Australian Standard™

Coal and coke—Analysis and testing

Part 8.2: Coal and coke—Chlorine—High-temperature combustion method

Standards Australia

This Australian Standard was prepared by Committee MN-001, Coal and Coke. It was approved on behalf of the Council of Standards Australia on 5 August 2003 and published on 29 September 2003.

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PREFACE

This Standard was prepared by the Standards Australia Subcommittee MN-001-01, Coal Evaluation, under the direction of the Committee MN-001, Coal and Coke, as a revision of AS 1038.8.2—1996 to standardize specific technical aspects, (such as the concentration of mercury (II) oxycyanide), between this Standard and AS 1038.6.3.2, *Coal and coke—Analysis and testing,* Method 6.3.2: *Higher rank coal and coke—Ultimate analysis—Total sulfur—High-temperature combustion method* as both standard methods use similar chemical principles and reagents.

This Standard is not technically equivalent to ISO 352:1981, *Solid mineral fuels—Determination of chlorine—High temperature combustion method*. The precision data given in ISO 352 were derived using various coals from around the world and are insufficiently stringent for use by the Australian industry. An interlaboratory test program was conducted using Australian coals, leading to the very good precision values quoted in this Standard.

The objective of this Standard is to provide those responsible for the testing of coal and coke with a standardized procedure for the determination of chlorine by high temperature combustion and titration.

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1 SCOPE

This Standard sets out a method for the liberation of the chlorine from coal and coke by high-temperature combustion, and its subsequent determination by titrimetry.

NOTE: The presence of residual halogen-bearing organic float-and-sink liquids in coal samples will affect the determination of chlorine.

This Standard is applicable to coal and coke containing less than 0.3% chlorine.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS		
1038	Coal and coke—Analysis and testing	
1038.3	Part 3:	Proximate analysis of higher rank coal
1038.4	Part 4:	Coke—Proximate analysis
1038.6.1	Part 6.1:	Higher rank coal and coke—Ultimate analysis—Carbon and hydrogen
1038.6.3.2	Part 6.3.2:	Higher rank coal and coke—Ultimate analysis—Total sulfur—High-temperature combustion method
1038.16	Part 16:	Assessment and reporting of results
2243	Safety in laboratories (series)	
2418	Coal and coke—Glossary of terms	
2508	Safe storage and handling information cards (series)	
2706	Numerical values—Rounding and interpretation of limiting values	
4264	Coal and coke—Sampling	
4264.1	Part 1:	Higher rank coal—Sampling procedures
4264.2	Part 2:	Coke—Sampling procedures
BS		
1752	Laboratory sintered or fritted filters	

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2418 and that below apply.

3.1 Repeatability *(r)*

The value at or below which the absolute difference between two single test results obtained with the same method on identical test material under the same conditions (same operator, same apparatus, same laboratory and the minimum practical time consistent with separate tests) may be expected to lie with the specified probability. In the absence of other specifications, the probability is 95%.