

Identify the hazards

Industry	Application	Hazard	Recommended Protection
Construction	Painting, spraying, varnishing, coating	Solvent-based paint	A1P2
		Solvents, resins, synthetic resins	
		Latex-paint, residual solvents	
		Spray-on glue, foam, varnish, adhesive	
Metal Fabrication	Welding, metal cutting, metal pouring, soldering, brazing	Metal fumes	P2
	Welding - TIG, MIG and other	Metal fumes, ozone gas Nuisance levels of organic vapours	GP2
Agriculture	Spraying low vapour pressure*** pesticides, herbicides or fungicides	Organic vapour, mist, dust	GP2
	Mixing pesticide, herbicide or fungicide or spraying organic vapours	Organic vapour, mist, dust	A1P2
Automotive	Cleaning or using organic solvents, degreasing, paint thinners and glues	Organic vapour	A1
	Brush or roller applicaton* of 2-pack type paints	Isocyanates*	A1
Fibreglass	Laying up	Epoxy and polyester resin, amine & anhydride hardner Methy ethyl ketone peroxide (MEKP), styrene vapour	A1P2
	Using a chopper gun	Glass fibre, dust, resin and styrene vapour	
	Spray painting & cleaning moulds	Organic vapour and mist	
Maintenance	Disinfection, cleaning	Organic vapour, mist, dust	A1P2
		Organic vapour, formaldehyde, mist, dust	ABE1P2
Other	Handling:	Ammonia (NH3)**	K
		Bacteria, spores, odours	GP2
		Hydrochloric acid vapour or mist**	ABEP2
		Petroleum solvents	A2
		Sulphur dioxide **	ABE
		Sulphuric acid (H2SO4)**	P2
		Hazardous goods storage/transport	ABEKP3

* For protection from Isocyanates when spraying polyurethanes/2 pack, please contact the 3M TechAssist Helpline

** Also need to consider eye/face/skin protection

*** Low vapour pressure < 1.3Pa @ 25°C

P3 protection is only achieved on a full face respirator.

Application limits for Gas & Vapour respirators (AS/NZS1715):

- Half face respirators can be used up to 10 times the relevant Workplace Exposure Standards (WES) or up to 1000 ppm, whichever limit is reached first.

- Full face respirators can be used up to 100 times the WES with a Class 2 filter or up to 5000 ppm, whichever limit is reached first.

- A1 and A2 Cartridges are designed for use with organic vapours with a boiling point above 65°C.

- AX Cartridges are used for organic vapours with a boiling point under 65°C. Note: 3M™ AX Cartridges are single use and can only be fitted to 3M™ Full Face respirators.

This selection guide is only an outline designed to focus on products which may be appropriate for typical applications - it should not be used as the only means of selecting a product. Selection of the most appropriate personal protective equipment (PPE) will depend on the particular situation and exposure levels and should be made only by a competent person knowledgeable of the assessed risks, actual working conditions and limitations of PPE. Details regarding performance and limitations are set out on the product packaging and user information.

