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Liquid-in-glass thermometers for testing of petroleum product

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Descriptors : petroleum products, testing, thermometers

Reference number : **JIS B 7410 : 1997 (E)**

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently **JIS B 7410** : 1982 is replaced with **JIS B 7410** : 1997.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

Liquid-in-glass thermometers for testing of petroleum product

1 Scope This Japanese Industrial Standard specifies the stick-type liquid-in-glass thermometers for testing of petroleum products (hereafter referred to as "thermometer").

Remarks: Since this Standard can not cover wholly the safe method to use these thermometers, the user of these thermometers shall establish adequately in advance the prohibited items for keeping of safety and health.

2 Normative references The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent edition of the standard indicated below shall be applied.

JIS Z 8103 *Glossary of terms used in instrumentation*

3 Definitions For the purposes of this Standard, the following definitions apply, in addition to the definitions given in **JIS Z 8103**.

a) **immersion** The immersion means such a state of a thermometer that it is kept at the temperature to be measured, and includes the complete immersion and the partial immersion.

Remarks: The complete immersion means such a state of the thermometer that it is kept at the temperature to be measured up to the top part of its liquid column, the partial immersion means such a state of the temperature that it is kept at the temperature to be measured up to the designated position from the lowest end of bulb part.

b) **expansion chamber** The expansion chamber is a chamber made by expanding the top part of capillary tube of thermometer so that the thermometer is not damaged when it has been heated up to the temperature of maximum graduation or more.

c) **contraction chamber** The contraction chamber is a chamber made by expanding the part of capillary tube adjacent to the bulb part to avoid shortness of liquid caused by such a phenomenon that the enclosed liquid is wholly drawn into the bulb part when the thermometer has been kept at a low temperature.

d) **stem enlargement** The thickened part of stem for convenience of fitting to the test apparatus.

4 Classification The thermometers shall be classified into 92 types as shown in Attached Table 1.

5 Temperature graduation The graduation of thermometers shall be as follows:

a) The thermometers shall be graduated based on Celsius graduation and SI units which have been adopted by the general meeting of weights and measures and established by the existing definitions on the international temperature graduation.