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**Lubricants, industrial oils and related  
products (class L) — Classification —**

Part 1:  
**Family A (Total loss systems)**

*Lubrifiants, huiles industrielles et produits connexes (classe L) —  
Classification —*

*Partie 1: Famille A (Graissage perdu)*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 6743 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6743-1 was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, Subcommittee SC 4, *Classifications and specifications*.

This second edition cancels and replaces the first edition (ISO 6743-1:1981), which has been technically revised.

ISO 6743 consists of the following parts, under the general title *Lubricants, industrial oils and related products (class L) — Classification*:

- Part 1: Family A (Total loss systems)
- Part 2: Family F (Spindle bearings, bearings and associated clutches)
- Part 3: Family D (Compressors)
- Part 4: Family H (Hydraulic systems)
- Part 5: Family T (Turbines)
- Part 6: Family C (Gears)
- Part 7: Family M (Metalworking)
- Part 8: Family R (Temporary protection against corrosion)
- Part 9: Family X (Greases)
- Part 10: Family Y (Miscellaneous)
- Part 11: Family P (Pneumatic tools)
- Part 12: Family Q (Heat transfer fluids)
- Part 13: Family G (Slideways)
- Part 14: Family U (Heat treatment)

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— *Part 15: Family E (Internal combustion engine oils)*

— *Part 99: General*

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# Lubricants, industrial oils and related products (class L) — Classification —

## Part 1: Family A (Total loss systems)

### 1 Scope

This part of ISO 6743 establishes the detailed classification of family A (Total loss systems) which belongs to class L (Lubricants, industrial oils and related products).

This part should be read in conjunction with ISO 6743-99 (see [1] in the bibliography).

### 2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of ISO 6743. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 6743 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3448:1992, *Industrial liquid lubricants — ISO viscosity classification*

### 3 Explanation of symbols used

**3.1** The detailed classification of family A has been established by defining the categories of products required for the main applications of this family.

**3.2** Each category is designated by a symbol consisting of a group of letters, which together constitute a code.

NOTE The first letter of the code (A) identifies the family of the product considered, but the second letter taken separately has no significance of its own.

The designation of each category may be supplemented by the addition of viscosity grades according to ISO 3448.

**3.3** For categories AY, AN and AB, products are designated by numerical grades according to their viscosity (VG) as given in ISO 3448. This form may be complete, e.g. ISO-L-AN 32, or abbreviated to L-AN 32.

NOTE For category AC, additional categories will be defined in a specification standard in the course of development (see annex A), corresponding to low-temperature operability.

### 4 Detailed classification

The detailed classification is shown in Table 1.

**Table 1 — Classification of lubricants, industrial oils and related products (class L) — Family A (Total loss systems)**

Code letter	General application	More specific application	Composition and properties	Symbol ISO-L	Typical applications	Remarks
A	Total loss systems	Code letter	Mildly refined mineral oils	AY	Rough applications, axles, railway points, etc. <sup>a</sup>	Some products of this category may contain components which could be harmful to health and environment
			Refined mineral oils	AN	Lightly loaded parts (rolling bearings, gears), plain bearings in hydrodynamic regime	
			Refined mineral oils containing bitumen or additives to improve certain properties, e.g. adhesiveness, extreme pressure, anti-corrosion	AB	Open gears, wire ropes, mechanical chains <sup>b</sup>	
			Oils, either of mineral, animal, vegetable or synthetic origin, containing suitable additives to impart the necessary properties	AC	Chains of chain saws	
<p><sup>a</sup> For those implying direct discharge into the environment, the lubricant has to comply with the regulation in force in each country.</p> <p><sup>b</sup> For some applications, such as open gears, wire ropes, exposed chains, railway points, rail curves and plain bearings, etc., soft to fluid lubricating greases may be used. The classification and specifications of such greases will be addressed separately.</p>						

## Annex A (informative)

### Additional sub-categories for category AC

For product category AC, additional sub-categories will be defined in a separate International Standard, addressing the specifications of the products. The sub-categories will correspond to various levels of low-temperature operability, oxidation stability and environmental acceptability (toxicity and biodegradability).

At the time of publication of this part of ISO 6743, the specification standard for category AC is in the course of development, at the preliminary stage and will be referenced as ISO 11679:—<sup>1)</sup>, *Lubricants, industrial oils and related products (class L) — Family A (Total loss systems) — Specifications for lubricants for saw chains and guide bars of chain saws.*

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1) To be published.

## Bibliography

- [1] ISO 6743-99:2002, *Lubricants, industrial oils and related products (class L) — Classification — Part 99: General*

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