



## FIRE SERVICE BREATHING AIR SPECIFICATIONS

BREATHING AIR STANDARDS				
TRI Item No.	89	89E	67M	02M
Grade		Grade E	Grade L	Grade D
Typical Use/Application	Fire Service/SCBA: NFPA 1989 - National Fire Protection Association Standard on Breathing Air Quality for Emergency Services Respiratory Protection 2013 Edition	Fire Fighter/SCBA/Diving/SCUBA: NFPA 1989 - National Fire Protection Association Standard on Breathing Air Quality for Emergency Services Respiratory Protection 2013 Edition *and*Compressed Gas Association (CGA) G7.1-2011 Grade E Self-Contained Underwater Breathing Apparatus (SCUBA) Air	Fire Service/SCBA: Compressed Gas Association (CGA) G7.1-2011 Grade L Self-Contained Breathing Apparatus (SCBA) Air	Fire Service: Compressed Gas Association (CGA) G7.1-2011 Grade D OSHA Breathing Air
Percent Oxygen, balance is predominately nitrogen %	19.5 – 23.5	20 – 22	19.5 – 23.5	19.5 – 23.5
Carbon Monoxide (ppm)	5	5	10	10
Carbon Dioxide (ppm)	1000	1000	1000	1000
Oil (condensed) and Particulate (mg/m3 at NTP)	2	2	5 (Oil)	5 (Oil)
Nitrogen %	75 – 81	75 – 81	Not Specified	Not Specified
Total non-methane Volatile Organic Compounds ppm	25	25	Not Specified	Not Specified
Odor	No/Slight	No/Slight	None	None
Water (ppm)	24	24	24*	67*
Dewpoint °F	Not Specified	Not Specified	- 65*	- 50*
Dewpoint °C	Not Specified	Not Specified	- 54*	- 46*
Website	www.nfpa.org	www.nfpa.org & www.cganet.com	www.cganet.com	www.cganet.com

**NOTES:** \*Only applies to CGA - The water content of compressed air required for any particulate QVL can vary with the intended use from saturated to very dry. For breathing air used in conjunction with a self-contained breathing apparatus in extreme cold where moisture can condense and freeze causing the breathing apparatus to malfunction, a dew point not to exceed -65°F (24 ppm v/v) or 10°F lower than the coldest temperature expected in the area is required. If a specific water limit is required, it should be specified as a limiting concentration in ppm (v/v) or dewpoint. Dew point is expressed in °F at 1 atm abs (101 kPa, abs).