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

GB/T 16591-2013

Replacing GB/T 16591-1996

**Rubber hoses and hose assemblies for transferring anhydrous
ammonia -- Specification**

输送无水氨用橡胶软管及软管组合件 规范

(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 16591-1996 "transferring anhydrous ammonia Rubber hoses and hose assemblies", and GB/T 16591-1996 phase Technology than the main changes are as follows.

- Normative references have changed (see Chapter 2, Chapter 2, 1996 edition);
- Increasing the term (see Chapter 3);
- Increase the measured concentricity (see 6.3);
- Modify the inner diameter hose specifications and tolerances (see Table 2, 1996 edition Table 4);
- Improving the liner bond strength and the outer coating adhesion strength (see table 4, 1996 edition of Chapter 2);
- Modify the inner liner and an outer cover layer of rubber compound physical properties (see 71, 1996 edition of 4.1,4.3.);
- Amend Table 2 (see Chapter 7, Chapter 4, 1996 edition);
- Deleted Table 3 (1996 Version 4.4);
- Increase the hose assembly and test delivery using the annual testing requirements (see Chapter 8);
- Increase the test frequency (see Chapter 9);
- Increased packaging and storage requirements (see Chapter 11);
- Increasing the test certificate (see Chapter 12);
- Added Appendix A, Appendix B, Appendix C (see Appendix A, Appendix B, Appendix C);

--- Modify the hose cutting length tolerance (see Appendix A, 1996 edition of Table 5).

This standard uses the translation method identical with ISO 5771:2008 "for transferring anhydrous ammonia Rubber hoses and hose assemblies - Specification." Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 528-2009 vulcanized rubber or thermoplastic rubber tensile stress strain properties (ISO 37:2005, IDT)

--- GB/T 3512-2001 vulcanized rubber or thermoplastic rubber hot air and heat accelerated aging test (eqv ISO 188:1998)

--- GB/T 5563-2006 Rubber and plastic hoses and hose assemblies - Hydrostatic testing (ISO 1402:1994, IDT)

--- GB/T 7528-2011 Rubber and plastic hoses and hose assemblies terminology (ISO 8330:2007, IDT)

--- GB/T 9573-2003 Rubber and plastics hose and hose assemblies size measurement method (ISO 4671:1999, IDT)

--- GB/T 9575-2003 industrial and general rubber plastic hose diameters and tolerances, and tolerances on length (ISO 1307:1992, IDT)

--- GB/T 14905-2009 Rubber and plastics hoses - Determination of adhesion between layers (ISO 8033:2006, IDT) this standard made the following editorial changes.

--- Chapter 2 references ISO 7326, because in the text reference is ISO 7326:2006 method, should be dated references, so be amended to date references, and converted to the corresponding country standard GB/T 24134-2009;

--- Appendix of tables and order of appearance will be renumbered.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Rubber and rubber products hose Standardization Technical Committee Technical Committee (SAC/TC35/SC1) centralized.

1 Scope

This standard specifies the technical requirements for transporting liquid or gaseous form of ammonia at -40 °C ~ 55 °C ambient temperature with a rubber hose.

It does not include pipe fitting specifications, performance is limited to the use of hoses and hose assemblies.

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 5564-2006 Rubber and plastic hoses low temperature flexibility tests (ISO 4672:1997, IDT) GB/T 24134-2009 Evaluation of ozone resistance properties of rubber and plastic hoses under static conditions (ISO 7326:2006, IDT) ISO 37 Rubber, vulcanized or thermoplastic rubber --- Determination of tensile stress-strain properties (Rubber, vulcanized or thermo-plastic-Determination of tensile stress-strain properties) ISO 188:2007 vulcanized rubber or thermoplastic rubber Accelerated aging and heat resistance test (Rubber, vulcanized or thermo-plastic-Accelerated ageing and heat resistance tests) ISO 1307 Rubber and plastics hoses --- hose specifications, the minimum and maximum internal diameter of the hose and cut into segments of tolerance (Rubber and plastic hoses-Hosesizes, minimum and maximum inside diameters, and tolerances on cut-to-length hoses) ISO 1402 Rubber and plastics hoses and hose assemblies - Hydrostatic testing (Rubber and plastic hoses and hose assemblies-Hydrostatic testing) ISO 4671 Rubber and plastics hoses and hose assemblies size measurement method (Rubber and plastic hoses and hose assemblies-Method of measurement of dimensions) Determination of ISO 8033 Rubber and plastics hoses adhesion strength between layers (Rubber and plastic hose-Determination of adhesion between components) ISO 8330 Rubber and plastics hoses and hose assemblies term (Rubber and plastic hoses and hose assemblies-Vocabulary)

3 Terms and Definitions

The terms and definitions given in ISO 8330 apply to this document.

4 Rated pressure

Pressure rating shall comply with the requirements in Table 1.