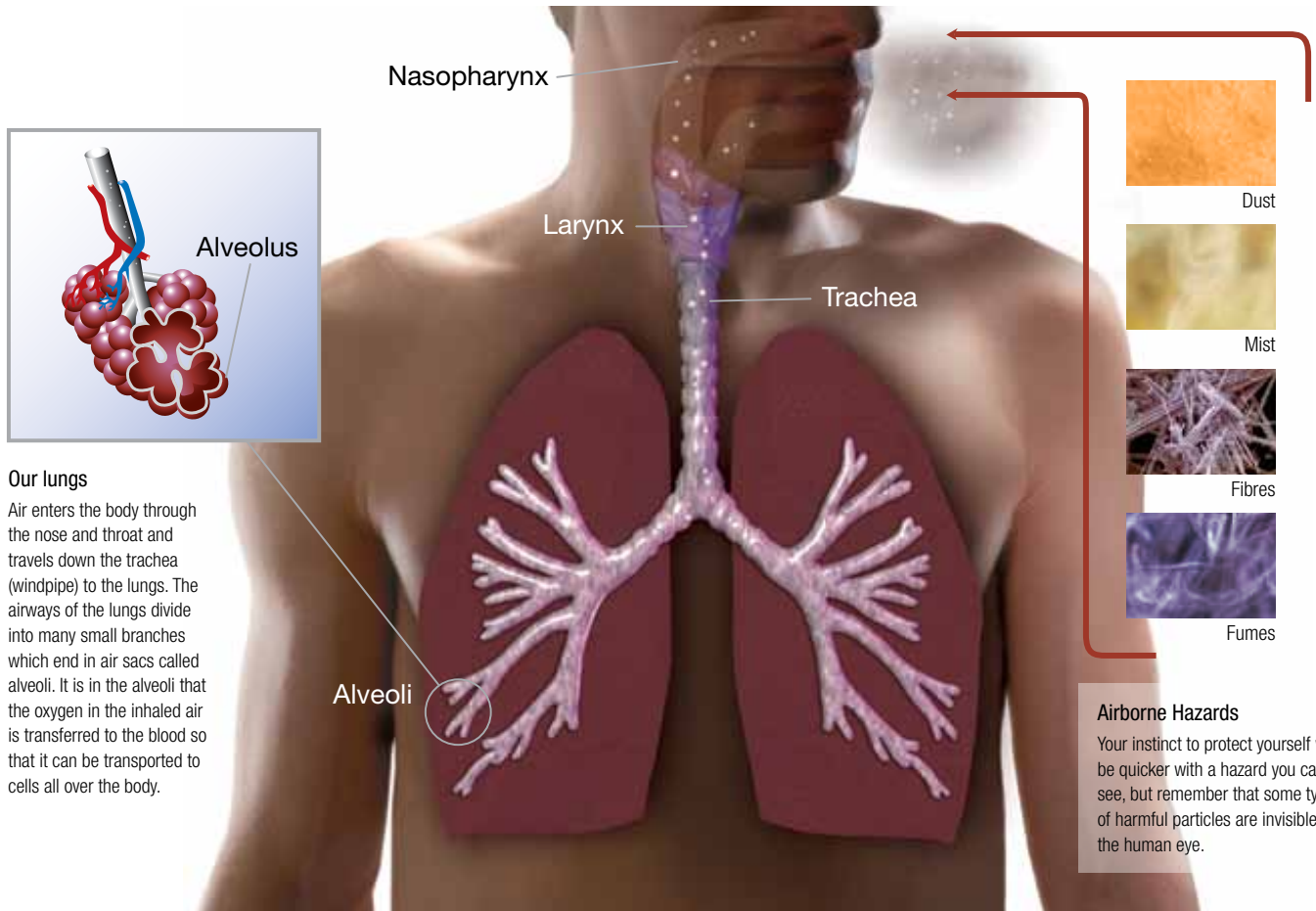


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Understanding respiratory hazards on your body

Your lungs are vital to your health – if hazardous particles reach the lungs they can damage the delicate tissue and cause illness. Your body has some natural defences against airborne particulate hazards but if the contaminant is in a large enough quantity and/or made up of very small particles, these defences may be overcome, resulting in ill health and increased risk of diseases such as occupational asthma, pulmonary fibrosis and cancer.



Our lungs

Air enters the body through the nose and throat and travels down the trachea (windpipe) to the lungs. The airways of the lungs divide into many small branches which end in air sacs called alveoli. It is in the alveoli that the oxygen in the inhaled air is transferred to the blood so that it can be transported to cells all over the body.

Airborne Hazards
Your instinct to protect yourself will be quicker with a hazard you can see, but remember that some types of harmful particles are invisible to the human eye.

Dusts	Solid particles suspended in the air as a result of the disintegration of matter. Dust may be generated by mechanical means e.g. drilling, sawing and sandblasting.
Sprays and Mists	Airborne droplets – the droplets may carry substances in solution or particles in suspension. Mists are usually formed by condensation of a vapour or by atomisation of a liquid.
Smoke	Particles of low vapour pressure suspended in the air. Smoke is made up from the solid and liquid products of combustion. Smoke particles settle slowly under gravity.
Fume	Particles forming an airborne suspension. Fuming is usually caused by the heating of a solid to such an extent that it vapourises and condenses into small particles in the surrounding air. May be termed a thermally generated particulate.
Gas	A substance which is like air – it is neither a solid or liquid at room temperature.
Vapour	The gaseous form of a substance which is solid or liquid at room temperature.



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Select the right Respirator and Cartridge / Filter

 <p>Half Face 6000 series</p>	 <p>6035 P3 2125 P2 2135 P3</p> <p>Particulate Protection</p>
 <p>Half Face 7500 series</p>	 <p>6038 P3(HF) 2128 GP2 2138 GP3</p> <p>Particulate Protection + Nuisance Level* Organic Vapour and Acid Gas</p>
 <p>Half Face 6000 series</p>	 <p>6051 A1 6057 ABE1 6055 A2 6059 ABEK1 6054 K1 6075 A1+Form</p> <p>Gas & Vapour Protection only</p>
 <p>Full Face 6000 series</p>	 <p>6051 A1 6057 ABE1 5925 P2 501 6055 A2 6059 ABEK1 5935 P3**^ 6054 K1 6075 A1+Form</p> <p>Combined Particulate + Gas & Vapour Protection</p>
 <p>Half Face 4000 series</p>	 <p>4251 A1P2 4277 ABE1P2 4255 A2P2 4279 ABEK1P2</p> <p>Combined Particulate + Gas & Vapour Protection</p> <p>Ready to use, Maintenance free</p>

* Nuisance Levels are those levels below the Workplace Exposure Standard (WES)

** P3 protection achieved only when worn with a 3M Full Face Respirator

^ Available in Australia only



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