ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

ARRANGEMENT OF REGULATIONS

Regulation

Preliminary Provisions

1. Purpose of Regulations
2. Application of Regulations

Duties and Requirements

3. Duty to comply with requirements
4. Prohibition of manufacture, importation, offer for sale, sale, storage, donation, disposal, installation or use of microwave oven
5. Category of microwave oven
6. Energy efficiency star rating of microwave oven
7. Voltage, input power or wattage of microwave oven
8. Measurement methods
9. Use of circumvention device
10. Technical documentation
11. Labelling and information requirements

Registration of Microwave Ovens

12. Appliance Energy Efficiency Register
13. Application for registration
14. Consideration of application
15. Grant of application

Duties of Dealers and Suppliers of Microwave Ovens

16. Duty of dealer to keep, maintain and provide technical documentation
17. Duty of supplier to keep, maintain and provide technical documentation
18. Duty of supplier to keep, maintain and provide Product Information Sheet
19. Duty of supplier to provide information for statistical purposes
20. Duty of supplier to ensure accuracy of information
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

21. Access to information on technical documentation and Product Information Sheet
22. Product brochure in respect of microwave oven

Information

23. Public information
24. Information in respect of mail order and other distance selling
25. Obligations of audio or audio-visual broadcasting service provider
26. Obligations of e-commerce platform
27. Misleading information
28. Restriction on disclosure of information

Powers of Enforcement

29. Power of enforcement authority to require technical documentation
30. Power of enforcement authority to inspect microwave oven
31. Power of enforcement authority to detain or seize record or microwave oven
32. Power of enforcement authority to test microwave oven

Detention, Re-Exportation and Seizure

33. Procedure for market surveillance and verification
34. Order to access premises to inspect, detain or seize microwave oven or record
35. Procedure for detention of microwave oven
36. Procedure for re-labelling of detained microwave oven
37. Procedure for re-exportation of imported microwave oven
38. Procedure for seizure of microwave oven

Petition and Compensation

39. Petition against seizure
40. Forfeiture and destruction of seized microwave oven
41. Compensation for loss of microwave oven or record seized
42. Recovery of expenses by enforcement authority
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Miscellaneous Provisions

43. Offences and penalties
44. Interpretation
45. Transitional provision

SCHEDULES

FIRST SCHEDULE
Standards

SECOND SCHEDULE
Minimum Energy Performance Standards

THIRD SCHEDULE
The Label

FOURTH SCHEDULE
Product Information Sheet

FIFTH SCHEDULE
Verification Procedure for Market Surveillance
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

IN exercise of the power conferred on the Minister responsible for Energy by subparagraph (i) of paragraph (a) of subsection (1) of section 56 of the Energy Commission Act, 1997 (Act 541) and on the advice of the Board, these Regulations are made this 28th day of June, 2022.

Preliminary Provisions

Purpose of Regulations

1. The purpose of these Regulations is to promote the efficient use and conservation of energy in the country and mitigate related climate change by

(a) providing for

(i) the enforcement of Standards set out in the First Schedule and the minimum energy performance standards set out in Part One of the Second Schedule;
(ii) the labelling of electric mains-operated microwave ovens;
(iii) supplementary product information on electric mains-operated microwave ovens; and
(iv) the registration of models of microwave ovens in the Appliance Energy Efficiency Register; and

(b) prohibiting the manufacture, importation, offer for sale, sale, storage, donation, disposal, installation or use of a microwave oven that does not meet the minimum energy performance standards set out in Part One of the Second Schedule.

Application of Regulations

2. (1) These Regulations apply to a microwave oven, manufactured in the country or imported into the country for display, sale or use.

(2) These Regulations do not apply to

(a) a microwave oven which cannot accept a load with a

(i) diameter of more than or equal to 200mm; or
(ii) height of more than or equal to 120mm; and
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(b) a microwave oven other than an electric mains-operated microwave oven.

**Duties and Requirements**

**Duty to comply with requirements**

3. (1) A person who manufactures, imports, offers for sale, sells, stores, supplies, distributes, donates or otherwise disposes of a microwave oven for use in the country shall ensure that each model of the microwave oven

(a) is registered with the Commission; and
(b) meets the
   (i) Standards set out in the First Schedule;
   (ii) minimum energy performance standards set out in Part One of the Second Schedule;
   (iii) labelling requirements set out in the Third Schedule; and
   (iv) information requirements set out in the Fourth Schedule.

(2) A person who advertises a microwave oven shall comply with the provisions of Part Five of the Fourth Schedule.

**Prohibition of manufacture, importation, offer for sale, sale, storage, donation, disposal, installation or use of microwave oven**

4. (1) A person shall not manufacture, import, offer for sale, sell, store, donate, or otherwise dispose of, install or use a microwave oven in the country unless the microwave oven meets the

(a) minimum energy performance standards set out in Part One of the Second Schedule; and
(b) requirements
   (i) set out in Part Two of the Second Schedule; and
   (ii) of the Standards.

(2) An enforcement authority shall

(a) detain, cause to be re-exported or seize and destroy a microwave oven imported for use in the country contrary to subregulation (1); or
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(b) seize and destroy a microwave oven manufactured for use in the country contrary to subregulation (1).

Category of microwave oven

5. The category of a microwave oven shall be determined in accordance with the categories set out in Part Two of the Fourth Schedule.

Energy efficiency star rating of microwave oven

6. The energy efficiency star rating of a microwave oven shall be determined in accordance with the ratings set out in Part One of the Second Schedule.

Voltage, input power or wattage of microwave oven

7. The manufacturer of a microwave oven shall ensure that the rated voltage, input power or wattage of that microwave oven is printed conspicuously and displayed on the back of the microwave oven.

Measurement methods

8. The information to be provided pursuant to regulations 10 and 11 shall be obtained by

(a) a reliable, accurate and reproducible measurement which takes into account the recognised state-of-the-art measurements; and

(b) calculation methods

in accordance with the Standards.

Use of circumvention device

9. (1) A manufacturer, an importer or an authorised representative of the manufacturer shall not use a circumvention device during the conduct of a test of a microwave oven.

(2) A person shall not manufacture, import, offer for sale, sell, store, donate, or otherwise dispose of, install or use a microwave oven which is designed to

(a) detect that the microwave oven is being tested by recognising the test conditions or test cycle; or

(b) react specifically by automatically altering the performance of the microwave oven during the test with the aim of reaching a more favourable level for any of the parameters declared
by the manufacturer, importer or authorised representative of the manufacturer, in the technical documentation or included in any other documentation provided.

(3) The energy consumption of a microwave oven and any of the other declared parameters shall not deteriorate after a
(a) software; or
(b) firmware
update, when measured with the same test standard originally used for the declaration of conformity, except with the consent of the Commission and the Standards Authority, before the update.

(4) A manufacturer, an importer or an authorised representative of the manufacturer shall inform the Commission and the Standards Authority in writing, with reasons, prior to an update of the software or firmware.

Technical documentation

10. (1) A person shall not manufacture, import, offer for sale, sell, store, distribute, donate or otherwise dispose of a microwave oven for use in the country, unless that person has provided the Commission with sufficient technical documentation to enable the Commission
   (a) ascertain the accuracy of the information contained
       (i) in the Product Information Sheet; or
       (ii) on the label; and
   (b) register each model of the microwave oven in the Appliance Energy Efficiency Register.

(2) The technical documentation referred to in subregulation (1) shall
   (a) be in the English language;
   (b) include the Product Information Sheet set out in Part One of the Fourth Schedule; and
   (c) contain the information set out in Part Three of the Fourth Schedule marked "Technical Documentation".

