

<u>Disposable Respirators Ready Reference</u>

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1. The Law

A. OSHA 1910.134 Respiratory Protection

• This regulation governs the use of respirators for any airborne contaminants that engineering controls cannot keep within acceptable limits.

B. Voluntary Use Program for Disposable Respirators

- When you have documentation to show you are under the OSHA PEL for a given dust, fume, or
 mist, you are allowed to voluntarily let your employees use NIOSH approved disposable respirators
 without a formal respiratory program and no requirement for medical evaluations or fit testing.
 However, employees are required to read Paragraph D found in OSHA 1910.134 and some would
 argue that still getting the medical evaluation helps provide some liability protection to the employer.
- Be sure to document that employees were given a copy of Appendix D and a brief understanding of the Voluntary Use Program.
- Remember, OSHA refers to all NIOSH approved disposable respirators as a dust mask and/or filtering facepiece respirator (can be confusing). Do not confuse this term with non-approved Conney dust masks or 3M fluid resistant surgical masks.

2. The Essentials

A. What Are the Basics of Disposable Respirators?

- Commonly referred to as dust masks or filtering facepieces by OSHA.
- · Generally lighter and more comfortable than half mask respirators with cartridges and filters
- · Require no cleaning or maintenance.
- Any product listed as a "Respirator" is NIOSH approved and meets OSHA compliance.
- When properly fit tested and used for the correct application, respirators provide protection to 10X the permissible exposure limit (PEL) for a given chemical dust, fume, or mist.

B. What Should I Consider When Purchasing a Disposable Respirator?

• **Sizing** – While most varieties come in a single standard size to fit most, be aware that some models are available in small to x-large.

- Nose Clip or Pre-Mold This is the primary difference between 3M and Moldex. 3M and others use a metal nose clip to seal around the nose. Moldex uses a pre-molded shell to get their fit. Some view this as more comfortable, but harder to fit test.
- Exhalation Valve Gets rid of hot/humid exhaled air easier and feels more comfortable to the user.
- Adjustable Straps To help provide a secure fit, found on many of the 3M welding respirators.
- **Sliding Straps** Also referred to as a HandyStrap and sold only by Moldex. Allows user to more comfortably hang their respirator around their neck when not in use, also has a buckle.
- Foam Nose Bridge/Foam Face Seal Depending on where the foam is, the respirator will be more comfortable and provide a better seal to the face. These models can feel too warm to some in hot work environments.
- Cake-Resistant Filter Media Used exclusively by 3M on their welding respirators to allow the filter to last longer, since welding fumes tend to plug up a filter media guickly, also flame retardant.
- Nuisance Level Charcoal Additive A thin layer of charcoal is embedded in the filter media to
 help eliminate nuisance odors of either organic vapors or acid gases. Must not exceed the OSHA
 PEL of the vapor or gas or the user would be required to have a higher level of protection.

C. What Are the Categories of Filters?

- **N-Series Filters** No Oil Use and reuse of the N-series filters is subject only to considerations of hygiene, damage, and increased breathing resistance.
- R-Series Filters Oil Resistant The R-series should only be used for one 8-hour working shift when oil is present.
- **P-Series Filters** Oil Proof Use and reuse of the P-series filters is subject only to considerations of hygiene, damage, and increased breathing resistance.
- Filter Efficiencies 100 (99.97%), 99%, and 95% These are efficiencies of filters for particulates down to a 0.3 micron particle size.
- To summarize, there are the 9 categories of filters:

N95	R95	P95
N99	R99	P99
N100	R100	P100

D. How Do I Know When the Disposable Respirator Needs to be Replaced?

When the respirator starts becoming difficult to breathe through. You will also notice the outside of
the filter getting dirty. Just because the filter is starting to become plugged up has nothing to do with
it letting any particulates get through, it only gets harder to breathe through. Believe it or not, filters
on respirators are most susceptible to some particle breakthrough when they are brand new and yet
to be breathed through.

E. Can I Use Cheaper Non-NIOSH Approved Dust Masks in My Facility?

• The only way you can use these non-approved nuisance dust masks is to have air monitoring data that proves your work area is below the OSHA PEL. If you are below the PEL, you technically do not need to wear any respirator—these masks may be handed out only for comfort from the little bit of dust that may be floating around. The one advantage of this type of mask is that since they are not NIOSH approved, you do not need a respiratory program in place for just these products. That also means you do not need to fit test the employee. You cannot make it mandatory to wear these masks, only have them available for those who wish to wear them.

F. Does a Dust Mask Need 2 Straps in Order to be NIOSH Approved?

 No. Moldex sells the EZ-ON N95 respirator which is NIOSH Approved, but only has one attachment point to the respirator. While being widely assumed that a disposable respirator must have 2 distinct straps to be NIOSH Approved, manufacturers can submit their single strap respirators for performance testing criteria that meet NIOSH requirements. The 3M 8000 is an example of a disposable N95 that has 2 straps, but they only go to one attachment point on the respirator. As long as the respirator is labeled an N95 or higher, this is all you need to know if it meets compliance with NIOSH and OSHA.

G. Will Safety or Prescription Glasses Affect the Fit of My Respirator?

- Make sure to have the disposable respirator properly fitted on your face before putting on your safety/prescription glass or goggles or the seal could be compromised.
- Various brands and sizes of disposable respirators can sit at different heights at your nose bridge.
- Various facial sizes and facial features can also determine how well you are able to wear your glasses/goggles without interference.
- You might need to experiment with various brands of goggles to see what works with a disposable or ½ mask respirator. It can be unsafe to handle certain chemicals if you are compromising the goggle to face seal.
- Some brands do come in various sizes, which might help in lowering the height at the nose bridge.

3. Product Reference

- A. Fit Test Kits Any tight fitting respirator must be fit tested unless it is for a voluntary use program (our Safety Support Team can help you select the best fit test kit option for your situation).
- B. 3M Monitor Badges If working with specific chemicals that the 3M reference guide indicates can be used for air monitoring.
- C. Written Program for Respiratory Protection (our Safety Support Team can assist with options).
- D. Safety Glasses and Goggles.

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