

# CERTIFICATE

## on Product Conformity (QAL1)

Certificate No.: 0000032300

**Certified AMS:** VOC72M for benzene

**Manufacturer:** Environnement S.A.  
111 Boulevard Robespierre  
78304 Poissy cedex  
France

**Test Institute:** TÜV Rheinland Energie und Umwelt GmbH

This is to certify that the AMS has been tested  
and found to comply with:

VDI 4202-1: 2010, VDI 4203-3: 2010,  
EN 14662-3: 2005, EN 15267-1: 2009 und EN 15267-2: 2009

Certification is awarded in respect of the conditions stated in this certificate  
(also see the following pages).



- Complying with 2008/50/EC
- TUV approved
- Annual inspection

Publication in the German Federal Gazette  
(BAnz.) of 05 March 2013

German Federal Environment Agency  
Dessau, 22 March 2013

The certificate will expire on:  
04 March 2018

TÜV Rheinland Energie und Umwelt GmbH  
Cologne, 21 March 2013



i. A. Dr. Marcel Langner



ppa. Dr. Peter Wilbring

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Am Grauen Stein  
51105 Cologne

Accreditation according to EN ISO/IEC 17025 and certified according to ISO 9001:2008.

<b>Test report:</b>	936/21217807/A of 16 August 2012
<b>Initial certification:</b>	05 March 2013
<b>Date of expiry:</b>	04 March 2018
<b>Publication:</b>	BAnz AT 05 March 2013 B10, chapter IV, No. 1.1

**Approved application**

The certified AMS is suitable for continuous measurement of benzene concentrations in ambient air (stationary operation).

The suitability of the AMS for this application was assessed on the basis of a laboratory test and a threemonth field test.

The AMS is approved for the temperature range of +5 °C to +35 °C.

Any potential user should ensure, in consultation with the manufacturer, that this AMS is suitable for ambient air applications at which it will be installed.

**Basis of the certification**

This certification is based on:

- test report 936/21217807/A of 16 August 2012 of TÜV Rheinland Energie und Umwelt GmbH
- suitability announced by the German Federal Environment Agency (UBA) as the relevant body
- the on-going surveillance of the product and the manufacturing process
- publication in the German Federal Gazette: BAnz AT 05 March 2013 B10, chapter IV, No. 1.1



**AMS designation:**

VOC72M for benzene

**Manufacturer:**

Environnement S. A., Poissy, France

**Field of application:**

For the continuous measurement of benzene concentrations in ambient air (stationary operation)

**Measuring range during the suitability test:**

Component	Certification range	Unit
benzene	0 - 50	µg/m <sup>3</sup>

**Software version:**

3.0.9

**Restriction:**

The permissible temperature range at the installation site of the measuring system is 5 °C to 35 °C.

**Notes:**

1. Given the measurement method, the measuring system does not have a living zero.
2. The measuring system shall be used in a lockable measurement container.
3. The test report on performance testing is accessible on [www.qal1.de](http://www.qal1.de).

**Test report:**

TÜV Rheinland Energie und Umwelt GmbH, Cologne  
Report No.: 936/21217807/A dated 16 August 2012

**Certified product**

This certificate applies to automated measurement systems conforming to the following description:

The air Quality analyzer VOC72M is an analyzer for the measurement of volatile organic compounds. The measuring principle is based on the gaschromatographical separation of the compounds and the detection by photoionization.

The sampling is performed with a gas trap which is filled with a specific adsorbent. The default cycle is 15 minutes.

The measuring device VOC72M consists only of a single compact housing. The operation of the instrument is made via a display on the front side of the device. The user can retrieve data and device information, change parameters, and perform tests to monitor the functioning of the measuring device.

**General notes**

This certificate is based upon the equipment tested. The manufacturer is responsible for ensuring that on-going production complies with the requirements of the EN 15267. The manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management systems shall be subject to regular surveillance.

If a product of the current production does not conform to the certified product, TÜV Rheinland Energie und Umwelt GmbH must be notified at the address given on page 1.

A certification mark with an ID-Number that is specific to the certified product is presented on page 1 of this certificate. This can be applied to the product or used in publicity material for the certified product is presented on page 1 of this certificate.

This document as well as the certification mark remains property of TÜV Rheinland Energie und Umwelt GmbH. With revocation of the publication the certificate loses its validity. After the expiration of the certificate and on requests of the TÜV Rheinland Energie und Umwelt GmbH this document shall be returned and the certificate mark must not be employed anymore.

The relevant version of this certificate and the validity is also accessible on the internet: **qal1.de**.

Certification of VOC72M for benzene is based on the documents listed below and the regular, continuous monitoring of the Quality Management System of the manufacturer:

**Initial certification according to EN 15267:**

Certificate No. 0000032300: 22 March 2013

Expiration date of the certificate: 04 March 2018

Test report: 936/21217807/A dated 16 August 2012  
TÜV Rheinland Energie und Umwelt GmbH, Cologne

Publication: BAnz AT 05 March 2013 B10, chapter IV, No. 1.1  
Announcement by UBA from 12 February 2013

Standard uncertainty for the laboratory test		Device 1 SN 005	Device 2 SN 006		related concentration	
					SN 005	SN 006
Uncertainty of test gas	$u_{span}$ [ $\mu\text{g}/\text{m}^3$ ]	0,1230	0,1230	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	5,00	5,00
Lack of fit	$u_{fit}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0280	0,0200	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	5,00	5,00
Repeatability standard deviation	$u_r$ [ $\mu\text{g}/\text{m}^3$ ]	0,0200	0,0100	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	5,00	5,00
Interference of H2O	$u_{rh}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0060	0,0140	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of sample pressure	$u_p$ [ $\mu\text{g}/\text{m}^3$ ]	0,0380	0,0080	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of surrounding temperature	$u_{Ts}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0087	0,0135	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of electrical voltage	$u_v$ [ $\mu\text{g}/\text{m}^3$ ]	0,0172	0,0058	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Standard uncertainty $u_{c/c}$		<b>2,56%</b>	<b>2,50%</b>			
Expanded uncertainty $U_{c,rel}$		<b>5,11%</b>	<b>5,00%</b>			

Standard uncertainty for the field test		Device 1 SN 005	Device 2 SN 006		related concentration	
					SN 005	SN 006
Uncertainty of test gas	$u_{span}$ [ $\mu\text{g}/\text{m}^3$ ]	0,1230	0,1230	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	5,00	5,00
Lack of fit	$u_{fit}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0280	0,0200	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	5,00	5,00
Reproducibility in field	$u_{rf}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0250	0,0250	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	1,43	1,40
Interference of H2O	$u_{rh}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0060	0,0140	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of sample pressure	$u_p$ [ $\mu\text{g}/\text{m}^3$ ]	0,0380	0,0080	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of surrounding temperature	$u_{Ts}$ [ $\mu\text{g}/\text{m}^3$ ]	0,0087	0,0135	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Coefficient of electrical voltage	$u_v$ [ $\mu\text{g}/\text{m}^3$ ]	0,0172	0,0058	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Long term drift	$u_d$ [ $\mu\text{g}/\text{m}^3$ ]	0,2300	0,2500	$C_{Benz}$ [ $\mu\text{g}/\text{m}^3$ ]	35,00	35,00
Standard uncertainty $u_{c/c}$		<b>3,14%</b>	<b>3,15%</b>			
Expanded uncertainty $U_{c,rel}$		<b>6,28%</b>	<b>6,30%</b>			