







Personal Protective Equipment Respirator Selection Guide

All respirators must be approved by the National Institute for Occupational Safety and Health (NIOSH) or an equivalent.

		Types of Respirators											
		Air Purifying							Air Supplying				
		Disposable		Reusable Half-face and Full-face			Powered Air Purifying Respirator (PAPR)		Airline (5)	Self-contained Breathing Apparatus (SCBA)			
													
Activities/Contaminants	Hazards	Efficiency (%)			Chemical cartridges	Particulate cartridges efficiency (%)			Chemical cartridges	Particulate cartridges efficiency (%)			
		95	99	100		95	99	100					100
Particulates	Grinding, sanding, woodworking, general dust, ...	✓ (1)	✓ (1)			✓ (1)	✓ (1)						
	Lead, cadmium, arsenic, ...			✓ (1)				✓ (1)					
	Asbestos removal (7)	Class 1			✓ (1)				✓ (1)				
		Class 2							✓ (1)				
		Class 3								✓ (1)		✓	
	Welding, cutting, brazing	Welding fumes	✓	✓	✓		✓	✓	✓				
Microbials removal (4)	Mold and bacteria	✓	✓	✓		✓ (3)	✓ (3)	✓ (3)		✓ (3)			
Gases and Vapours	Solvent, organic vapour, paint, thinners, Formaldehyde, ... (8)				✓ (2)				✓ (2)		✓		
	Ammonia, acid gases, ...				✓ (9)						✓	✓	
	Autobody paint										✓		
	Confined space rescue or areas where the contaminants have not been measured	Unknown concentration of contaminants or immediately dangerous to life and health atmosphere									✓ (6)	✓	

- (1) Respirators are available in the N, R or P classes. N means no oil mist resistance; R means some oil resistance and P means oil mist resistant.
- (2) Chemical cartridges may be fitted with dust pre-filters when particulates are present.
- (3) Acid gas cartridges may be used in addition to particulate cartridges, if a bleach is used as a disinfectant.
- (4) The required protection depends on the extent of the contamination and the nature of the abatement project.
- (5) Airline systems air quality has to be tested every 6 months to ensure it meets CSA Standard CAN3-Z180.1.
- (6) Requires an emergency escape cylinder.
- (7) As described by the Code of Practice "A Code of Practice for Working with Materials Containing Asbestos in New Brunswick."
- (8) The required cartridges will differ depending on the airborne contaminants.
- (9) A full-face respirator is required at high concentrations.

This chart is to be used as a guide and represents the most common applications where respirators are used.

The respirators that are selected may vary depending on the work conditions.

Respirators should only be used where engineering controls are not possible or have failed to adequately reduce worker exposure to contaminants.

The airborne contaminants must be identified and measured before selecting the best respirator.