



# RESPIRATORY PROTECTION

## REGULATIONS

SANS 10338/2009 is a compulsory standard for SA, and any hazardous area requires use of a respirator tested against this standard. The homologation (approval) numbers are available on request. Similar regulations apply in most countries worldwide.

## COMMON DEFINITIONS

- Respirator:** A respirator seals over the face to filter the air **breathed in** to protect the lungs.  
**Mask:** A mask is worn loosely over the face to filter air **breathed out**, usually to prevent contamination of food.  
**Dust:** Dusts (or particulates) are formed when solid materials are broken down.  
**Mist:** Mists are tiny liquid droplets created when spraying.  
**Vapour:** Vapours are substances that evaporate from liquids or solids, like water vapour from water.  
**Fumes:** Fumes occur when a metal is melted, vapourised and then cooled, encountered when welding.  
**Gases:** Gases are substances that become airborne at room temperature.  
**OEL:** Occupational exposure limit, ie the concentration level above which respiratory protection is required.

## EXPLANATION OF FILTER CLASSES





Class	Explanation
<b>A</b>	Organic vapour, eg: Lacquer thinners, benzene and petrol. About 2 million compounds are known. Cartridges are marked with a brown band.
<b>B</b>	Inorganic vapour, eg: Prussic acid, chlorine & hydrogen sulphate. Not a very common hazard. Cartridges are marked with a grey band.
<b>E</b>	Acid gases, eg: hydrochloric acid gas, sulphur dioxide. Cartridges are marked with a yellow band.
<b>K</b>	Ammonia gas. Cartridges are marked with an olive green band.
<b>ABEK</b>	These are combination cartridges which offer protection against each of the classes and marked in 4 colours as above.
<b>P</b>	Particulate or dust filters, usually associated with replaceable cartridges. They do not filter chemicals, but where dust and chemicals are encountered, they are used in combination with the appropriate cartridge. Filters are marked with a white band.
<b>FF</b>	Filtering Facepiece for dusts, usually associated with one-piece respirators that do not have replaceable cartridges. There are some brands available that give light protection against chemicals where the concentration is below OEL.
<b>1, 2 or 3</b>	The number after the class describes the typical concentration level a respirator or cartridge can handle. Cartridges marked A2 would handle a higher concentration of organic vapour than say A1.

Occupational Health  
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3M was the first manufacturer to gain NIOSH certification for respirators made completely of filter material. From this base, 3M has become the leading worldwide supplier of maintenance-free, filtering facepiece respirators used by welders, foundry workers and many others. Since the AEARO acquisition in April 2008 of E-A-R™, Peltor™ and AOSafety™, 3M is now the global leader in total "neck-up", integrated PPE solutions.

Code	Description	Class	Packing & Price Breaks	Image	
<b>Maintenance-Free Respirators 3M 8000 Series</b>					
8810	Dust & Mist	FFP2	20 or 240	8810	8822
8822	Valved Dust & Mist	FFP2	10 or 240		
1860	Health Care N95 Particulate	FF2	120		
<b>3M 9000 Series Speciality</b>					
9913	Organic Vapour, Dust	FFP1	20 or 100	9914	4630 140
9914	Organic Vapour, Dust, valved	FFP1	10 or 100		
9915	Acid Gas, Dust	FFP1	20 or 100		
9925	D, M, OV, Fumes valved	FFP2	10 or 80		
9926	Acid Gas, Dust, valved	FFP2	100		
9928	D, M, AG, Fumes & Ozone valved	FFP2	80		
<b>3M9000 and K-Series Folded</b>					
9332	Folded, Dust Mist Fume valved	FFP3	10 or 120		
4630 140	K102 Folded, Dust Mist Fume	FFP2	200		

**Respirators are a must, for vapour mist or dust!**