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Standard Specification for Cyclohexane 999[1]

This standard is issued under the fixed designation D 5309; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers a grade of cyclohexane identified as "cyclohexane 999."

1.2 The following applies to all specified limits in this standard: for purposes of determining conformance with this standard, an observed value or a calculated value shall be rounded off "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E 29.

1.3 Consult current OSHA regulations, supplier's Material Safety Data Sheets, and local regulations for all materials used in this specification.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

D 850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

~~D3054Test Methods for Analysis of Cyclohexane by Gas Chromatography[2]~~ 3437 Practice for Sampling and Handling Liquid Cyclic Products

~~D3437Practice for Sampling and Handling Liquid Cyclic Products[2]~~ 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

~~D4045Test Method for Sulfur in Petroleum Products by Hydrogenolysis and Rateometric Colorimetry~~ 7183 Test Method for Determination of Total Sulfur in Aromatic Hydrocarbons and Related Chemicals by Ultraviolet Fluorescence

~~D5386Test Method for Color of Liquids Using Tristimulus Colorimetry[2]~~

~~D6212Test Method for Total Sulfur in Aromatic Compounds by Hydrogenolysis and Rateometric Colorimetry[2]~~

~~D6313Test Method for Total Sulfur in Aromatic Compounds by Hydrogenolysis and Sulfur Specific Difference Photometry[2]~~

~~D6428Test Method for Total Sulfur in Liquid Aromatic Hydrocarbons and Their Derivatives by Oxidative Combustion and Electrochemical Detection[2]~~ 7266 Test Method for Analysis of Cyclohexane by Gas Chromatography (External Standard)

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

2.2 *Other Documents:*

OSHA Regulations, 29 CFR, Paragraphs 1910.1000 and 1910.1200 [3]

3. Properties

3.1 Cyclohexane 999 shall conform to the following requirements:

Property	Specification	ASTM Test Method
~~Purity, min, weight %~~	~~99.90~~	~~D 3054~~
Purity, min, weight %	99.90	D 7266
~~Benzene, max, mg/kg~~	~~50~~	~~D 3054~~
Benzene, max, mg/kg	50	D 7266
~~n-Hexane, max, mg/kg~~	~~200~~	~~D 3054~~

[1] This specification is under the jurisdiction of ASTM Committee D16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.01 on Benzene, Toluene, Xylenes, Cyclohexane~~,~~ and Their Derivatives.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* ~~, Vol 06.04.~~volume information, refer to the standard's Document Summary page on the ASTM website.

~~[3] Annual Book of ASTM Standards, Vol 05.02.~~

[3] Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, http://www.access.gpo.gov.

***A Summary of Changes section appears at the end of this standard.**