

هيئة التقييس لدول مجلس التعاون دول الخليج العربية GCC STANDARDIZATION ORGANIZATION (GSO)

مشروع اولي

Final Draft Standard FDS

إعداد اللجنة الفنية الخليجية رقم ٠٥ TC

Prepared by GSO Technical Committee No. TC ٠٥

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خميرة الخباز والخميرة المجففة غير النشطة

**BAKER'S YEAST
AND INACTIVE DRIED YEAST**

ICS: ٦٧.٠٢٠

This document is a draft Gulf Technical Regulation circulated for comments. It is, therefore, subject to alteration and modification and may not be referred to as a Gulf Technical Regulation until approved by GSO.

هذه الوثيقة مشروع لائحة فنية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كلائحة فنية خليجية إلا بعد اعتمادها من الهيئة.

تقديم

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية هيئة إقليمية تضم في عضويتها أجهزة التقييس الوطنية في الدول الأعضاء، ومن مهام الهيئة إعداد المواصفات القياسية واللوائح الفنية الخليجية بواسطة لجان فنية متخصصة.

قرر/قررت مجلس الإدارة لهيئة التقييس لدول مجلس التعاون لدول الخليج العربية في اجتماعه رقم (....) الذي عقد بتاريخ...../...../..... هـ، الموافق/...../.....م تحديث اللائحة الفنية الخليجية رقم GSO ١٣٠٨ (خميرة الخبيز والخميرة المجففة غير النشطة) التي تم دراستها وإعدادها ضمن برنامج عمل اللجنة الفنية الخليجية رقم TC ٠٥ "اللجنة الفنية الخليجية للمواصفات الغذائية والزراعية" المدرجة في خطة المملكة العربية السعودية.

BAKER'S YEAST AND INACTIVE DRIED YEAST

١- SCOPE AND FIELD OF APPLICATION

This standard is concerned with baker's yeast and inactive dried yeast.

٢- SUPPLEMENTARY REFERENCES

- ٢,١ GSO ٩ "Labelling of Prepackaged Foods".
- ٢,٢ GSO ٢٦٤ "Methods of Test for Baker's Yeast and Inactive Dried Yeast".
- ٢,٣ GSO ٨٣٩ "Food Packages - Part ١: General Requirements".
- ٢,٤ GSO ١٠١٦ "Microbiological Criteria for Foodstuffs".
- ٢,٥ GSO ١٩٣ "Contaminants and Toxins in Food and Feed".
- ٢,٦ GSO ٢٥٠٠ "Additives Permitted for Use in Food Stuffs".
- ٢,٧ GSO CAC/GL ٥٠ "General Guideline on Sampling".
- ٢,٨ GSO ١٥٠-٢ "Expiration Dates for Food Products - Part ٢: Voluntary Expiration Dates".
- ٢,٩ GSO ٢٠٥٥-١ "Halal food - Part ١: General Requirements".

٣- DEFINITIONS

- ٣,١ Yeast: A microscopic unicellular fungi that proliferates by a way of cell-division, without air it is capable of fermenting a sugar solution producing ethanol and carbon dioxide producing new cells when exposed to air. It is divided into:
 - ٣,١,١ Baker's yeast: Fresh living cells suitable for fermenting dough made of genus *Saccharomyces cerevisie*. It comprises fresh compressed yeast and active dried yeast.
 - ٣,١,١,١ Fresh yeast: Baker's yeast of which its water content no more than ٧٥% by the weight. It generally comes in form:
 - Liquid yeast.
 - Crumbled (compressed) yeast.
 - Blocks (compressed) yeast.
 - ٣,١,١,٢ Active dried yeast: Baker's yeast of which its water content reduced by controlled dehydration to ١٠% moisture content by weight at most. It comes in the form of powder, granules, tables or small rods. It is divided into:
 - Active dried yeast.
 - Instant dry yeast.

٣,١,٢ Inactive dried yeast: A yeast made usually of genus *Saccharomyces cerevisia*, *Torulopsis utilis*, *kluyveromyces lactis*, and *Candida utilis*, resulting from killing its cells and dehydrated generally by spray processes. It loses its power to proliferate and cause fermentation. It shall be used as food yeast for human feeding or feed yeast for animal consumption. It comes in the form of powder, flakes or tablets.

٤- CHARACTERISTICS

٤,١ Baker's yeast

The following requirements shall be met in all types of baker's yeast:

٤,١,١ It shall be free from foreign matters and impurities.

٤,١,٢ It shall have creamy white yellowish colour and free from brown spots.

٤,١,٣ It shall not be mixed with other genera of yeast.

٤,١,٤ It shall keep its viability and fermenting power.

٤,١,٥ It shall have the characteristic odour and free from foreign odours.

٤,١,٦ It shall be free from pathogenic micro-organisms or any substances originating from it.

