

Center for physical measurements - CFM

Rep. No: **LET 20070306/H**

Laboratory for ecology in toxicology - LET

Date: 1.10. 2007

## REPORT OF MEASUREMENTS

1. Client: **NEBULUS d.o.o., ZBILJSKA CESTA 4, 1215 MEDVODE**
2. Measured object: **Smoking cabin SMOKEPOINT on location Obrtna ul. 3, HORJUL**
3. Number and date of contract: **the confirmation of the offer 4.9.2007**
4. Purpose of the measurement: **the control measurements**
5. Date of measurement: **13.9. 2007**
6. Date of previous measurements:
7. Type of measurements: **CONCENTRATION OF VOLATILE ORGANIC COMPOUNDS  
IN SPACE WITH SMOKING CABIN**
8. Sphere of activity: **/**

Measurements performed by:

A.STERMENSZKY, univ. dipl. inž. kem. teh.

UROŠ LAJEVEC, kem. teh.

Report prepared by:

A.STERMENSZKY, univ. dipl. inž. kem. teh.

Report approved by the head of LET:

dr. B. PODKRAJŠEK, univ. dipl. kem.



## 1. TASK

Company Nebulus d.o.o., Medvode, instructed the control measurements of concentrations of chemical substances, which are a result of smoking in the cabin SmokePoint. Cabin of size 129.8 x 208.3 x 254cm, fitted with a system for cleaning the air filter HEPA H13 and charcoal adsorption aired material, is for the purpose of measurements installed in a room with a volume of 48.6 m<sup>3</sup> (4 x 4.5 x 2,7m). The room is free of artificial ventilation. During the two hour measurements from one to four smokers were present in the smoking cabin. The total number of smoked cigarettes was 32. The room was at the time of sampling not ventilated, except for a moment through the door on arrival or departure of smokers. In this report, we present the results of measurements of concentration of volatile organic compounds in the area where smoking cabin was installed.

## 2. PRINCIPLE OF THE MEASUREMENTS

A measured volume of sample air is drawn through sorbent tube with activated carbon. The collected vapour is desorbed by a solvent and the solution is analysed with a gas chromatograph with FID detector HP 5890 and with Agilet 6890N equipped with mass selective detector.

## 3. RESULTS OR THE MEASUREMENTS

The concentrations of volatile organic compounds in the air of space, where smoking cabin was installed, are presented in Table I:

Table I:

<i>substance</i>	<i>Concentration (µg/m<sup>3</sup>)</i>
total volatile organic compounds (TVOC)	15
benzene	< 2
toluene	< 2
xylene	< 2

Concentrations of benzene, toluene and xylene were below the limit of the method for determining the volume of pumped air.



Report reviewed by:

dr.Boštjan Podkrajšek, univ.dipl.kem.

*The document is issued in one original copy and one copy. One copy is kept in the archives ZVD for five years.*