(3) The technical documentation shall
   (a) be prepared for each model of microwave oven placed on the market; and
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(b) include

(i) the name and address of the supplier;
(ii) the description of the microwave oven, for purposes of identification;
(iii) the model identifier of the manufacturer;
(iv) the relevant drawings on the main design features of the model and parameters of the microwave oven that affect the energy consumption of the microwave oven;
(v) reports of relevant measurement tests carried out in compliance with the Standards;
(vi) details of calculations, extrapolations and tests carried out to verify the accuracy of calculations;
(vii) the installation and operating instructions; and
(viii) the period within which the model of the microwave oven was manufactured.

Labelling and information requirements

11. (1) A person shall not manufacture, import, offer for sale, sell, store, supply, distribute, donate or otherwise dispose of a microwave oven for use in the country unless the microwave oven and the packaging of the microwave oven meet the following requirements:

(a) the microwave oven shall bear a label
   (i) in the form set out in the Third Schedule; and
   (ii) placed on the microwave oven;

(b) the information in respect of the microwave oven indicated on the packaging of the microwave oven shall be in the English language;

(c) the Product Information Sheet in respect of the microwave oven shall be as set out in Part One of the Fourth Schedule;

(d) the label on the packaging containing a microwave oven shall
   (i) contain the information set out in the Third Schedule; and
   (ii) be printed in colour;
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(e) the labels on the microwave oven and the packaging of the microwave oven shall include the following information:
   (i) the Quick Response Code;
   (ii) the name or trade mark of the manufacturer;
   (iii) the model identifier of the manufacturer;
   (iv) the input power or wattage of the microwave oven, measured in accordance with the test procedures specified in the Standards;
   (v) the year of manufacture;
   (vi) the type of microwave oven;
   (vii) a one-star to seven-star energy efficiency rating in which the ascending number of stars represents a higher energy efficiency determined in accordance with Table 1.2 in the Second Schedule, where the energy consumption per cooking cycle is determined in accordance with the test procedures and calculations of the Standards and the Second Schedule respectively;
   (viii) the number of stars corresponding to the star-rating class in relation to the requirements specified in paragraph (b) of regulation 3 and shaded in black; and
   (ix) the country of origin or manufacture;

(f) the labels on the microwave oven shall be printed in colour on a waterproof material and pasted conspicuously on the microwave oven;

(g) the background of a label printed or pasted on each packaging containing the microwave oven shall be gold in colour;

(h) all the stars on the label of the microwave oven shall be shaded in black; and

(i) the text on the label of the microwave oven shall be black in colour.

(2) Despite regulation 21, an update to the Standards shall take precedence over the requirements specified in paragraph (e) of subregulation (1) and Part Two of the Second Schedule.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(3) Where
(a) a side of the packaging is not large enough to contain a label and the blank border, or
(b) a label would cover more than fifty per cent of the surface area of the largest side of a packaging
the label and the blank border shall be reduced to not less than forty per cent of the largest side of the packaging and pasted on the largest side of the packaging.

(4) A person shall not remove the label on a microwave oven or the packaging containing a microwave oven before the first retail purchase of the microwave oven.

(5) For the purposes of this regulation, “first retail purchase” means the purchase of a microwave oven by an end user.

Registration of Microwave Ovens

Appliance Energy Efficiency Register
12. (1) The Commission shall establish, keep and maintain an Appliance Energy Efficiency Register.

(2) The Appliance Energy Efficiency Register shall contain the information specified in subregulation (5) of regulation 13.

Application for registration
13. (1) A person who
(a) manufactures a microwave oven in the country; or
(b) imports a microwave oven into the country
for use in the country shall, prior to the manufacture or importation, ensure that each model of the microwave oven is registered with the Commission.

(2) A person who
(a) manufactures a microwave oven in the country; or
(b) imports a microwave oven into the country
for use in the country shall apply to the Commission for registration of the microwave oven.
(3) An application for registration under subregulation (2) shall be made in writing or electronically on the website of the Commission and accompanied with the prescribed fee.

(4) An application for registration shall be accompanied with a test report from an accredited test laboratory that demonstrates that

(a) the microwave oven meets the minimum energy performance standards set out in the Second Schedule; and

(b) the test report corresponds to the energy consumption that is provided on the energy efficiency label of the microwave oven.

(5) The following information shall be provided for each registration of a model of a microwave oven:

(a) the brand or trademark, if any, used in connection with a supply of the model;

(b) the model identifier issued by the manufacturer for each model covered by the registration;

(c) the Product Information Sheet of the model;

(d) the date the registration takes effect;

(e) a unique identifier for the registration issued by the Commission;

(f) the names and contact details of the applicant and contact person in relation to the registration;

(g) if the model is to be registered as a replacement model of an earlier registered model, that fact and details to identify the replaced model, including the date the replacement was made;

(h) if a model to be registered is affected by a replacement, that fact and details to identify the replaced model and the replacement model, including the date the replacement was made;

(i) any information specified in these Regulations in relation to that model of microwave oven; and

(j) any other information the Commission may consider appropriate.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Consideration of application
14. (1) The Commission shall, on receipt of an application for registration of a microwave oven, consider the application.

(2) The Commission shall, in considering the application, have regard to the requirements specified in subregulation (5) of regulation 13.

Grant of application
15. (1) The Commission may, within fourteen days after receipt of an application, grant or refuse an application.

(2) Where the Commission decides to grant an application, the Commission shall

(a) within three days after the date of the decision inform the applicant, in writing or electronically as the case may be, of the decision; and

(b) enter the information specified in subregulation (5) of regulation 13 in the Appliance Energy Efficiency Register.

(3) Where the Commission refuses to grant an application, the Commission shall within three days after the date of the decision communicate to the applicant, in writing or electronically as the case may be,

(a) the reason for the refusal; and

(b) the applicable Standards the model of the microwave oven is required to meet.

Duties of Dealers and Suppliers of Microwave Ovens

Duty of dealer to keep, maintain and provide technical documentation
16. (1) A dealer shall keep and maintain technical documentation in respect of a model of a microwave oven for a period of not less than two years after the date of manufacture or importation.

(2) A dealer shall, within two days after a request by an enforcement authority, provide the enforcement authority with technical documentation in respect of a microwave oven for inspection.

(3) Where a dealer fails to provide technical documentation in respect of a microwave oven within two days after the request, the enforcement authority shall detain the microwave oven.
(4) A dealer shall ensure that
(a) each microwave oven, at the point of sale, including at trade fairs, bears the label provided by a supplier in accordance with regulation 3, with the label being displayed conspicuously on the face of the microwave oven;
(b) in the event of distance selling, the label and Product Information Sheet are provided in accordance with the Third and Fourth Schedules;
(c) an audio advertisement, including radio and local information broadcast network, on a specific model of a microwave oven, where the brand, capacity, size, category or price is mentioned, contains information on the energy efficiency class and the range of energy efficiency classes available in accordance with Part Five of the Fourth Schedule;
(d) a visual advertisement for a specific model of a microwave oven, including an advertisement on the internet, contains information on the energy efficiency class and the range of energy efficiency classes available on the label, in accordance with Part Five of the Fourth Schedule; and
(e) a technical promotional material concerning a specific model of microwave oven, including technical promotional material on the internet, which describes the specific technical parameters of the microwave oven includes
   (i) the energy efficiency class of that model; and
   (ii) the range of energy efficiency classes, available on the label
in accordance with Part Five of the Fourth Schedule.

Duty of supplier to keep, maintain and provide technical documentation
17. (1) A supplier shall keep and maintain technical documentation in respect of each model of microwave oven for a period of not less than two years after the date of manufacture or importation.

(2) A supplier shall, on request by an enforcement authority, provide the enforcement authority with technical documentation of the microwave oven for inspection.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(3) Where a supplier fails to provide technical documentation in respect of a microwave oven within two days after the request, the enforcement authority shall detain the microwave oven.

