

Air Liquide America Specialty Gases LLC

Picking an EPA Protocol Gas

Offered by a dozen or so suppliers, EPA protocol gases seem to grow on trees these days. But are they all the same? Not according to EPA blind audits in which historically close to 11% of EPA protocol gases analyzed fail to match the tag values for NO, SO₂ and CO₂.

ACCURACY: EPA mandates that actual contents of a cylinder must be within 2% of what the cylinder's Certificate indicates (tag value). Calibrating your CEM with an inaccurate mixture can result in either overstating or understating your emissions. If you overstate them, you can lose out on emission trade credits. If you understate them, suffice it to say EPA takes a dim view of understating emissions.

BLENDING: Precision blending of mixtures was introduced over 20 years ago when Scott Specialty Gases invented ACUBLEND™. However "Acu-type" blending, from any vendor, is not much of a factor with EPA protocol mixtures. It's the subsequent accurate analysis that proves challenging.

ANALYSIS: It's the most critical characteristic of any protocol blend, so be sure you understand how your cylinder was analyzed. Analytical methods and data should be clearly indicated on the cylinder's certificate. Some suppliers use chromatographs instead of FTIR, which is preferable. Those who do use FTIR typically use stock models even though customized FTIR instruments provide more accurate analysis.

CERTIFICATE: A Certificate of Analysis should detail how your mixture was prepared. SCOTT™ brand mixtures are unique in that they ship with a Certificate of Accuracy, because the document exceeds EPA minimum requirements and details all preparation data necessary to validate the mixture's guaranteed accuracy. Don't lose the certificate for each cylinder on site. You must show them in the event of an audit. Using a supplier who makes cylinder certs available online can avoid misplaced documents.

TRACEABILITY: Your certificate should indicate that your mixture was prepared using standards directly traceable to either a Standard Reference Material (SRM) or a NIST-Traceable Reference Material (NTRM). There are no substitutes.

PRODUCTION SPEED: This directly impacts deliverability. The Solutions Center at Air Liquide frequently receives calls from companies unable to get a mixture from their regular supplier. So consider choosing a supplier who can routinely blend and ship a nonreactive in 10 days, and a reactive in 17 (EPA requires 7 calendar days between the first and second analysis for reactive mixtures).

EPA PGVP: As of May 27, 2011, the owner or operator of a unit subject to Part 75 emissions monitoring that uses EPA protocol gases must procure the gases from a vendor whose production site for those products is a registered participant in the EPA Protocol Gas Verification Program. Existing EPA protocol gases already on site may be used until the cylinder expiration date is reached or the cylinder pressure reaches 150 psig, whichever occurs first. Be sure to choose EPA protocol gas from a supplier with EPA PGVP registered production sites. All Air Liquide America Specialty Gases EPA protocol production sites are registered participants. Our SCOTT brand RATA Class™ and Compliance Class™ EPA products that are produced in these facilities are certified to be manufactured in strict accordance with EPA protocol requirements. For a more informative pamphlet concerning EPA's PGVP, or SCOTT brand EPA Protocol Gases, contact Air Liquide at (800) 217-2688; send e-mail to: solutions.center@airliquide.com; or visit www.ALspecialtygases.com.



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