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

GB/T 13290-2014

Replacing GB/T 13290-1991

**Propylene and butadiene for industrial use -- Sampling in the
liquid phase**

工业用丙烯和丁二烯液态采样法

(English Translation)

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Foreword

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

This standard replaces GB/T 13290-1991 "industrial liquid propylene and butadiene sampling method." this standard and GB/T 13290-1991 main differences are as follows.

- Added "Normative references" (see Chapter 2);
- Added "samples should meet the safety requirements of GB/T 3723" (see 3.1);
- Increased sampling and its connecting pipelines inside special treatment when trace amounts of polar compounds analysis requirements (see 4.1.2);
- Original standard sample line renamed "non-enclosed sample line," modify the diagram (see 4.2.1 and Figure 2, 1991 edition 3.2 and Figure 2), increasing the sampling lines and closed schematic (see 4.2.2 and Figure 3, Figure 4);
- Amend non-hermetic sampling sampler replacement pattern (see 5.1, Chapter 4, 1991 edition.);
- Increased closed sampling requirements (see 5.2).

The standard reference method using redrafted ISO 8563. 1987 "Propylene and butadiene for industrial use - liquid sampling method" (in English), and ISO 8563. 1987 is not equivalent degree of consistency.

This standard and ISO 8563. 1987 is the main differences.

- Added "normative references";
- Increased sampling requirements and its connecting pipelines inside special treatment when trace polar compound analysis;
- Modified sampler replacement mode;

--- Increased airtight sampling requirements.

The standard proposed by China Petroleum and Chemical Corporation.

This standard by the National Standardization Technical Committee Petrochemical Chemical Technical Committee (SAC/TC63/SC4) centralized.

This standard was drafted. China Petroleum & Chemical Co., Shanghai Research Institute of Petroleum, China Petroleum & Chemical Corporation North Beijing Yanshan Company.

1 Scope

This standard specifies the sample to take liquid propylene and butadiene methods and related considerations. Samples taken suitable propylene or butyl Analysis of the diene.

This standard also applies to the sample liquid 1-butene or isobutene.

This standard is not intended to illustrate its use of all safety-related issues. The user's responsibility to take appropriate safety and health measures Facilities, to ensure compliance with the provisions of relevant state laws and regulations.

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.

GB/T 3723 Sampling of chemical products for industrial use General Safety (GB/T 3723-1999, idt ISO 3165. 1976)

3 Safety Precautions

3.1

Industrial propylene and butadiene are flammable volatiles, samples should meet the safety requirements GB/T 3723.

3.2

When the liquid propylene or butadiene evaporates from the surface of the metal, will cause drama cold, if the contact surface of the cylinder will cause frostbite, so mining Sampler can handle configuration, the operator should wear protective goggles and gloves.

Asphyxiating substances belong 3.3 propylene, butadiene as a hazardous substance, the maximum allowable concentration in the air is 100mg/m³, but both can Mixed with air form an explosive atmosphere. Thus, the sampling site must ensure good ventilation.

3.4

Since the liquid propylene or butadiene vapor is heavier than air, so when a sample produced a lot of vent vapors will immediately spread to the surrounding the atmosphere and accumulate in low. Therefore, when handling liquid sample, shall comply with the following rules.

- a) To eliminate static electricity, when the sample is emptied, the sampler should be grounded.
- b) If the operation is not in the open air, you should use high wind hood.
- c) the power supply, ventilation hoods, fans, motors and other electrical equipment should be explosion-proof structure, and in accordance with relevant state regulations.

3.5

when cleaning the sampler, the sampler is discharged within the sample, and processing waste steam to safety, emissions and safety point should meet safety Full and environmental requirements. Illustrated exhaust system gives the remaining samples in Appendix A.

3.6

If you need to transport samples containing high pressure sampler, transport of dangerous goods shall comply with the relevant laws and regulations.

NOTE: When you take a liquid such as 1-butene or isobutene sample shall comply with the above safety precautions.

4.1 Sampler

4.1.1

use two-valve with adjustment tube sampler (as shown in Figure 1). Made of stainless steel (1Cr18Ni9Ti) or high-quality carbon steel, the volume 0.15L ~ 2.0L, 1.5L and 0.25L chosen under normal circumstances. Sampler for liquid propylene, working pressure 4MPa; for liquid State butadiene sampler, working pressure 3MPa. End of the tube position adjustment should ensure that 20% of the reserved space sampler. sampling Pressure test is conducted every two years, the hydrostatic test was 5.9MPa (60kg/cm²) and 4.5MPa (46kg/cm²).