Duty of supplier to keep, maintain and provide Product Information Sheet

18. (1) A supplier shall keep and maintain in the possession of the supplier a Product Information Sheet in respect of each microwave oven in the form set out in Part One of the Fourth Schedule.

(2) A supplier shall, on request by an enforcement authority, provide that enforcement authority with a Product Information Sheet which shall be in the
   (a) English language; and
   (b) form set out in Part One of the Fourth Schedule.

Duty of supplier to provide information for statistical purposes

19. (1) A person who manufactures in the country, imports into the country or exports out of the country a microwave oven or an assembly of components that incorporates a microwave oven shall provide the Commission with the following information not later than four months after the end of each year:

   (a) the number of microwave ovens of each model that the person manufactured, exported or imported into the country in the relevant year;
   (b) the number of microwave ovens of each model that the person sold in the country in the relevant year;
   (c) the number of microwave ovens of each model that the person exported from the country in the relevant year;
   (d) the name of each model that the person discontinued
      (i) manufacturing in the relevant year;
      (ii) exporting in the relevant year; or
      (iii) importing in the relevant year; and
   (f) a copy of any existing test report, or other energy performance data specified by the Commission, for each model specified under paragraph (d).
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(2) Upon a written request by the Commission, a person who manufactures a microwave oven for use in the country or imports a microwave oven into the country shall provide the following information to the Commission not later than forty days after receiving the request:
   (a) the number of microwave ovens in each product class specified by the Commission that the person sold to a purchaser in the country in each of the preceding three years; and
   (b) the energy performance characteristics of the microwave ovens as specified in the request.

Duty of supplier to ensure accuracy of information
20. (1) A supplier shall ensure that the information indicated on a
   (a) Product Information Sheet; or
   (b) label
in respect of a microwave oven is accurate.
   (2) The duty imposed on a supplier under subregulation (1) does not affect any other right of action which a person may have by law against a person with respect to the inaccuracy of information on a Product Information Sheet or on a label.

Access to information on technical documentation and Product Information Sheet
21. (1) The information required under regulations 10, 11, 16, 17 and 18 shall be obtained in accordance with the test procedures required by the Standards.
   (2) Information obtained in a manner other than in accordance with subregulation (1) shall, for the purposes of these Regulations, be invalid.

Product brochure in respect of microwave oven
22. Where a supplier provides a product brochure in respect of a microwave oven, the brochure shall contain a Product Information Sheet which shall be in the
   (a) English language; and
   (b) form set out in Part One of the Fourth Schedule.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Information

Public information

23. (1) The information provided by a supplier on the Product Information Sheet or on a label of a microwave oven is deemed public information.

(2) A supplier is deemed to have consented to the publication of the information indicated on a Product Information Sheet or label in respect of a microwave oven.

Information in respect of mail order and other distance selling

24. (1) Where a person offers a microwave oven for sale to another person in the country through a medium of communication including a mail order or any other distance selling medium, that person shall provide information in respect of the microwave oven.

(2) The information referred to in subregulation (1) shall

(a) be in the English language;
(b) include the product registration number assigned by the Commission upon registration in the Appliance Energy Efficiency Register;
(c) include the information set out in Part Four of the Fourth Schedule; and
(d) be written in a manner that is legible.

Obligations of audio or audio-visual broadcasting service provider

25. Where an audio or audio-visual broadcasting service provider advertises a microwave oven, and the information in the advertisement includes the brand, model, size, price and any other information that is specific to a particular model, that service provider shall ensure that

(a) the advertisement has been vetted and approved by the Commission; and

(b) the advertisement includes

(i) information on the energy efficiency star rating of the microwave oven;

(ii) a statement that the advertisement has been vetted and approved by the Commission; and
(iii) any other information required under Part Five of the Fourth Schedule.

Obligations of e-commerce platform

26. (1) A person shall not offer for sale, sell, supply, distribute or otherwise dispose of a microwave oven through a promotion on the internet, unless

(a) the energy efficiency rating of the microwave oven is posted next to the price of the microwave oven; and

(b) the label of the microwave oven is made available to consumers in the same medium of communication.

(2) Where an e-commerce service provider allows the direct sale of a microwave oven through the website of the service provider, the service provider shall

(a) enable the display of the
   (i) electronic label; and
   (ii) electronic Product Information Sheet
   provided by the dealer on the display mechanism in accordance with the provisions of Part Six of the Fourth Schedule; and

(b) inform the dealer of the obligation to display the electronic label and electronic Product Information Sheet.

Misleading information

27. (1) A person shall not display a label, mark, symbol or inscription which relates to the energy consumption of a microwave oven if the display is likely to be

(a) deceptive;
(b) misleading; or
(c) false.

(2) A person shall not broadcast an advertisement relating to the energy performance of a microwave oven if the information in the advertisement is likely to be

(a) deceptive;
(b) misleading; or
(c) false.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(3) Subregulations (1) and (2) do not apply to
(a) a label;
(b) a mark;
(c) a symbol; or
(d) an inscription
displayed under an environmental labelling scheme or an endorsement labelling scheme.

Restriction on disclosure of information

28. (1) An enforcement authority shall not disclose information which consists of a
(a) secret manufacturing process; or
(b) trade secret
that was obtained by that enforcement authority in the course of the exercise of a power or duty conferred on the enforcement authority by these Regulations.

(2) Despite subregulation (1), an enforcement authority may disclose information if
(a) the information is public information; or
(b) the disclosure is made
   (i) for the purpose of facilitating the exercise of power by an enforcement authority under these Regulations or any other enactment;
   (ii) in connection with the investigation of an offence; or
   (iii) for the purpose of a civil or criminal proceeding.

Powers of Enforcement

Power of enforcement authority to require technical documentation

29. Where an enforcement authority suspects that the information given
(a) in a Product Information Sheet; or
(b) on a label
in respect of a microwave oven is incorrect, that enforcement authority may, by notice served on the supplier or importer of the microwave oven, require the supplier or importer to furnish the enforcement authority with the technical documentation referred to in regulation 10 within the period stipulated in the notice.
Power of enforcement authority to inspect microwave oven

30. An enforcement authority may, at any reasonable time, enter any premises to inspect a microwave oven if the enforcement authority has reason to believe that the premises are being used for a purpose in contravention of these Regulations.

Power of enforcement authority to detain or seize record or microwave oven

31. (1) Subject to these Regulations, where an enforcement authority has reasonable cause to suspect that an offence has been committed or is being committed, that enforcement authority may

(a) at any reasonable time enter premises other than a dwelling place, and conduct an inspection in accordance with subsection (3) of section 52 of the Act;
(b) require a person engaged in a business or employed in connection with a business to produce a record in respect of a microwave oven;
(c) detain or seize a microwave oven that is
(i) not labelled;
(ii) not properly labelled; or
(iii) labelled in a deceptive or misleading manner;
(d) detain or seize a microwave oven that is imported without technical documentation which justifies the label affixed on the microwave oven;
(e) detain or seize a microwave oven to enable tests to be carried out;
(f) detain or seize a record to be used as evidence in proceedings in respect of an offence under these Regulations;
(g) cause a container to be opened for the purpose of inspection;
(h) break open a container, where implementation of paragraph (g) is not practicable; or
(i) detain or seize a microwave oven if the model is not registered in the Appliance Energy Efficiency Register.

(2) For the purposes of paragraphs (b) and (f) of subregulation (1), the enforcement authority may request for information stored electronically to be made available to the enforcement authority in printed form.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Power of enforcement authority to test microwave oven

32. (1) An enforcement authority may
(a) obtain, remove and test a microwave oven; or
(b) order the testing of a microwave oven
to ascertain whether a provision of these Regulations has been contravened.

(2) A person who suspects that a microwave oven offered for sale does not comply with the provisions of these Regulations may lodge a complaint with an enforcement authority.

