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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 8037-2009

Replacing GB/T 8037-1987

**Benzol products of coal carbonization -- Test for presence of
mercaptans**

焦化苯类产品中硫醇的检验方法

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative references

4 Reagents and materials

4.3 Lead Asia sodium (Dr. reagent)

4.6 Cadmium chloride solution

4.8 Potassium iodide solution (KI)

Foreword

This revised standard adopts ISO 5275:2003 "Petroleum products and test methods aromatic hydrocarbon solvent and thiol sulfide Dr. test" (In English).

This standard is based on ISO 5275:2003 redrafted. For ease of comparison, the information in Appendix A lists the provisions of this national standard Standard Terms and international control list.

The standard in the use of international standards has been modified. The technical differences between a single vertical line identifies the page in terms of which they are involved Margin. In Appendix B gives a list of the technical differences and the reasons for the reference.

For ease of use, this standard also made the following editorial changes.

--- "This International Standard" by "this standard";

--- Instead of using the decimal point as a decimal point ", ". ";

--- Delete international standards foreword.

This standard replaces GB/T 8037-1987 "Test Method coking benzene products mercaptans." the main difference compared with the standard GB/T 8037-1987 as follows.

--- Increasing the "security warning", "range", "normative references" Content "results are expressed" and "Inspection Report";

--- Some units and standardized format.

This standard Annex A, Annex B is informative appendix.

The standard proposed by China Iron and Steel Association.

This standard is under the jurisdiction of the National Steel Standardization Technical Committee.

1 Scope

This standard specifies the coking benzene products in principle mercaptan test methods, reagents and materials, instruments, sampling and sample preparation, test procedures and inspection Inspection reports.

This standard applies to coking toluene and xylene and hydrogen sulfide test. Not to contain more than trace amounts of peroxide or Carbon disulfide content exceeds 0.4% (by mass) of a sample.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 1999 coking oil products sampling methods GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD) Principle 3 Sample solution was mixed with sodium oscillation sub lead, from the change in appearance of the mixed solution to determine the presence or absence, hydrogen sulfide, elemental sulfur or peroxide the presence of the substance, and the addition of sulfur sublimation oscillation after final verification whether the thiol.

4 Reagents and materials

Unless otherwise stated, from 4.2 to 4.11 should reach analytical reagents, water purity in line with GB/T 6682 in the three water requirements.

Lead acetate trihydrate 4.1 $[(CH_3COO)_2Pb \cdot 3H_2O]$, crystals.

4.2

Sodium hydroxide (NaOH), solid.

4.3 Lead Asia sodium (Dr. reagent)

25g of crystalline lead acetate trihydrate (4.1) dissolved in 200mL of distilled water, filtered and then added to 100mL contains 60g hydroxide Sodium (4.2) in aqueous solution. The mixture was heated in a boiling water bath for $30min \pm 5min$, diluted with water to 1000mL after cooling.

Use storage solution bottle with sealing plug, such as opaque solution is filtered before use.

4.4 cadmium chloride (CdCl_2).

4.5 of concentrated hydrochloric acid (HCl), mass fraction of about 36% (11mol/L).

4.6 Cadmium chloride solution

100g cadmium chloride dissolved in water (4.4), was added 10mL hydrochloric acid and dilute to 1000mL.

For routine analysis, 50g/L NaHCO_3 solution can be used for analysis, but because the sodium sulfide is colorless, with lead acetate requires Test strips to determine whether the removal of hydrogen sulfide (see 7.2).

4.7 sublimed sulfur, dried (sealed container preservation).

4.8 Potassium iodide solution (KI)

KI 100g/L solution, formulated the day before use.