

DIN ISO 15767:2010-10 (E)

Workplace atmospheres - Controlling and characterizing uncertainty in weighing collected aerosols (ISO 15767:2009)

Contents	Page
National foreword	3
National Annex NA (informative) Bibliography	3
Introduction	4
1 Scope	5
2 Terms and definitions	5
3 Weight instability -- Causes and minimization	7
3.1 General	7
3.2 Moisture sorption	7
3.3 Electrostatic effects	8
3.4 Effects of volatile compounds (other than water)	8
3.5 Handling damage	8
3.6 Buoyancy changes	8
4 Correcting for weight instability by use of blanks	9
4.1 General	9
4.2 Minimum number of blanks	9
4.3 Weighing times and sequence	9
4.4 Conditioning times	9
4.5 Storage stability	9
5 Transport of collection substrates with collected aerosol samples to laboratory	10
5.1 General	10
5.2 Recommended packaging	10
6 Weighing equipment and procedure	10
6.1 The balance	10
6.2 Recommended environmental controls	11
6.3 Other equipment requirements	11
6.4 Procedure	11
7 Recommendations for the reporting of measured mass relative to LOD and LOQ	12
8 Estimation of the uncertainty of the analytical procedure of weighing aerosol collection substrates	12
8.1 Introduction	12
8.2 Within-laboratory estimated standard deviation sw obtained over an extended period	13
9 Measures to assure the validity of previously determined measurement uncertainty	13
9.1 Continued determination of within-laboratory reproducibility	13
9.2 Participation in laboratory performance proficiency testing	13
9.3 Laboratory self-check on weighing uncertainty	13
Annex A (normative) Uncertainty component in weighing collected aerosol	14
Annex B (informative) Interpretation of LOD and LOQ	18

Annex C (informative) Method evaluation example	20
Annex D (normative) Test of transportation integrity	21
Annex E (informative) Check on weighing uncertainty	22
Annex F (informative) Balance uncertainty	23
Bibliography	25