(3) The enforcement authority may, upon receipt of a complaint under subregulation (2), detain and test the microwave oven.

(4) The test to be conducted in respect of a microwave oven purchased, obtained or detained under regulation 31 shall be carried out in accordance with the test procedures required by the Standards.

Detention, Re-Exportation and Seizure

Procedure for market surveillance and verification

33. (1) Despite regulation 32, the Commission and the Standards Authority shall conduct market surveillance to ascertain whether a microwave oven on the market conforms to these Regulations.

(2) The Commission and the Standards Authority shall apply the verification procedure specified in the Fifth Schedule to conduct the market surveillance.

Order to access premises to inspect, detain or seize microwave oven or record

34. (1) Where
(a) an enforcement authority is refused entry to premises;
(b) a notification to enter premises would defeat the purpose of the entry;
(c) the premises to be entered are unoccupied; or
(d) the occupier of premises to be entered is temporarily absent
the enforcement authority may apply to a court for an order to enter the premises to inspect, detain or seize a microwave oven or record if the enforcement authority has reasonable grounds to believe that a microwave oven or record on the premises may assist in the disclosure of evidence of the commission of an offence under these Regulations.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Procedure for detention of microwave oven

35. (1) An enforcement authority that exercises a power of detention under these Regulations shall, immediately give a written notice to the person against whom the power has been exercised.

(2) The written notice shall state

(a) the microwave oven that has been detained; and

(b) the reason for the detention.

(3) Where an enforcement authority detains a microwave oven, that microwave oven may be kept in a warehouse or other secure location reserved for the purpose.

Procedure for re-labelling of detained microwave oven

36. (1) Subject to these Regulations, where an enforcement authority detains a microwave oven under paragraph (e) of subregulation (1) of regulation 31, the enforcement authority shall

(a) within two days after the detention, submit a sample of the microwave oven for testing; and

(b) within two days after receipt of the test results, give a notice in writing to the supplier of the microwave oven to properly label the microwave oven if the minimum energy performance standards have been complied with.

(2) The notice under paragraph (b) of subregulation (1) shall require a microwave oven to be re-labelled in the required manner or exported out of the country within twenty-eight days.

(3) Where a supplier is required under subregulation (2), to re-label a microwave oven, the supplier shall re-label the microwave oven under the supervision of an officer authorised for the purpose by the Commission or the Standards Authority.

(4) Where a supplier fails to

(a) re-label the microwave oven; or

(b) export the microwave oven within twenty-eight days after the notice given under paragraph (b) of subregulation (1), the Commission shall, in consultation with the Standards Authority, destroy the microwave oven in a manner that the Commission may determine.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Procedure for re-exportation of imported microwave oven
37. (1) An enforcement authority that exercises a power of detention or seizure under these Regulations shall, within seven days after the detention or seizure, give an order in writing to the person against whom the power has been exercised to re-export the microwave oven.

(2) The order referred to in subregulation (1) shall state
   (a) the microwave oven to be re-exported;
   (b) the reason for the order;
   (c) the period within which the microwave oven is to be re-exported; and
   (d) the fact that the supplier shall be responsible for the cost associated with the re-export.

(3) Where a microwave oven is kept within premises that are under the control of the owner of the microwave oven, the owner shall pay a security deposit against any breach of the re-exportation order.

(4) A security deposit under subregulation (3) shall be forfeited in the event of a breach of the re-exportation order, including the sale or destruction of a microwave oven which has been ordered to be re-exported.

(5) Where a person fails to pay a security deposit imposed under the subregulation (3), the Commission may recover the amount imposed as a civil debt.

Procedure for seizure of microwave oven
38. (1) An enforcement authority that exercises a power of seizure under these Regulations shall, within seven days after the seizure, give a written notice to the person against whom the power has been exercised.

(2) The written notice under subregulation (1) shall state
   (a) the microwave oven that has been seized;
   (b) the reason for the seizure; and
   (c) the venue and the period within which a petition against the seizure may be brought under regulation 39.

(3) Where an enforcement authority seizes a microwave oven, that microwave oven may be kept in a warehouse or other secure location reserved for the purpose.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(4) The owner of the microwave oven may be required to pay a deposit to cover the cost of destruction, if the microwave oven does not meet the minimum energy performance standards.

(5) Where a microwave oven is kept within premises that are under the control of the owner of the microwave oven, the owner shall pay a security deposit against any breach of the seizure order.

(6) A security deposit under subregulation (5) shall be forfeited in the event of a breach of the seizure order, including the sale or destruction of a microwave oven which has been seized.

(7) Where a person fails to pay a security deposit imposed under subregulation (5), the Commission may recover the amount imposed as a civil debt.

Petition and Compensation

Petition against seizure

39. (1) Subject to these Regulations, a person whose microwave oven is seized may, within seven days after receipt of the written notice specified in subregulation (1) of regulation 38, petition the Executive Secretary for the release of the seized microwave oven.

(2) The Executive Secretary shall, within seven days after the receipt of a petition under subregulation (1),

(a) confirm the seizure; or

(b) order the release of the seized microwave oven to the petitioner on a specific day.

(3) A person who is dissatisfied with a decision of the Executive Secretary under subregulation (2) may appeal to the Board within seven days after the receipt of the decision.

(4) The Board shall within thirty days after the receipt of an appeal under subregulation (3)

(a) consult the Standards Authority; and

(b) take a decision on the appeal.

(5) The Board may release the seized microwave oven to the petitioner only if the Commission and the Standards Authority fail to prove that an offence under these Regulations has been committed.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(6) A person who is dissatisfied with
   (a) a decision of the Board under subregulation (4) may, within fourteen days after the decision; or
   (b) the failure of the Board to make a decision within thirty days after receipt of the appeal may, within fourteen days of the failure
apply to the court.

Forfeiture and destruction of seized microwave oven

40. (1) Where an appeal to the Board under subregulation (3) of regulation 39 is not successful, the enforcement authority shall, within twenty-eight days after the decision of the Board, notify the owner of the microwave oven of the forfeiture and date of destruction of the seized microwave oven.

   (2) The Commission may, in consultation with the Standards Authority, destroy a forfeited microwave oven in a manner that the Commission may determine.

   (3) Where under subregulation (6) of regulation 39, the court upholds or affirms the decision of the Board to forfeit and destroy the microwave oven, the Commission shall destroy the microwave oven within the period given by the court.

Compensation for loss of microwave oven or record seized

41. (1) Where an enforcement authority exercises power under these Regulations to seize a microwave oven or record, that enforcement authority is liable to pay compensation to the owner of the microwave oven or record for any loss or damage caused by the exercise of the power, if

   (a) these Regulations have not been contravened in relation to the microwave oven or record; and
   (b) the loss or damage is not attributable to the neglect or the fault of the owner but an official of the Commission.

   (2) Paragraph (b) of subregulation (1) does not apply in a case of force majeure.

   (3) The compensation payable under subregulation (1) for a loss or damage shall not exceed the value of the microwave oven or record.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(4) A dispute as to the
   (a) right to compensation; or
   (b) amount of compensation payable to a person under subregulation (1),
shall be determined in the first instance by arbitration in accordance with the Alternative Dispute Resolution Act, 2010 (Act 798).

Recovery of expenses by enforcement authority
42. (1) Where an enforcement authority
   (a) seizes;
   (b) tests; or
   (c) supervises the re-labelling or destruction of
a microwave oven, that enforcement authority may surcharge the dealer or supplier of the microwave oven for the expenses incurred for the seizure, testing or supervision.

   (2) Despite subregulation (1), where a court convicts a person of an offence in respect of the contravention of a provision of these Regulations, the court may, in addition to any order that the court may make as to costs and expenses, order the person convicted to reimburse the enforcement authority for the expenditure incurred by the enforcement authority in connection with the seizure.

