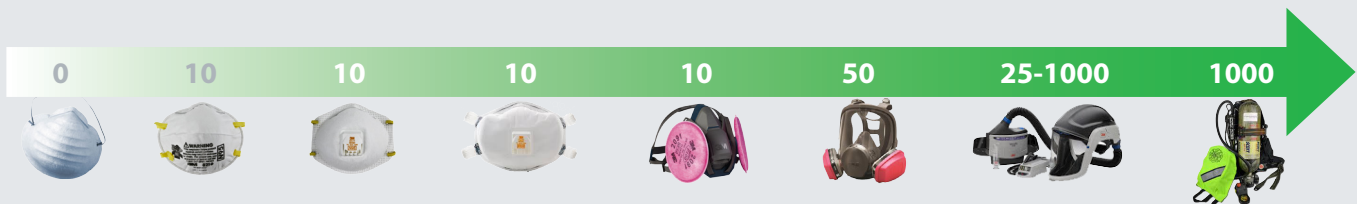
## Self Contained Breathing Apparatus (SCBA):

Use in confined spaces that may be low in oxygen such as storage bins, tankers, and manure pits with high levels of hydrogen sulfide. An SCBA should be used in situations where airborne hazards are immediately dangerous to life and health.



# Assigned Protection Factor

The assigned protection factor (APF) describes the decrease of harmful substances in inhaled air. It is used to describe how well a respirator can protect someone. The higher the number the higher the APF. The protection factor is only true if the respirator fits the wearer and is being used properly.



**Respirator Fit Test:** Everyone has a unique face size and shape. A fit test should be conducted by qualified personnel before an individual wears the respirator in a hazardous environment.

**User Seal Check:** Do not confuse a fit test with a user seal check. Once you have identified a fitting respirator, a "seal check" should be performed each time you wear the respirator to make sure it is properly on the face and adjust as needed.