INTERNATIONAL STANDARD ISO 4926

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Road vehicles — Hydraulic brake systems — Non-petroleum base reference fluids

Véhicules routiers — Freins hydrauliques — Liquides de référence à base non pétrolière

First edition — 1978-02-15

UDC 629.113-592.2 : 665.767 **Ref. No. ISO 4926-1978 (E)**

Descriptors : road vehicles, brake systems, hydraulic brakes, specifications, chemical composition, physical properties.

Price based on 2 pages

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4926 was developed by Technical Committee ISO/TC 22, *Road vehicles*, and was circulated to the member bodies in June 1976.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Philippines
Austria	Iran	South Africa, Rep. of
Belgium	Italy	Spain
Brazil	Japan	Sweden
Chile	Korea, Rep. of	Switzerland
Czechoslovakia	Mexico	United Kingdom
France	Netherlands	U.S.A.
Germany	New Zealand	Yugoslavia

No member body expressed disapproval of the document.

Printed in Switzerland

Road vehicles — Hydraulic brake systems — Non-petroleum base reference fluids

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the composition and some characteristics of two reference fluids used for the testing of hydraulic braking systems and components mounted on road vehicles.

2 ISO COMPATIBILITY FLUID — COMPOSITION

Item	Constituent	Composition mass %
1	Monoethyl ether of diethylene glycol	51,70
2	Monobutyl ether of diethylene glycol	2,26
3	Methyl ether of tripropylene glycol	5,12
4	Polyalkylene oxide triol, kinematic viscosity 200 ± 10 cSt[1] at 38 °C, relative density 20/20 °C 1,064	5,30
5	Ethylene glycol	2,47
6	Diethylene glycol	1,34
7	Propylene glycol	2,45
8	Methyl isobutyl carbinol	4,30
9	Polypropylene glycol, average molecular mass 2 025	2,30
10	Polypropylene glycol, average molecular mass 150	1,30
11	Propylene glycol monoricinoleate	3,30
12	Reacted castor oil — polypropylene glycol	1,90
13	2-Methyl, 2, 4 pentanediol	2,80
14	Monobutyl ether 1, 2 oxyethylene, 1, 2 oxypropylene glycols, relative density 20/20 °C 1,058, kinematic viscosity 440 ± 22 cSt[1] at 38 °C	3,16
15	Monobutyl ether 1, 2 oxyethylene, 1, 2 oxypropylene glycols, relative density 20/20 °C 1,038, kinematic viscosity 56,5 ± 3 cSt[1] at 38 °C	8,85
16	Borax-ethylene glycol condensate (25 % sodium tetraborate, anhydrous)	0,25
17	Diphenylol propane	0,53
18	Sodium nitrate	0,01
19	Sodium tetraborate	0,10
20	Potassium tetraborate	0,18
21	Tricresyl phosphate	0,10
22	Amino imidazoline salt 33 % solution	0,01
23	Potassium castor oil soap (neutral-anhydrous)	0,18
24	*N*-phenylmorpholine	0,09

NOTE — Item 4 : Glycerine initiated triol using charges of 50 % ethylene oxide and 50 % propylene oxide.

Items 14 and 15 : Butanol initiated monoether using charges of 50 % ethylene oxide and 50 % propylene oxide.

1) 1 cSt = 1 mm^2/s. A recommended submultiple of the SI unit (m^2/s) for kinematic viscosity is the mm^2/s. In practice the centistokes (cSt) is generally used.