## INTERNATIONAL STANDARD

Second edition 1999-05-01

# Petroleum liquids and liquefied petroleum gases — Measurement — Standard reference conditions

Produits pétroliers liquides et gaz de pétrole liquéfiés — Mesurage — Conditions normales de référence



#### Foreword

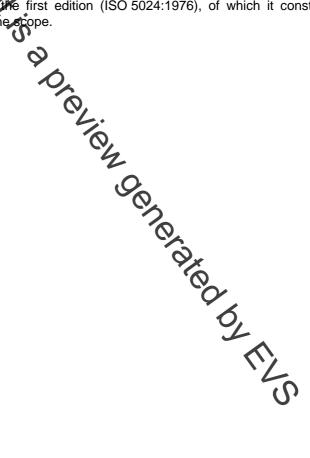
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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5024 was arepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants,* Subcommittee SC 3, *Static petroleum measurement.* 

This second edition cancels and replaces the first edition (ISO 5024:1976), of which it constitutes a technical revision in that it excludes natural gas from the scope.



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#### Introduction

Most custody transfers of crude petroleum and its products are transacted in volumetric quantities. Since crude oils and petroleum products have relatively high coefficients of thermal expansion and compressibility, volumes are corrected to standard conditions of temperature and pressure in order to provide a meaningful and consistent basis for measurement. The definition of standard reference conditions is therefore of fundamental importance in measurement, calculation and accounting of petroleum quantities.

At the time of publication of this International Standard, reference conditions for crude petroleum and its products at 20 °C and 60 °F are still to use in some countries.

It is hoped that the worldwide results to contract. It is hoped that the worldwide restriction of the exclusive use of the International System of Units (SI) will ultimately establish a single uniform set of spandard reference conditions which will further simplify the requirements of world trade and commerce. this document is a preview denerated by EUS

### Petroleum liquids and liquefied petroleum gases — Measurement — Standard reference conditions

#### 1 Scope

This International Standard reference conditions of pressure and temperature for measurements carried out on Crude petroleum and its products, including liquefied petroleum gases.

It excludes natural gas.

NOTE Standard reference conditions or natural gas are given in ISO 13443<sup>1)</sup>.

#### 2 Standard reference conditions

The standard reference conditions of pressure and emperature for use in measurements on crude petroleum and its products shall be 101,325 kPa<sup>2</sup> (absolute) and 15°C, with the exception of liquid hydrocarbons having a vapour pressure greater than atmospheric at 15 °C, in which case the standard pressure shall be equilibrium vapour pressure at 15 °C.

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<sup>&</sup>lt;sup>1)</sup> ISO 13443:1996, *Natural gas* — *Standard reference conditions*.

<sup>&</sup>lt;sup>2)</sup> 101,325 kPa = 1,013 25 bar = 1 013, 25 mbar = 1 atm