
**Animal feeding stuffs, animal products, and
faeces or urine — Determination of gross
calorific value — Bomb calorimeter method**

*Aliments des animaux, produits d'origine animale et excréments ou
urines — Détermination de la valeur calorifique brute — Méthode à la
bombe calorimétrique*



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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.

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.

International Standard ISO 9831 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 10, *Animal feeding stuffs*.

Annexes A and B are an integral part of this International Standard. Annexes C to F are for information only.

Animal feeding stuffs, animal products, and faeces or urine — Determination of gross calorific value — Bomb calorimeter method

1 Scope

This International Standard specifies a method for the determination of the gross calorific value of animal feeding stuffs, animal products and faeces or urine at constant volume in an adiabatic, an isothermal, or a static bomb calorimeter.

The result obtained by this method is the gross calorific value of the test sample at constant volume, the water of the combustion products being condensed to liquid at the calorimeter temperature.

NOTE The international reference temperature for thermochemistry of 25 °C is used as the reference temperature for calorific value, although the temperature dependence of the calorific value of the materials to which this International Standard applies is small (about $1 \text{ J} \cdot \text{g}^{-1} \cdot \text{K}^{-1}$).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 651:1975, *Solid-stem calorimeter thermometers*.

ISO 652:1975, *Enclosed-scale calorimeter thermometers*.

ISO 1770:1981, *Solid-stem general purpose thermometers*.

ISO 1771:1981, *Enclosed-scale general purpose thermometers*.

ISO 1928:1995, *Solid mineral fuels — Determination of gross calorific value by the bomb calorimeter method, and calculation of net calorific value*.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

ISO 6496:—¹⁾, *Animal feeding stuffs — Determination of moisture and volatile matter content*.

ISO 6498:—²⁾, *Animal feeding stuffs — Preparation of test samples*.

1) To be published. (Revision of ISO 6496:1983)

2) To be published. (Revision of ISO 6498:1983)