



**International
Standard**

ISO 7745

**Hydraulic fluid power — Fire-
resistant fluids — Requirements
and guidelines for use**

*Transmissions hydrauliques — Fluides difficilement inflammables
— Exigences et recommandations pour leur utilisation*

**Third edition
2024-02**

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Foreword

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This third edition cancels and replaces the second edition (ISO 7745:2010), which has been technically revised.

The main changes are as follows:

- addition of [Clause 2](#) “Normative references” and renumbering of subsequent clauses accordingly;
- update of [Table 2](#);
- update of the dated references.

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Introduction

In hydraulic fluid power systems, power is transmitted and controlled through a liquid under pressure within an enclosed circuit. The most widely used liquid for hydraulic power systems is mineral oil which has the advantages of excellent lubricity, availability in a wide range of viscosities and reasonable cost.

While not readily ignited in bulk, mineral oil is nevertheless flammable and the high pressures associated with hydraulic systems can lead to a release of fluid which is easily ignited. In circumstances where ignition is likely, such as in a steel mill, or where the released fluid must not propagate a fire, such as in a coal mine, an alternative fire-resistant fluid must be used. Fire-resistance and physical properties such as viscosity and lubricity vary widely among the several types of fluid available. It is therefore important to select a fire-resistant fluid which matches its proposed application and the perceived hazards in use.