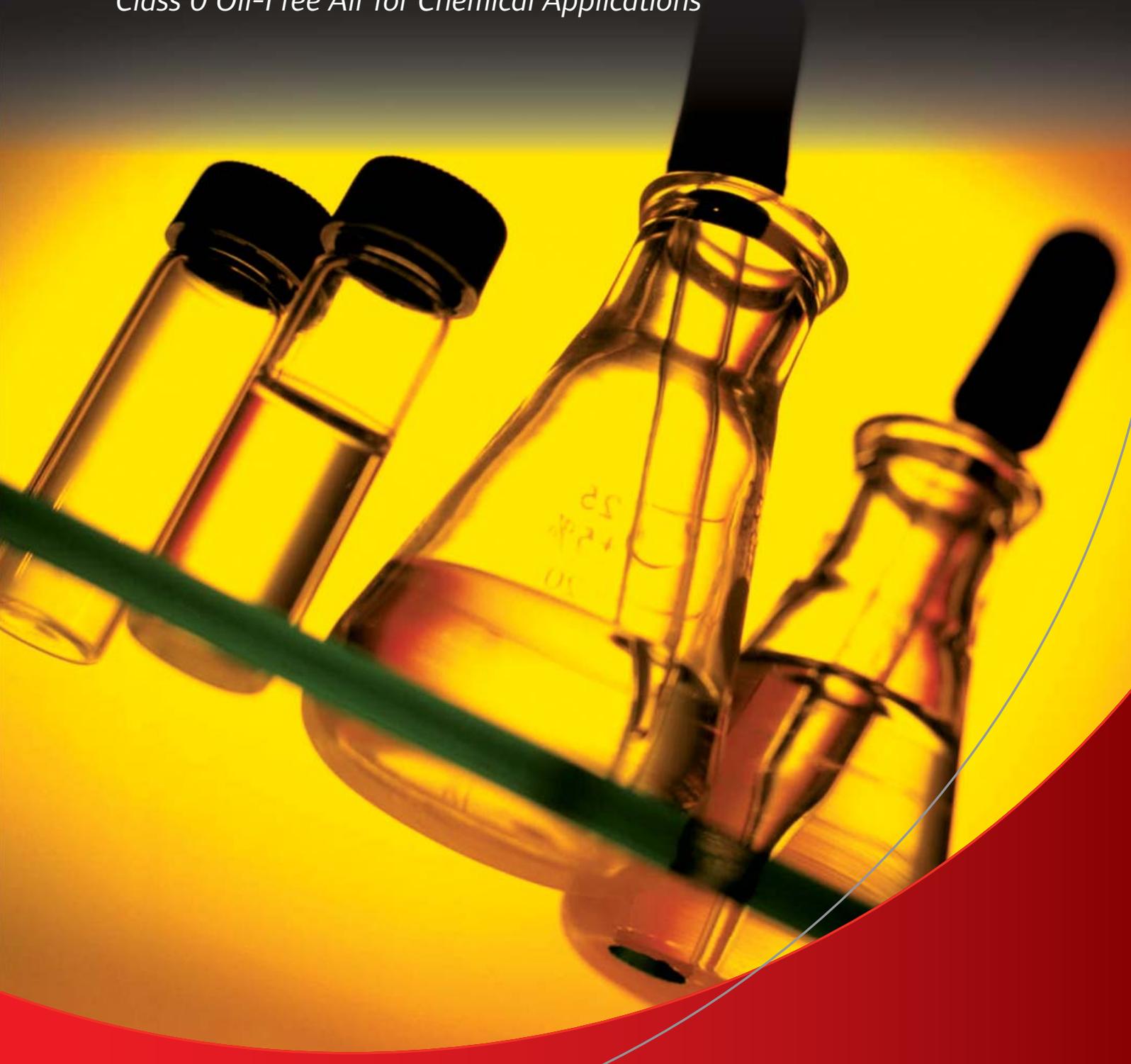


Compressed Air Quality

Class 0 Oil-Free Air for Chemical Applications



The freedom of oil-free

How pure is your air?

In 2001, the International Standards Organization (ISO) established a new class of air quality for chemical manufacturers with the highest standards. The standards were updated in 2010. Class 0 is the most stringent air quality class, limiting oil contamination in liquid, aerosol and vapor forms.

ISO 8573-1:2010 Air Quality Classes

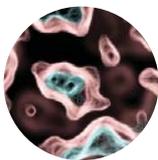
Quality Class	Solids			Water		Oil & Oil Vapor
	Max Number of Particles per m ³			Pressure Dew Point		mg/m ³
	0.1-0.5 micron	0.5-1 micron	1-5 micron	°F	°C	
0	As specified by the end-user or manufacturer, and more stringent than Class 1					
1	≤ 20,000	≤ 400	≤ 10	-100	-70	0.01
2	≤ 400,000	≤ 6,000	≤ 100	-40	-40	0.1
3	—	≤ 90,000	≤ 1,000	-4	-20	1
4	—	—	≤ 10,000	37.4	3	5
5	—	—	≤ 100,000	44.6	7	—
6	—	—	—	50	10	—



Ingersoll Rand is committed to providing 100% oil-free air.

All Ingersoll Rand oil-free technologies have earned Class 0 certification through rigorous testing by TÜV Rheinland®, a global leader in independent testing and assessment. With Ingersoll Rand, you can enjoy the peace of mind that comes with knowing your compressed air is completely free of compressor-created contaminants.

How does compressed air quality affect your production lines?



Fermentation and Aeration

Compressed air supplies oxygen to bacteria during fermentation and for oxidation. Class 0 100% oil-free air protects the bacteria from being killed by traces of oil in the air and ensures that the oxidation process is not altered by oil contamination.



Air Separation

Compressed air supplies the air for separation in PSA plants. Class 0 100% oil-free air prevents oil from being deposited on the expensive membranes used to separate the nitrogen and oxygen and ensures the separated gases are pure.



PET Production

Compressed air is used to produce and transport PET resin beads. Oil contamination in the air will contaminate the resin and affect the composition of the end product when the beads are sintered. Class 0 100% oil-free air eliminates this risk.



Pneumatic Transport and Control Systems

Compressed air is used to pneumatically transport materials such as PVC, PTA and DMT chips and to power control valves and actuators. Class 0 100% oil-free air eliminates clogging, malfunctioning and jamming due to oil contamination.

Safety in hazardous processes

Safety is a critical concern for the chemical manufacturing industry. Safety management system deficiencies, equipment failures, human error and unforeseen chemical reactions are just a few of the risks that this industry must work to mitigate on a daily basis to ensure employee and environmental safety.

Ingersoll Rand Class 0 100% oil-free air helps chemical manufacturers minimize risks associated with their compressed air systems. In hazardous processes like oxygen generation, compression and use, Class 0 air helps reduce the risk of explosion. In addition, preventing oil contamination from clogging pneumatic transportation and control systems reduces fire hazards.