Miscellaneous Provisions

Offences and penalties
43. (1) A person who
   (a) manufactures, imports, offers for sale, sells, stores, advertises, distributes or otherwise disposes of a microwave oven that
      (i) does not meet a requirement in respect of the minimum energy performance standards contrary to regulation 3;
      (ii) is not accompanied by the required technical documentation contrary to regulation 10;
      (iii) is not labelled or properly labelled contrary to regulation 11; or
(iv) is labelled in a deceptive or misleading manner contrary to regulation 27;
(b) uses a circumvention device contrary to regulation 9;
(c) fails to comply with a labelling requirement contrary to regulation 11;
(d) fails to provide technical documentation contrary to regulation 10, 16 or 17;
(e) fails to register a model of a microwave oven contrary to regulation 13;
(f) fails to provide a Product Information Sheet contrary to regulation 18;
(g) fails to provide information on a microwave oven contrary to regulation 19;
(h) provides inaccurate information contrary to regulation 20;
(i) advertises a microwave oven without providing accurate information on the energy efficiency star rating of the microwave oven and the range of energy efficiency of the microwave oven available contrary to regulation 25;
(j) offers for sale or sells a microwave oven over the internet or other distance selling medium without providing the information required contrary to regulation 24 or 26;
(k) provides misleading information contrary to regulation 27;
(l) obstructs or interferes with an enforcement authority in the exercise of the powers of that enforcement authority contrary to regulation 31;
(m) fails to comply with the requirements for re-labelling contrary to regulation 36; or
(n) violates a seizure order or notice contrary to regulation 38 commits an offence and is liable on summary conviction to a fine of not less than one hundred and twenty-five penalty units and not more than two hundred and fifty penalty units or to a term of imprisonment of not less than six months and not more than twelve months or to both.

(2) A person who commits a second or subsequent offence under subregulation (1) after an earlier conviction under subregulation (1) is liable on summary conviction to a fine of not less than two hundred and...
fifty penalty units and not more than five hundred penalty units or to a term of imprisonment of not less than twelve months and not more than twenty-four months or to both.

(3) Where an offence under these Regulations is committed by a body corporate or by a member of a partnership or other firm, every director or officer of that body corporate or any member of the partnership or other person concerned with the management of the firm shall be deemed to have committed that offence and is liable, on summary conviction, to a fine of not less than five hundred penalty units and not more than one thousand penalty units, and is in addition liable to the payment of compensation for the damage resulting from the breach.

(4) A person shall not be convicted of an offence under subregulation (3), if it is proved that

(a) the person exercised due diligence to secure compliance with the provisions of these Regulations; and

(b) the offence was committed without the knowledge, consent or connivance of that person.

Interpretation

44. In these Regulations, unless the context otherwise requires,

“accredited test laboratory” means a test laboratory that is recognised by the Standards Authority for laboratory testing and product certification;

“appliance” means a device or machine for performing a specific task;

“Appliance Energy Efficiency Register” means an official record, kept and maintained by the Commission on energy efficiency information in respect of models of electrical appliances that have been certified by the Commission and the Standards Authority for use in Ghana;

“audio or audio-visual broadcasting service provider” means a person who provides a service which delivers radio programmes or programmes with hearing and sight components to persons with equipment appropriate for receiving that service, whether the delivery is effected by
means of or uses the radio frequency spectrum, cable, optical fibre, satellite, internet radio via streaming media on the internet, or any other means or a combination of those means intended to reach a wide audience;

“circumvention device” means any control, control device, software, component or part that alters the operating characteristics of a microwave oven during a test procedure, resulting in measurements that are unrepresentative of the true characteristics of the microwave oven that may occur during normal use under comparable conditions;

“combination microwave oven” means an oven in which microwave energy is combined simultaneously or sequentially with thermal energy;

“container” means a receptacle or enclosure for holding a product for storage, packaging and shipping;

“court” means a court of competent jurisdiction;

“dealer” means a retailer or other person who displays, offers for sale or sells a microwave oven to an end user;

“default”, referring to a specific feature or setting, means the value of a specific feature as set at the factory and available when the customer uses the product for the first time and after performing a ‘reset to factory settings’ action, if allowed by the product;

“distance selling” means the sale of goods or services without the buyer and seller being physically present simultaneously;

“dwelling place” means place of residence;

“electric mains-operated microwave oven” means a microwave oven that operates on electricity supply from the grid of 230(± 10%) volts of alternating current at 50 Hz;

“electronic Product Information Sheet” means a document containing the following information in electronic format:

(a) basic product information;

(b) energy label information; and

(c) special features and characteristics;
“end user” means the first user of a microwave oven;
“endorsement labelling scheme” includes a voluntary labelling scheme that guarantees the performance standards of the microwave oven that are equal to or exceed the minimum threshold established by a recognised advisory body;
“energy efficiency rating” means the ratio of the lighting service time to the effective power input for a set of rating conditions specified in the Standards;
“enforcement authority” means
(a) an authorised officer of the Commission;
(b) an authorised officer of the Standards Authority;
(c) an authorised officer of the Customs Division of the Ghana Revenue Authority;
(d) an authorised officer of the Police Service; or
(e) any other authorised person designated by the Customs Division of the Ghana Revenue Authority, the Commission or the Standards Authority to carry out inspections for the purposes of these Regulations;
“environmental labelling scheme” means a voluntary labelling scheme that provides detailed information on the environment in respect of the performance characteristics of a microwave oven;
“equivalent model” means a model which has the same technical characteristics relevant for the technical information to be provided, but which is placed on the market or put into service by the same manufacturer, importer or authorised representative as another model with a different model identifier;
“GS” means Ghana Standards;
“importer” means a person who places a microwave oven from a foreign country on the Ghanaian market and supplies that microwave oven for use;
“information or status display” means a continuous function providing information or indicating the status of the equipment on a display, including clocks;
“internal power supply” means a component designed to convert AC voltage from mains to DC voltage for the purpose of powering the microwave oven;

“ISM frequency band” means industrial, scientific and medical radio frequency band;

“label” means a material attached to a microwave oven the inscription of which contains information on the energy consumption of the microwave oven;

“microwave oven” means an oven that utilises electromagnetic energy in one or several of the industrial, scientific and medical radio frequency bands between 300Hz and 30GHz for heating food and beverages in a cavity;

“minimum energy performance standards” mean a set of procedures and regulations that prescribe the minimum allowable values of energy efficiency or energy performance of manufactured products;

“model identifier” means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trademark of the same name of the manufacturer, importer or authorised representative;

“off-mode” means the power demand level in the low power mode which cannot be switched off or influenced by a user, other than through the movement of a mechanical switch, and which may persist for an indefinite period of time when the appliance is connected to the main electricity supply and used in accordance with the instructions of the manufacturer;

“on-mode” means the condition where the microwave oven is connected to the mains power source and produces sound and picture;

“organic light emitting diode (OLED)” means a technology in which light is produced from a solid state device embodying a pn junction of organic material which emits optical radiation when excited by electric current;

“point of sale” means the place at which a retail transaction is carried out;
“premises” means land and any building, store, shop, apartment, or other structure on the land used for the storage of a microwave oven;

“product brochure” includes a pamphlet or booklet that contains introductory information about a product;

“Product Information Sheet” means a standard table of information related to a microwave oven;

“Quick Response Code” means a matrix barcode included on the energy label of a product model that links to the information of the model in the public part of the product database;

“rated voltage” means the voltage marked on a microwave oven in volts;

“rating plate” means a name plate that indicates the measurable performance capability of a microwave oven;

“reactivation function” means a function facilitating the activation of other modes, including on-mode, by remote switch including remote control, internal sensor, timer to a condition providing additional functions, including on-mode;

“record” includes a book, document, label, mark, symbol, inscription or information in electronic form;

“sale” means the exchange of a product for consideration, including hire purchase, credit sale and purchase by instalment;

“Standards” means quality specifications for microwave ovens as stipulated in the First Schedule;

“Standards Authority” means the Standards Authority established under the Standards Authority Act, 1973 (NRCD 173);

“standby-mode” means a condition where an equipment
(a) is connected to the mains power source;
(b) depends on energy input from the mains power source to function properly; and
(c) offers the following functions only, which may persist for an indefinite time:
(i) reactivation function;
(ii) reactivation function and an indication of enabled reactivation function; or
(ii) information or status display;

"supplier" means a person or organisation that provides a product and includes

(a) a manufacturer or the authorised representative of a manufacturer resident in the country; and
(b) an importer or the person who introduces a microwave oven on the Ghanaian market;

"supply" includes an offer to supply, contract to supply and an advertisement for the supply of a microwave oven but excludes the exhibition at a trade fair of a microwave oven that is prohibited by these Regulations;

"trade secret" means a secret device or technique used by a company in manufacturing a product of the company;

"wattage" means the power marked on the microwave oven, in watts (W); and

"year" means the period from 1st January to 31st December.

