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In the event of any doubts arising as to the contents,  
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## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japan Metal Working Fluids Association (JMFA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently, **JIS K 2242:2006** is replaced with this Standard.

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Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public or utility model right. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public or utility model right.

# Heat treating fluids

## Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 6743-14** published in 1994 and the first edition of **ISO 9950** published in 1995 with some modifications of the technical contents to meet the actual situation in Japan.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standards have been modified. A list of modifications with the explanation is given in Annex JA.

## 1 Scope

This Standard specifies heat treating fluids composed mainly of mineral oils (hereafter referred to as “heat treating oils”) among heat treating fluids which are to be used for heat treatment of iron and steel or other metals.

For the water soluble heat treating fluids (hereafter referred to as “water soluble quenching liquids”), only the testing method of cooling performance is specified in Annex A.

**NOTE :** The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 6743-14:1994 *Lubricants, industrial oils and related products (class L)—Classification—Part 14: Family U (Heat treatment)*

ISO 9950:1995 *Industrial quenching oils—Determination of cooling characteristics—Nickel-alloy probe test method* (overall evaluation: MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

**Warning:** Persons carrying out tests based on this Standard should be familiar with normal laboratory practice. This Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this Standard to establish appropriate safety and health practices.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7410 *Liquid-in-glass thermometers for testing of petroleum product*

JIS C 1602 *Thermocouples*

JIS C 1605 *Mineral insulated thermocouples*

JIS C 4003 *Electrical insulation—Thermal evaluation and designation*