DECLARATION OF CONFORMITY

MODEL: MultiVolume Pycnometer 1305

MANUFACTURER: **MICROMERITICS INST. CORP.**
ADDRESS: **One Micromeritics Drive**
Norcross, GA 30093 U.S.A.
ISO-9001 CERTIFIED

This document certifies that the model identified above conforms to the European Union Council EMC Directive 89/336/EEC.

Applicable Standards

EN 55011	Electromagnetic conducted and radiated limits.
EN 50082-1	Immunity to conducted and radiated interference.
EN 61010-1	Safety requirements for laboratory equipment.

Other Tests FCC Part 15A Radiated emissions limits.

Name of responsible person: Graham Killip
Title: Director of Engineering

Date: _____

Signed: _____

The original signed copy of this document is kept at Micromeritics Instrument Corp. with copies of relevant test data and certificates, which constitute the required Technical File for Self Declaration.

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1.0 Introduction and Summary

1.1 Introduction

This report and the data included in it will serve as the necessary documentation needed to verify that the 1305 MultiVolume Pycnometer is in compliance with the CE directives that apply to it. The CE directives require that the instrument be inspected in four areas. These include 1) *Mains Terminal Disturbance (MTD),* 2)*Electromagnetic Radiation (EMR)*, 3) *Electromagnetic Immunity (EMI)*, and 4) *General Safety.* The components used to construct the 1305 MultiVolume Pycnometer are certified by their manufacturers to be acceptable for use within the CE directives.

1.2 Summary

The inspection conducted on the 1305 MultiVolume Pycnometer concluded that this instrument is in compliance with the applicable CE directives when installed and operated in accordance with the specifications that have been set forth by Micromeritics.

2.0 Certification by Inspection

2.1 Mains Terminal Disturbance Testing (MTD)

The 1305 MultiVolume Pycnometer uses components that have been certified by their manufacturers to be acceptable for use within the CE directives.

2.2 Electromagnetic Radiation Testing

The 1305 MultiVolume Pycnometer uses components that have been certified by their manufacturers to be acceptable for use within the CE directives.

2.3 Electromagnetic Immunity Testing

The 1305 MultiVolume Pycnometer uses components that have been certified by their manufacturers to be acceptable for use within the CE directives.

3.0 Safety Requirements

3.1 Clause 1: Scope and Object

The 1305 MultiVolume Pycnometer constitutes electrical equipment intended for professional, industrial use for measurement and test, and therefore must satisfy the safety requirement as set forth by the European Union in directive EN 61010-1:1993.

3.2 Clause 2: Normative Reference

None considered applicable beyond the scope of EN 61010-1:1993.

3.3 Clause 3: Definitions

None applicable.

3.4 Clause 4: Tests

Section 4.1 allows "*that a test may be omitted where examination of the equipment demonstrates conclusively that the equipment would pass the test".* This is the case for most of the standard. There are also sections that do not apply. Those that do apply are addressed in the following sections.

3.5 Clause 5: Marking and Documentation

5.1.2 Identification is provided on the serial number label.

5.1.3 Mains supply information is provided on the serial number label.

5.4 Documentation is provided in the instruction manual.

3.6 Clause 6: Protection Against Electric Shock

There are no "*accessible"* or *"hazardous live"* parts. There are no places that can be reached with test fingers or test pins. Protection is provided by the metal cabinet, which is connected to a "*protective conductor terminal".*

6.5 The power supply and fuses provide protection for electrical faults.

6.5.1 Protective earthing connections are provided to all the metallic parts of the instrument cabinet. The connections are via the fasteners used for assembly.

6.7 Clearances and creepage are maintained by the UL, CSA, and/or VDE approved components and by the selection of appropriate interconnections and assembly methods.

6.10.1 Micromeritics offers suitable mains supply cords, which are harmonized to ensure protection. The cords are manufactured to the standards appropriate for the destination of the instrument.

6.12 The power switch provides the normal means of interrupting power to the instrument. Additionally, the power cord can be removed from the power inlet.

3.7 Clause 7: Protection Against Mechanical Hazards

7.2 "*Moving parts shall not be able to crush, cut, or pierce parts of the body…".* There are no moving in the 1305 MultiVolume Pycnometer.

7.4 Provisions for lifting and carrying. The 1305 MultiVolume Pycnometer weighs approximately 8 Kg and is lifted and carried by two hands, placed underneath the base of the unit. These instructions are included in the operators manual.

3.8 Clause 8: Mechanical Resistance to Shock, Vibration, and Impact

The construction of the 1305 MultiVolume Pycnometer is believed to be strong enough to withstand all of the applicable tests as outlined in the applicable directive.

3.9 Clause 9: Equipment Temperature Limits

There are no hazards likely to occur during *normal operation or single fault condition* which allows heat to build up, beyond normal operating temperatures of the electronic systems. There are vent openings in the back panel for the air flow to cool the unit. All temperatures are significantly lower than the limits indicated in Table 3 of the standard.

9.6 The certified fuses and power supply protect the equipment against excessive energy being drawn from the mains.

3.10 Clause 10: Resistance to Heat

All parts covered in this section are approved by UL, CSA, TUV, and/or VDE. The approved parts are connected using UL/CSA/VDE terminals with UL/CSA wiring. (600 V, -40°C to 105 °C, PVC insulated 18 GA).

3.11 Clause 11: Resistance to Moisture and Liquids

The 1305 MultiVolume Pycnometer is designed with a top cover; therefore, a spill during normal operation is very unlikely to pose any hazard to the operator.

3.12 Clause 12: Protection Against Radiation

The 1305 MultiVolume Pycnometer produces no radiation.

3.13 Clause 13: Protection Against Liberated Gases

There are no harmful gases used or generated. There are no batteries used in this instrument. There are no high vacuum devices.

3.14 Clause 14: Components

Components associated with the safety requirements are VDE and/or TUV certified.

3.15 Clause 15: Interlocks

There are no interlocks on this instrument.