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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 18294.2-2010

Technical identification methods for fire - Part 2: Thin layer chromatography analysis

火灾技术鉴定方法 第2部分：薄层色谱法

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Standardization Administration of China

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Foreword

GB/T 18294 "Fire technical appraisal method" is divided into six parts.

--- Part 1. UV spectroscopy;

--- Part 2. thin layer chromatography;

--- Part 3. gas chromatography;

--- Part 4. High performance liquid chromatography;

--- Part 5. gas chromatography - mass spectrometry;

--- Part 6. Infrared Spectroscopy. This section GB/T Part of 218,294. This section drafted in accordance with GB/T 1.1-2009 given rules. This section presents the People's Republic of China Ministry of Public Security. This part of the National Technical Committee of Standardization Technical Committee Fire Fire Investigation (SAC/TC113/SC11) centralized. This section is drafted. Tianjin Fire Research Institute of Ministry of Public Security. The main drafters of this section. Deng Zhenyu, Geng Huimin, Lu Zhi Bao Tian osmanthus, Liang Guofu. Fire technical appraisal methods Part 2. TLC

1 Scope

GB/T 18294.2-2010 is the Chinese national standard on technical identification methods for fire - part 2: thin layer chromatography analysis, in the field of environment and health protection, safety. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 14 January 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 June 2011. Classification: ICS 13.220.01, CCS C82. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself,

which is delivered complete in English translation.

This section GB/T 18294 specifies the terms and definitions fire technical appraisal in thin-layer chromatography, the test principle, test equipment, test Agents and materials, standard samples and test methods. This section applies to the identification of gasoline, kerosene, diesel oil and paint thinner and other flammable liquids and fire common combustion residues.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document. Laboratory use specifications and test methods GB/T 6682-2008 Analysis

GB/T 20162 Fire Identification evidence Extraction

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Silica gel thin layer plate thinlayerchromatographyplateofsilicagel According to different requirements evenly coated with silica gel, glass, metal or plastic sheets.

3.2 TLC thinlayerchromatographyanalysis The sample with the appropriate controls in the same TLC plate spotting, started after the color, and then compare, for performing common flammable liquid fire The method of identification and combustion residue.

3.3 Eluent developingsolvent The sample can be separated in a thin-layer board reagent.

3.4 Rf value Rfvalue TLC plate spotting spots expanded to center distance from the origin and the origin from the developing solvent ratio to the leading edge.

4 Test principle

Flammable liquids and combustion residue content after the TLC plate spotting, since the distribution coefficient of thin layer chromatography stationary phase and mobile phase varies To separation, followed by its fluorescent color, color of iodine vapor and water color, will show a certain position, size and color characteristic spots, through Had confirmed flammable liquids and combustion residues kind of comparison.