
**Cigarettes — Determination of
ammonia in cigarette mainstream
smoke using ion chromatography**

*Cigarettes — Dosage de l'ammoniac dans le courant principal de la
fumée de cigarette par chromatographie par échange d'ions*

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Foreword

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Introduction

The CORESTA Smoke Analytes Sub-Group¹⁾ conducted a survey among its members and determined that most laboratories used a method involving ion chromatography for the determination of ammonia in cigarette mainstream smoke. Two alternative trapping systems were used, either with a combination of glass fibre filter pad followed by impinger traps or with an impregnated glass fibre filter pad followed by a glass fibre filter pad.

A CORESTA recommended method (CRM) was written^[1] on the basis of the results obtained in an interlaboratory study conducted in 2015 involving 17 laboratories from 8 countries using cigarettes manufactured from a range of blend styles^[2]. The results demonstrated equivalency of the data obtained by using both trapping systems. It was observed that the method is not applicable to dark-air cured blended cigarettes.

This document is based upon the CRM 83 and includes statistical evaluations carried out according to ISO 5725-1 and ISO 5725-2.

No machine smoking regime can represent all human smoking behaviour.

- It is recommended that cigarettes also be tested under conditions of a different intensity of machine smoking than those specified in this document.
- Machine smoking testing is useful to characterize cigarette emissions for design and regulatory purposes, but communication of machine measurements to smokers can result in misunderstandings about exposure and risk across brands.
- Smoke emission data from machine measurements may be used as inputs for product hazard assessment, but they are not intended to be nor are they valid as measures of human exposure or risks. Communicating differences between products in machine measurements as differences in exposure or risk is a misuse of testing using ISO standards.

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1) Until 2017, the sub-group has been previously known as CORESTA Special Analytes Sub-Group.