**Transitional provision**

45. A person who, before the coming into force of these Regulations, has

(a) manufactured in the country; or
(b) imported into the country

a microwave oven that does not comply with these Regulations, shall, within one year after the coming into force of these Regulations, sell, distribute, donate or otherwise dispose of that microwave oven.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND 
LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

SCHEDULES

FIRST SCHEDULE
(regulations 1(a)(i) and 3(l)(b)(i), 44)

STANDARDS

1. GS IEC 60705: 2010 Household microwave ovens – methods for 
   measuring performance.

2. GS IEC 60705 - AMD 1:2014 Household microwave ovens – methods 
   for measuring performance.

3. GS IEC 60705 - AMD 2:2018 Household microwave ovens – methods 
   for measuring performance.

   of standby power.

5. GS IEC 60335-2-25: 2015 Household and similar electrical appliances 
   – Safety – Part 2-25: Particular requirements for Household micro-
   wave ovens.

6. GS IEC 60335-2-90: 2015 Household and similar electrical appliances 
   – Safety – Part 2-90: Particular requirements for Commercial 
   microwave ovens.

7. GS IEC 60704-2-10: 2011 Household and similar electrical appliances 
   – Test code for determination of airborne acoustical noise – Part 2-
   10: Particular requirements for microwave ovens.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

SECOND SCHEDULE
(regulations 1(a)(i), 1(b), 3(1)(b)(ii), 4 (1)(a), 4 (1)(b)(i), 6, 11(1)(e)(vii), 11(2) and 13(4)(a))

MINIMUM ENERGY PERFORMANCE STANDARDS
PART ONE
(regulations 1(a)(i), 1(b), 3(1)(b)(ii), 4(1)(a) and 6)

1. Energy Efficiency Specifications
The energy efficiency performance of a microwave oven is specified in terms of the following performance parameters:
   (a) microwave oven function efficiency measured and reported in percentages (%);
   (b) power consumption in Standby mode measured and reported in Watt (W); and
   (c) energy consumption per cooking cycle measured and reported in Watt-hours (Wh).
All the three parameters are relevant in the energy efficiency labelling programme in the country that comprises of a combination of minimum performance requirement specifications and the energy efficiency star rating classification for microwave ovens based on test methods and measurements under standard tests conditions set out in the Standards provided in the First Schedule.

2. Minimum Performance Requirements
The minimum performance requirements of a microwave oven manufactured, imported or offered for sale in the country are provided in Table 1.1.

Table 1.1: Minimum performance Requirement for microwave oven

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microwave oven function efficiency</td>
<td>≥54%</td>
</tr>
<tr>
<td>Power consumption in standby mode</td>
<td>≤0.6 W</td>
</tr>
</tbody>
</table>
Microwave ovens that fail to meet the requirements of Table 1.1 shall not be
(a) star-rated in accordance with Table 1.2;
(b) eligible for manufacture or importation; or
(c) offered for sale in the country.

3. Energy Efficiency Star Rating of Microwave Ovens
The energy efficiency class for a microwave oven that meets the requirements of Table 1.1 is determined on the basis of a 7-Star rating of the energy consumption per cooking cycle (W_{final}) parameter measured in Watt-hour (Wh) as set out in Table 1.2.

<table>
<thead>
<tr>
<th>Energy Efficiency Star Rating</th>
<th>Energy Consumption per cooking cycle, W_{final} (Wh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-star</td>
<td>W_{final} ≤ 40</td>
</tr>
<tr>
<td>6-star</td>
<td>40&lt; W_{final} ≤ 42</td>
</tr>
<tr>
<td>5-star</td>
<td>42&lt; W_{final} ≤ 44</td>
</tr>
<tr>
<td>4-star</td>
<td>44&lt; W_{final} ≤ 48</td>
</tr>
<tr>
<td>3-star</td>
<td>48&lt; W_{final} ≤ 52</td>
</tr>
<tr>
<td>2-star</td>
<td>52&lt; W_{final} ≤ 56</td>
</tr>
<tr>
<td>1-star</td>
<td>56&lt; W_{final} ≤ 60</td>
</tr>
</tbody>
</table>

PART TWO
(regulations 4(1)(b)(i), and 11(2))

MEASUREMENTS AND CALCULATIONS
1. Calculations for Microwave oven function efficiency
The calculation of the function efficiency parameter of a microwave oven is determined following test measurement results obtained for microwave power output and energy consumption in accordance with the methods
and standard test conditions specified in the relevant Standards in the First Schedule. The efficiency of the microwave oven, expressed in percentage, is calculated using the following formula:

\[ \eta = \frac{P \times t}{W_{in}} \times 100 \]

where
- \( \eta \) = Microwave Function Efficiency (%)  
- \( W_{in} \) = Input Energy (Wh) including the magnetron filament heating-up energy consumption  
- \( t \) = the heating time, in seconds, excluding the magnetron heating filament heating-up time.  
- \( P \) = Microwave Power (W) output calculated from the following formula using observed results from test measurements:

\[ P = \frac{[4.187 \times m_w (T_i - T_0) + 0.55 \times m_c (T_i - T_0)]}{t} \]

where
- \( m_w \) = mass of the water in grams (g)  
- \( m_c \) = mass of the container in grams (g)  
- \( T_a \) = the ambient temperature (°C)  
- \( T_0 \) = the initial temperature of the water (°C)  
- \( T_i \) = the final temperature of the water (°C)  
- \( t \) = the heating time, in seconds, excluding the magnetron heating filament heating-up time.

2. Calculations for Energy Consumption per cooking cycle
The measurement of energy consumption shall be performed in accordance with test methods and standard conditions set out in the Standards. The final energy consumption per cooking cycle, \( W_{final} \), is calculated from the following formula:

\[ W_{final} = (3 \times W_{50s}) + (6 \times W_{50m}) + (2 \times W_{50i}) \]


where

\[ W_{50s} = \text{Energy Consumption for small load (W50s), in Wh} \]
\[ W_{50m} = \text{Energy Consumption for medium load (W50m), in Wh} \]
\[ W_{50l} = \text{Energy Consumption for large load (W50l) in Wh} \]
\[ W_{50} = \text{Energy Consumption required to heat up the amount of water by 50 Kelvin for small (s), medium(m) and large (l) load as noted in the test measurement results.} \]

3. Determination of Power consumption in standby mode
Test methodology adopted for measurement of a microwave oven Standby power mode consumption shall be as per the Standards in the First Schedule having configured the appliance for operation in standby mode. Key parameters and test conditions that shall be observed under this test are provided in Table 2.1.

