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

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Determination of ignition temperature of petroleum products

石油产品自燃温度测定法

(English Translation)

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Foreword

This standard is identical with the German national standard DIN51794:2003 "Petroleum products - Determination of auto-ignition temperature" (in English).

This standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

This standard was drafted. China Research Institute of Petroleum Corp. Petrochemical, Tianjin Entry-Sinochem Institute of Chemical standardization.

Introduction

Self-ignition temperature is not constant physical and chemical fuel, but depends on the characteristics under certain circumstances the main condition factors. May be due Measurement methods to assess exposure to heat the surface of flammable liquids and gases flammability level of this standard for the establishment of appropriate electrical and non-fire resistant Security measures for electrical equipment to provide evidence.

For mixtures, in particular oil, if air enters the combustion vessel after the addition of the sample, the sample in the container from below Lower ignition temperature (measured by the standard available) may also be observed further combustion phenomenon. "After the spontaneous combustion temperature" may be lower than the measured temperature of spontaneous combustion of more than 100 °C. For security reasons, when measured after the spontaneous combustion temperature must be examined whether there is auto-ignition temperature is determined [1].

Petroleum products - Determination of auto-ignition temperature

1 Scope

This standard specifies the method for determination of flammable liquids and gases, petroleum products and mixtures between 75 °C ~ 650 °C spontaneous combustion temperature.

Auto-ignition temperature measurable combustibles in contact with hot objects, and the combustion tends to occur under conditions mixed with the air, and so on into fuel Line security classification.

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 4793.1 measurement, control and laboratory safety requirements for electrical equipment - Part 1. General requirements (GB/T 4793.1-2007, IEC 61010-1:2001, IDT)
Transfer of technical conditions DIN17470 heat conductor alloy round and flat wire
DIN51610 LPG sampling DIN51750-1 sampling method General Petroleum Products
DIN51750-2 liquid petroleum product sampling Determining and applying DINENISO 4259
Petroleum products - Test methods for precision data (DINENISO 4259-1999, ISO 4259Corr1.1993, IDT) DINISO 1773 Laboratory glassware necked flask boiling point (DINISO 1773-1999, ISO 1773:1997, IDT)

3 Terms and Definitions

The following terms and definitions apply to this standard.

Under the conditions specified in this standard, fuel begins to burn lowest temperature.

In the combustion vessel, and the mixture happened accompanied by a significant enhancement of the flame or deflagration reactions within 5min may occur.

Sample starts burning time from the sample into the container to the combustion.

NOTE: lights the fire lag from a few tenths to a few minutes, but usually less than 3min.

4 Units

Reports auto-ignition temperature of the unit. °C.

5 Summary of Method

In each combustion test, a small quantity of the sample into the opening combustible Erlenmeyer flask. The flask was heated with an electric furnace, and the heating temperature was observed in Whether the sample combustion occurs degrees. Finally, the residue in the flask blown with air vaporizable components.