

ICS 75.160.30

CCS E 46



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

GB/T 30518-2014

**Determination of dissolved residues of liquefied petroleum
gases -- High temperature gas chromatographic method**

液化石油气中可溶性残留物的测定 高温气相色谱法

(English Translation)

Issued on: February 19, 2014

Implemented on: June 1, 2014

Issued by: Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted law revision adopts the European standard EN15470. "Determination of LPG soluble residues 2007 High temperature gas chromatography. " this standard EN15470:2007, compared with more adjustment in the structure, listed in Appendix A of this standard and EN15470:2007 the reg number control list.

This standard and EN15470. Difference and technical reasons 2007 is as follows.

- Modify the normative references, ENISO 4257 will be revised to SH/T 0233, for ease of use;
- Remove the EN15470:2007 7.2 Summary of Method, which was focused on the content of this standard are described in Chapter 4;
- The EN15470:2007 B.6 in Appendix B of the relevant parts of the capillary column presentation to present Standard 6.11 as an example, in order to improve operability standards;
- Increase the sample content (see Chapter 7), in order to raise the standard of operability.

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

- Increase the informative Appendix A "of this standard and EN15470:2007 Number of reg control";
- Of EN15470:2007 Annex A.1 sample data transfer device in Part A was re-edited to express character Our co-habit, easy to understand;
- Remove the EN15470:2007 in the informative Appendix B, which reads EN15470:2007

recommended a number of devices.

This standard by the National Standardization Technical Committee on products and lubricant oil (SAC/TC280) proposed.

This standard by the National Standardization Technical Committee of petroleum products lubricants oil and lubricants and fuels Technical Committee (SAC/TC280/SC1) centralized.

This standard was drafted. China Petroleum & Chemical Corporation Research Institute of Petroleum.

Introduction

This standard has the advantage that the required test LPG less sample (50g ~ 75g), quantitative results can indicate the source of the residue (watts Adams oils, lubricants, plasticizers, etc.).

This has developed into a standard measurement method commonly used alternative residue ISO 13757, the standard this safer, environmentally friendly, and more accurate data.

The scope of the study is the standard precision 20mg/kg ~ 100mg/kg of a representative sample, no higher levels of residue Verification test precision.

NOTE: EN15471 is the weight of the residue assay method can be used as an alternative method, with this standard has the same scope, the reliability of the data with minor Worse than this standard.

Determination of LPG soluble residues High Temperature Gas Chromatography Warning. This standard may involve some hazardous materials, operations and equipment, but not for all of the safety issues related to this are make a suggestion. Thus, the user before application of this standard to establish appropriate safety and health practices and determine the relevant regulatory restrictions applicable Versatility.

1 Scope

This standard specifies the test methods for liquefied petroleum gas (LPG) soluble residue content was measured for the range of 40mg/kg ~ 100mg/kg, if higher levels of residue can be controlled by adjusting the amount of sample.

Note: The content of remaining in the 40mg/kg ~ 100mg/kg can also be used outside the scope of this standard measurement, but precision in the levels of residue 20mg/kg ~ 100mg/kg range not outside to inspect their suitability unverified.

Determination of residues is soluble at ambient temperature to volatilize the sample, after drying 105 °C, detected by gas chromatography.

This standard is not suitable for solid samples and polymers (> 1000g/mol) measured.

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.

SH/T 0233 LPG sampling method

3 Terms and Definitions

The following terms and definitions apply to this document.

LPG liquefied petroleum gases; LPG Under appropriate pressure and ambient temperature, can be stored in the form of liquid petroleum gas treatment, its main ingredient is propane, butane and a small amount of propylene, butene, pentane, and (or) pentene.

4 Summary

The glass flask was equipped with isopropanol and placed in a dry ice cold bath for cooling, LPG samples (50g ~ 75g sample from the left in the tank Right) transferred to the cooling liquid form glass conical flask. LPG will be transferred to the sample glass flasks natural evaporation from However, after the end of the evaporator is placed inside an oven at 105 °C 1h. After cooling with carbon disulfide in the internal standard solution containing the residue was diluted with diluted After the mixture was analyzed by gas chromatography and quantified by internal standard method to calculate.

5 Reagents and materials

5.1

Isopropanol. AR.