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Parameter</th>
<th>Observed values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Product mode</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Average power</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Uncertainty of the result due to measuring instrument (%)</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Measurement method used</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Sampling interval</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Total duration of measurement (min)</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Stability period (min)</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Energy (Wh)</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Ambient temperature conditions (°C)</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Total harmonic distortion</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Accumulated energy (Wh) and period of measurement (sec/min/hr)</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Description of how appliance mode was selected and programmed</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Sequence of events to reach the mode where equipment automatically changes mode, if any</td>
<td></td>
</tr>
</tbody>
</table>
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

THIRD SCHEDULE
(regulations 3(1)(b)(iii), 11(1)(a)(i), 11(1)(d)(i), and 16(4)(b))

THE LABEL

1. Label design
The design of the label shall be in accordance with Figure 1 and shall include the information required in the Notes to Figure 1.

![Label Design](image)

Figure 1: The Label of microwave oven

2. Notes to Figure 1
The following notes define the information to be included on the label:
(a) Quick Response Code;
ENGLISH COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(b) type of microwave oven as set out in Part Two of the Fourth Schedule;
(c) name or trade mark of the supplier;
(d) model identifier of the supplier;
(e) year of manufacture;
(f) rated capacity or volume;
(g) rated power output or capacity;
(h) microwave function efficiency;
(i) energy efficiency star rating of appliance as determined in accordance with the Second Schedule (energy efficiency star rating);
(j) energy consumption per cooking cycle (Wh/cycle);
(k) power consumption in Standby mode (W);
(l) product registration number issued by the Commission; and
(m) airborne acoustical noise emission level and class.

3. Printing

(1) Figure 2 defines aspects of the label.
(2) The dimensions of the labels shall be in accordance with the illustration in Figure 2 and shall be placed on the front of the door or on the lid of the regulated appliance.
(3) Colours are to be used on the label in accordance with the following:
   (a) all text shall be in black or gold as illustrated;
   (b) the background shall be gold;
   (c) all stars shall be in black; and
   (d) the border line shall be in black.
4. Dimensions of Labels
The dimensions of the labels are shown in Figure 2.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

FOURTH SCHEDULE
(regulations 3(1)(b)(iv), 3(2), 5, 10(2)(b) and (c), 11(1)(c), 16(4)(b), (c),(d) and (e), 18(1), 18(2)(b), 22(b), 24(2)(c), 25(b)(iii) and 26(2)(a))

PART ONE
(regulations 10(2)(b), 11(1)(c), 18(1), 18(2)(b), and 22(b))

PRODUCT INFORMATION SHEET

The information in the Product Information Sheet of a household microwave oven appliance shall in addition to all information listed as “Notes to Figure 1” under the Third Schedule, include the following information specified in Table 4.1 – Sample Product Information Sheet – and shall be included in the product brochure or other literature provided with the product:

Table 4.1. Sample Product Information Sheet

<table>
<thead>
<tr>
<th>Description</th>
<th>Symbol/type</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type / Categories of microwave oven</td>
<td>(As provided under Part 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usable cavity dimensions/calculated cavity volume</td>
<td>( h, w, d_x, d_z ) (height, width depth, depth with door open)</td>
<td>([x.x])</td>
<td>Mm</td>
</tr>
<tr>
<td>Rated supply voltage</td>
<td>( V )</td>
<td>([x.x])</td>
<td>volts</td>
</tr>
<tr>
<td>Rated supply frequency</td>
<td>( F )</td>
<td>([x.x])</td>
<td>_Hz</td>
</tr>
<tr>
<td>Rated capacity/volume</td>
<td>Xxxxxx</td>
<td>([x.x])</td>
<td>_L</td>
</tr>
<tr>
<td>Rated power output/capacity</td>
<td>( P )</td>
<td>([x.x])</td>
<td>_W</td>
</tr>
</tbody>
</table>
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

<table>
<thead>
<tr>
<th>Microwave function efficiency</th>
<th>h</th>
<th>( [x.x] )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standby power consumption</td>
<td>( P_{SB} )</td>
<td>( [x.x] )</td>
<td>W</td>
</tr>
<tr>
<td>Energy consumption per cooking cycle</td>
<td>( W_{\text{final}} )</td>
<td>( [x.x] )</td>
<td>Wh</td>
</tr>
<tr>
<td>Microwave sound power level</td>
<td>( L_{WA} )</td>
<td>( [x] )</td>
<td>dB(A)</td>
</tr>
</tbody>
</table>

Measurement standard for service value

[State here the reference to measurement standard(s) used]

Details of test carried out or results

Test reports to be provided

Contact details for obtaining more information

Name and address of the manufacturer or of authorised representative of the manufacturer.

PART TWO
(regulation 5)

The type and categories of a microwave oven under these Regulations are shown in Table 4.2

Table 4.2: Appliance Type/Category Description

<table>
<thead>
<tr>
<th>Type of Microwave by:</th>
<th>Description of Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Household □ Commercial □</td>
</tr>
<tr>
<td>Physical Design</td>
<td>Conventional □ Combination □</td>
</tr>
<tr>
<td>Functional design</td>
<td>Forced air □ Steam □ Hot steam □</td>
</tr>
<tr>
<td>Additional Features</td>
<td>With Grill □ Without Grill □</td>
</tr>
</tbody>
</table>
PART THREE
(regulation 10(2)(c))

Technical documentation
1. The technical documentation referred to in regulation 10 shall include the following elements:
   (a) ambient temperature;
   (b) test voltage in V and frequency in Hz;
   (c) total harmonic distortion of the electricity supply system;
   (d) the information as set out in Part One;
   (e) the information as set out in Part Two; and
   (f) identification and signature of the person empowered to bind the supplier.

2. If a parameter is not applicable, the values of that parameter shall be ‘-’. 

3. Suppliers may include additional information at the end of the above list.

PART FOUR
(regulation 24(2)(c))

Mail Order and other Distance Selling
Information to be provided in the cases where end-users cannot be expected to see the product displayed

1. A supplier shall ensure that
   (a) microwave ovens offered for sale, hire or hire-purchase, where the end-user cannot be expected to see the appliance displayed, are marketed with the Product Information Sheet;
   (b) mail order catalogues and other communication shall contain at least, the following information, given in the order specified below:
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND
LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

(i) the microwave oven function efficiency;
(ii) the energy efficiency star rating of the model as
defined in the Second Schedule;
(iii) the energy consumption per cooking cycle in
accordance with the Second Schedule; and
(iv) the power consumption in standby mode as defined
in the Second Schedule;
(c) an advertisement for a specific microwave oven model
contains the energy efficiency rating, if the advertisement
discloses energy-related or price information and shall
appear in the order described in paragraph (b); and
(d) a technical promotional material concerning a specific
microwave oven model, which describes the specific technical
parameters of the model, includes the energy efficiency
rating of that model.

2. The size and font in which all the information referred in this part
is printed or shown shall be legible.

PART FIVE
(regulations 3(2), 16 (4)(c),(d) and (e) and 25 (b)(iii))

Information to be provided in audio advertisements, visual
advertisements, in technical promotional material, in distance selling,
except distance selling on the internet

1. In an audio advertisement, for the purposes of ensuring conformity
with the requirements laid down in subregulation (2) of regulation 3,
the energy efficiency class of the model of appliance being advertised
and the range of energy efficiency classes available on the market shall
be stated in the advertisement.

2. In a visual advertisement, for the purposes of ensuring conformity
with the requirements laid down in subregulation (2) of regulation 3,
the energy efficiency class and the range of energy efficiency classes
available on the label shall be shown as set out in paragraph 5 of this
Part.
3. In technical promotional material, for the purposes of ensuring conformity with the requirements laid down in subregulation (2) of regulation 3, the energy efficiency class and the range of energy efficiency classes available on the label shall be shown as set out in paragraph 5 of this Part.

