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MINISTRY OF INDUSTRY
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الإمارات العربية المتحدة
وزارة الصناعة
والتكنولوجيا المتقدمة

اللائحة الفنية الإماراتية

UAE.S 672: 2026

الغازات البترولية المسالة - خليط البروبان والبيوتان التجاري

Liquefied Petroleum Gases - Mixture of Commercial Propane and Butane

ICS: 75.160.30

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المواصفات القياسية لدولة الإمارات العربية المتحدة

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تقديم

وزارة الصناعة والتكنولوجيا المتقدمة هي الجهة المسؤولة عن أنشطة التقييس بالدولة، بموجب المرسوم بقانون اتحادي رقم 20 لسنة 2020 بشأن المواصفات والمقاييس، ومن مهامها إعداد المواصفات القياسية واللوائح الفنية الإماراتية بواسطة لجان فنية وفرق عمل متخصصة.

وقد قامت الوزارة ضمن برنامج عمل اللجنة الفنية الوطنية للنفط والغاز بإعداد مشروع اللائحة الفنية الإماراتية رقم UAE.S 672: 2026 " الغازات البترولية المسالة - خليط البروبان والبيوتان التجاري وذلك بعد الاطلاع على القوانين والتشريعات الإماراتية، وعلى الاتفاقيات والممارسات الدولية المعتمدة.

وقد اعتمدت هذه اللائحة الفنية لدولة الإمارات العربية المتحدة بموجب قرار مجلس الوزراء رقم (.....) لسنة 2026 والمنشور في الجريدة الرسمية.

وهذه اللائحة الفنية سوف تلغي وتحل محل المواصفة القياسية الإماراتية رقم UAE.S GSO 672: 2010

Foreword

The Ministry of Industry and Advanced Technology (MoIAT) has a national responsibility for standardization activities. One of MoIAT's main functions is to issue Emirates Standards /Technical regulations through specialized technical committees (TCs) and working groups (WG).

Through National Technical Committee for Oil and Gas, MoIAT has prepared the UAE draft Standard no. UAE.S 672: 2026 "Liquefied Petroleum Gases - Mixture of Commercial Propane and Butane" after reviewing the UAE laws and legislation, and the international agreements and practices adopted and implemented at the international and national levels.

This UAE Technical Regulation has been approved by Ministerial Cabinet No. (....) date 2026.

This Technical Regulation will supersede and replace UAE Standard No. UAE.S GSO 672: 2010.

Liquefied Petroleum Gases - Mixture of Commercial Propane and Butane

1. Scope

This UAE Technical Regulation is concerned with specification and requirement for the Liquefied Petroleum Gases (LPG) used as domestic, commercial or industrial fuel.

2. Complementary References

2.1 UAE.S GSO ISO 4257 "Liquefied petroleum gases - Method of sampling".

2.2 UAE.S GSO ISO 4256 "Liquefied petroleum gases - Determination of gauge vapour pressure - LPG method".

2.3 UAE.S GSO ASTM D2420 "Standard test method for hydrogen sulfide in liquefied petroleum (LPG) gases (lead acetate method)".

2.4 UAE.S GSO ASTM D1838 "Standard Test Method for Copper Strip Corrosion by Liquefied Petroleum (LP) Gases".

2.5 UAE.S GSO ASTM D2598 "Standard Practice for Calculation of Certain Physical Properties of Liquefied Petroleum (LP) Gases from Compositional Analysis".

2.6 UAE.S GSO ASTM D2158 "Standard test method for residues in liquefied petroleum (LP) gases".

2.7 UAE.S GSO ASTM D2163 "Standard Test Method for Determination of Hydrocarbons in Liquefied Petroleum (LP) Gases and Propane/Propene Mixtures by Gas Chromatography".

2.8 UAE.S GSO ASTM D5504 "Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence".

2.9 UAE.S GSO ASTM D6897 "Standard Test Method for Vapor Pressure of Liquefied Petroleum Gases (LPG) (Expansion Method).

2.10 ASTM D1267 "Standard Test Method for Gauge Vapor Pressure of Liquefied Petroleum (LP) Gases (LP-Gas Method)".

2.11 ASTM D6667 "Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence".

2.12 UAE.S GSO 2746 "Propane (Liquefied Petroleum Gas)".

2.13 UAE.S GSO 2752 "Butane (Liquefied Petroleum Gas)".

2.14 IP 272 "Determination of mercaptan sulfur and hydrogen sulfide content of liquefied petroleum gases (LPG) - Electrometric titration method".

2.15 UOP 212 "Determination of hydrogen sulfide, Sulfur mercaptans and carbonyl sulfide in gaseous hydrocarbons by Potentiometric titration".

2.16 Ministerial Cabinet Decree no (11) year 2011 of UAE System for the Mandatory application of Standards and Rrequirements for Liquefied Petroleum Gas Cylinders (LPG) and Its Amendments.

3. Definitions

3.1 Liquid Petroleum Gas (LPG):

A mixture of hydrocarbons principally propane and butane obtained from refinery gases, Natural Gas Liquid Condensate, Heavy Oil etc. which can be stored, and handled as liquid at ambient temperature and moderate pressure and used as domestic, commercial, and industrial gas fuel.

4. Characteristics

Following characteristics and requirements must be available in the LPG:

4.1 It should be stored as a liquid and used as gas.

4.2 It should be suitable for use as domestic and industrial fuel.

4.3 It may contain additive including mercaptans for odour.

4.4 It should be free from water and sediments.

4.5 It should comply with the requirements covered by Table (1) "The Characteristics and Requirements for LPG".

4.6 The Propane and Butane Gases used in blending the LPG shall comply with the requirements of the standards UAE.S GSO 2746 "Propane (Liquefied Petroleum Gas)" and UAE.S GSO 2752 "Refrigerated Butane (Liquefied Petroleum Gas)".

5. Sampling Method

Samples of LPG should be obtained from storage tanks for testing and inspection in accordance with standard of sampling mentioned in Item 2.1.

6. Testing and evaluation

Testing and evaluation of samples shall be carried out to assess the conformity of the product with its properties and requirements stated in Table (1) in accordance with the testing methods specified in the standards listed in front of each property of liquefied petroleum gas.

Table (1)

The Characteristics and Requirements for LPG

Property	Unit	Limit		Test Method
		Min	Max	
Hydrocarbon Composition:	Liq. Vol%			UAE.S GSO ASTM D2163
Ethane		Report		
Propane		20.0	35.0	
Butane		Report		
Pentane		Report		
Relative Density at 15.6 °C	-	Report		UAE.S GSO ASTM D2598
Vapour Pressure at 37.8 °C	Kg/cm^2	-	6.7	UAE.S GSO ASTM D2598, ASTM D1267, UAE.S GSO ASTM D6897
Total Sulphur	ppm wt.	-	100	UAE.S GSO ASTM D5504, ASTM D6667
Mercaptan Sulphur	ppm wt.	15	45	IP 272, UOP 212, UAE.S GSO ASTM D5504
Copper Corrosion 1 hr at 37.8 °C	-	-	1	UAE.S GSO ASTM D1838
Volatile Residue, Pentane and Heavier (Including Olefinic Hydrocarbons having C5 and higher carbon atoms)	Vol%	-	2.0	UAE.S GSO ASTM D2163
Free Water Content	-	Nil		Visual