

JAPANESE INDUSTRIAL STANDARD

Translated and Published by Japanese Standards Association

 $JIS\ K\ 2233:2024$

(JACA/JSA)

Non-petroleum base motor vehicle brake fluids

This document has incorporated the erratum to the Japanese version issued in January, 2025.

ICS 75.120;43.040.40

Reference number: JIS K 2233: 2024 (E)

K 2233: 2024

Date of Establishment: 1964-03-01

Date of Revision: 2024-03-21

Date of Public Notice in Official Gazette: 2024-03-21

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

JIS K 2233: 2024, First English edition published in 2025-06

Translated and published by: Japanese Standards Association Mita Avanti, 3-11-28, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

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

© JSA 2025

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan HN

Contents

			Page
.			_
Introduction ····································			
1	Scope		$\cdots 1$
2	Normative references · · · · · · · · · · · · · · · · · · ·		$\cdots 1$
3	Terms and definitions ·····		$\cdot \cdot 3$
4	Classification ····		$\cdot \cdot 3$
5	Quality ····		$\cdots 4$
6	General matter ·····		$\cdots 5$
7	Sampling		6
8	Standard atmospheric conditions for testing ······		6
9	Test methods ·····		-
9.1	Equilibrium reflux boiling point ······		$\cdot \cdot \cdot 6$
9.2	Wet boiling point ·····		
9.3	Kinematic viscosity ·····		
9.4			
9.5	Stability ·····1		
9.6	Metal corrosion resistance ······15		·13
9.7	Cold resistance ·····		·20
9.8	Water tolerance ······2		
9.9	Miscibility		·22
9.10	Resistance to oxidation ·······2		·23
9.11	Effect on rubber · · · · · · · · · · · · · · · · · · ·		·26
10	Container ······2		.28
11	Inspection ····································		·28
12	Marking ·····		·28
Annex	x JA (normative)	Stroking performance and its test method ······	.30
		Comparison table between JIS and corresponding International Standards · · · · · · · · · · · · · · · · · · ·	·46

Foreword

This Japanese Industrial Standard has been 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 Japanese Industrial Standard submitted by Japan Auto Chemical Industry Association (JACA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (JIS K 2233: 2017), which has been technically revised.

However, **JIS K 2233**: 2017 may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 20 March 2025.

This **JIS** document is protected by the Copyright Act.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, published patent application or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, published patent application or utility model rights.

Non-petroleum base motor vehicle brake fluids

JIS K 2233: 2024

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 3871**: 2000, Edition 4, and **ISO 4925**: 2020, Edition 3, with some modifications of the technical contents.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standards. A list of modifications with the explanations is given in Annex JB. Annex JA is unique to **JIS** and not given in the corresponding International Standards.

1 Scope

This Standard specifies the requirements for the non-petroleum base brake fluids (hereafter referred to as the brake fluids) used for motor vehicles.

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

ISO 3871: 2000 Road vehicles — Labelling of containers for petroleum-based or non-petroleum-based brake fluid

ISO 4925: 2020 Road vehicles — Specification of non-petroleum-based brake fluids for hydraulic systems (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**.

2 Normative references

Part or all of the provisions of the following standards, through reference in this text, constitute provisions of this Standard. For standards with the year indication, only the editions of the indicated year shall be applied and the revisions (including amendments) made thereafter shall not be applied. For those without the indication of the year, the most recent editions (including amendments) shall be applied.

JIS B 7410 Liquid-in-glass thermometers for testing of petroleum product JIS B 7502 Micrometers

JIS B 7505-1 Aneroid pressure gauges — Part 1: Bourdon tube pressure gauges

JIS B 7515 Cylinder gauges

JIS D 2604 Automotive parts — Hydraulic brake wheel cylinders for hydraulic brake systems using a non-petroleum base brake fluid

JIS D 2605 Automotive parts — Rubber cups for hydraulic braking cylinders using