4. Any paper-based distance selling shall show the energy efficiency class and the range of energy efficiency classes available on the label as set out in paragraph 5 of this Part.

5. The energy efficiency class and the range of energy efficiency classes shall be shown, as indicated in Figure 1, with
   (a) an arrow, containing the letter of the energy efficiency class in hundred per cent white, Calibri Bold and in a font size at least equivalent to that of the price, when the price is shown;
   (b) the colour of the box shall be gold;
   (c) the range of available energy efficiency classes in hundred per cent black; and
   (d) the size shall be such that the box is clearly visible and legible.

6. The number embedded in the black star corresponding with the energy efficiency class of the appliance star shall be white and positioned in the center of the black star in the box, with a border of 0.5 pt in black placed around the box and the star showing the energy efficiency star rating class.

7. By way of derogation, if the visual advertisement, technical promotional material or paper-based distance selling is printed in monochrome, the box can be in monochrome in that visual advertisement, technical promotional material or paper-based distance selling.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

Figure 1: Coloured or monochrome Star Rating, with range of energy efficiency classes indicated

8. Telemarketing-based distance selling shall specifically inform the customer of the energy efficiency class of the product and of the range of energy efficiency classes available on the label, and that the customer can access the full label and the Product Information Sheet through a free access website, the public part of the Appliance Energy Efficiency Register of the Commission or by requesting a printed copy.

9. For all the situations mentioned in paragraphs 2 to 4 and paragraph 8, it shall be possible for the customer to obtain, on request, a printed copy of the label and the Product Information Sheet.

PART SIX
(regulation 26 (2)(a))

Information to be provided in the case of distance selling through the Internet

1. The appropriate label made available by suppliers in accordance with the Third Schedule shall be shown on the display mechanism in proximity to the price of the product.

2. The size shall be such that the label is clearly visible and legible and shall be proportionate to the size specified in the Third Schedule.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

3. The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down in paragraph 5 of this Part.

4. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.

5. The image used for accessing the label in the case of nested display, as indicated in Figure 2, shall
   (a) be a box in gold colour with a black star and an embedded number corresponding to the energy efficiency star rating of the product on the label;
   (b) indicate the energy efficiency star rating of the product in the box in hundred per cent black, Calibri Bold and in a font size equivalent to that of the price;
   (c) have the range of available energy efficiency classes in hundred per cent black; and
   (d) have one of the following two formats, and the size of the image shall be such that the box is clearly visible and legible. The number showing the energy efficiency star rating shall be positioned in the centre of the box, with a visible border in hundred per cent black placed around the box and the number of the energy efficiency star rating:

![Image of star rating]

Figure 2: Coloured Star Rating, with range of energy efficiency classes indicated
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

6. In the case of a nested display, the sequence of display of the label shall be as follows:
   (a) the image referred to in paragraph 5 of this Part shall be shown on the display mechanism in proximity to the price of the product;
   (b) the image shall link to the label set out in the Third Schedule;
   (c) the label shall be displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
   (d) the label shall be displayed by pop up, new tab, new page or inset screen display;
   (e) for magnification of the label on tactile screens, the device conventions for tactile magnification shall apply;
   (f) the label shall cease to be displayed by means of a close option or other standard closing mechanism; and
   (g) the alternative text for the graphic, to be displayed on failure to display the label, shall be the energy efficiency class of the product in a font size equivalent to that of the price.

7. The electronic Product Information Sheet made available by suppliers in accordance with subregulation (2) of regulation 26 shall be shown on the display mechanism in proximity to the price of the product. The size shall be such that the Product Information Sheet is clearly visible and legible. The Product Information Sheet may be displayed using a nested display or by referring to the product database, in which case the link used for accessing the Product Information Sheet shall clearly and legibly indicate ‘Product Information Sheet’. If a nested display is used, the Product Information Sheet shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

FIFTH SCHEDULE
(regulation 33(2))

VERIFICATION PROCEDURE FOR MARKET SURVEILLANCE

Table 5.1: Verification tolerances for measured parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Verification tolerances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power output (W)</td>
<td></td>
</tr>
<tr>
<td>Microwave Function efficiency (%)</td>
<td>The determined value ($^1$) shall not exceed the declared value by more than seven percent</td>
</tr>
<tr>
<td>Energy consumption per cooking cycle (Wh)</td>
<td></td>
</tr>
<tr>
<td>Standby mode power consumption (Watts), as applicable</td>
<td>The determined value ($^1$) shall not exceed the declared value by more than 0.10 Watt if the declared value is 1.00 W or less, or by more than ten per cent if the declared value is more than 1.00 W</td>
</tr>
<tr>
<td>Rated Capacity or volume</td>
<td>Cubic meter, (m$^3$)</td>
</tr>
</tbody>
</table>

Verification procedure for market surveillance

1. The verification tolerances set out in this Schedule relate only to the verification of the declared parameters by the Commission and the Standards Authority and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation.

2. The values and classes on the label or in the Product Information Sheet shall not be more favourable for the supplier than the values reported in the technical documentation.
ENERGY COMMISSION (ENERGY EFFICIENCY STANDARDS AND LABELLING) (MICROWAVE OVENS) REGULATIONS, 2022

3. Where a model has been designed to be able to detect the model is being tested by recognising the test conditions or test cycle, and to react specifically by automatically altering the performance during the test with the objective of reaching a more favourable level for any of the parameters specified in these Regulations or included in the technical documentation or included in any of the documentation provided, the model and all equivalent models shall be considered not compliant.

4. When verifying the compliance of a product model with the requirements laid down in these Regulations, the Commission and the Standards Authority shall apply the following procedure:
   (a) The Commission and the Standards Authority shall verify one single unit of the model; and
   (b) The model shall be considered to comply with the applicable requirements if:
      (i) the values given in the technical documentation pursuant to the Second Schedule or the declared values, and, where applicable, the values used to calculate these values, are not more favourable for the supplier than the corresponding values given in the test reports;

      (ii) the values published on the label and in the Product Information Sheet are not more favourable for the supplier than the declared values, and the indicated energy efficiency class and the airborne acoustical noise emission class are not more favourable for the supplier than the class determined by the declared values; and

      (iii) when the Commission and the Standards Authority test the unit of the model, the determined values, that is the values of the relevant parameters as
measured in testing and the values calculated from these measurements, comply with the respective verification tolerances as given in Table 5.1.

5. If the results referred to in subparagraphs (a) and (b) of paragraph 4 are not achieved, the model and all equivalent models shall be considered not to comply with these Regulations.

6. If the result referred to in subsubparagraph (iii) of subparagraph (b) of paragraph 4 is not achieved, the Commission and the Standards Authority shall select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more equivalent models.

7. The model shall be considered to comply with the applicable requirements if, for the three units, the arithmetic mean of the determined values complies with the respective tolerances given in Table 5.1.

8. If the result referred to in paragraph 5 is not achieved, the model and all equivalent models shall be considered not to comply with these Regulations.

9. The Commission and the Standards Authority shall provide all relevant information to all the enforcement authorities and the public without delay once a decision has been taken on the non-compliance of the model in accordance with paragraphs 3 and 6.

10. The Commission and the Standards Authority shall use the measurement and calculation methods set out in the Second Schedule.

11. The Commission and the Standards Authority shall only apply the verification tolerances set out in Table 5.1 and shall only use the procedure set out in paragraphs 1 to 7 for the requirements referred to in this Schedule. For the parameters in Table 5.1, no other tolerances, such as those set out in the Standards or in any other measurement method, shall be applied.
In the case of three additional units tested as prescribed in paragraph 4, the determined value means the arithmetic mean of the values determined for these three additional units.

HON. DR. MATTHEW OPOKU PREMPEH
Minister responsible for Energy

Date of Gazette notification: 5th June, 2022.

Entry into force: 2nd November, 2022.