٤,١,٧ The standard in item ٢,٥ should be observed, and contaminating toxic metallic elements in baker's yeast (calculated on dry weight basis) shall be no more than the following:

Arsenic : ٥ ppm

Mercury : ٠,١ ppm

Lead : ٥ ppm

Zinc : ٢٠٠ ppm

Copper : ٥٠ ppm

٤,١,٨ The standard in item ٢,٦ should be observed, and the following materials may be added in amounts convenient to good manufacturing processes, and whose properties comply with the Gulf standards:

- Potable water
- Syrups and molasses of beat or cane sugar
- Biological nutrients (such as autolysed yeast)
- Edible vegetable oils
- Edible salt (sodium chloride)
- Some vitamins for fortification such as riboflavin and niacin (nicotinic acid).
- Malt extract

- Edible starch

٤,٢ **Fresh yeast**

Besides what mentioned in item ٤,١, the following requirements shall be met in fresh compressed yeast:

٤,٢,١ It shall be free from any visible or internal deterioration.

٤,٢,٢ Blocks shall crack on exerting slight pressure on them.

٤,٢,٣ Dry matter range shall not exceed:

Type of product	Dry matter range (%)
Liquid yeast	١٤ – ٢٩
Block (compressed) yeast	٢٦ – ٣٥
Granulated (compressed) yeast	٣١ – ٣٧

٤,٢,٤ Crude Nitrogen content shall not be less than ٦,٥% (on dry weight basis).

٤,٢,٥ Ash content shall not exceed ٨% (calculated on dry weight basis).

٤,٢,٦ The pH of yeast is normally around pH=٥ (±٢).

٤,٢,٧ The microbiological limits in the product must not exceed what is stated in the Gulf standard mentioned in item ٢,٤, and must be as follows:

- *Coliforms* : The content is below ١٠٠٠ CFU/g.
- *E.coli* : The content is below ١٠٠ CFU/g.
- *Salmonella* : Absence of *Salmonella* in a sample of ٢٥g.
- *Listeria monocytogenes* : The content is below ١٠٠ CFU/g.
- *Staphylococcus aureus* : The content is below ١٠ CFU/g.

٤,٢,٨ Added starch shall not be more than ١% by weight of fresh compressed yeast weight.

٤,٣ **Dried active yeast**

Besides what is mentioned in item ٤,١, the following requirements shall be met in dried active yeast:

٤,٣,١ Dry matter and density range shall not exceed:

Type of product	Dry matter range (%)	Density
Active dry yeast	٩٢ – ٩٦	٠,٧٥ – ٠,٩٥
Instant yeast	٩٣ – ٩٧	٠,٥٥ – ٠,٨٠

- ٤,٣,٢ Ash content shall be no more than ٨% (on dry weight basis).
- ٤,٣,٣ Crude Nitrogen content shall not be less than ٦% (on dry weight basis).
- ٤,٣,٤ The pH of yeast is normally around pH=٦ (±٢).
- ٤,٣,٥ The microbiological limits in the product must not exceed what is stated in the Gulf standard mentioned in item ٢,٤, and must be as follows:

- *Coliforms* : The content is below ١٠٠٠ CFU/g.
- *E.coli* : The content is below ١٠ CFU/g.
- *Salmonella* : Absence of *Salmonella* in a sample of ٢٥g.
- *Listeria monocytogenes* : The content is below ١٠٠ CFU/g.
- *Staphylococcus aureus* : The content is below ١٠ CFU/g.

- ٤,٣,٦ Added starch shall not exceed ٢% by weight of dry active yeast.

٤,٤ **Inactive dried yeast**

The following requirements shall be met in food yeast (for human consumption):

- ٤,٤,١ Moisture content shall not be more than ٨%.
- ٤,٤,٢ Crude Nitrogen content shall not be less than ٦% (on dry weight basis).
- ٤,٤,٣ Crude fat content shall not be less than ٣%.
- ٤,٤,٤ Crude fibre content shall be no more than ٢%.
- ٤,٤,٥ Ash content shall not be more than ٨% (calculated on dry weight basis).
- ٤,٤,٦ Thiamine content shall not be less than ١ mg/١٠٠ g.
- ٤,٤,٧ Riboflavin content shall not be less than ٤ mg/١٠٠ mg.
- ٤,٤,٨ Nicotinic acid content shall not be less than ٣٥ mg/١٠٠ g.
- ٤,٤,٩ It shall comply with the following microbiological requirements:
- *Escherichia coli* : Absence in ٠,١ g of the product.

- Total count of revivable bacteria : Less than $(1 \times 10)^6$ in 1 g calculated on the dry matter.
- Total count in revivable moulds : Less than 10^6 in 1 g calculated on the dry matter.
- *Salmonella* : Absence of *Salmonella* in a sample of 25g.

5- SAMPLING

The standard in item 2.2 should be observed, and the following requirements shall be met during sampling:

- 5.1 Samples shall be taken in a protected place not exposed to damp air or dust.
- 5.2 The sampling instrument shall be clean and dry when used. When taking samples for microbiological examination, the sampling instrument shall be sterile.
- 5.3 Precautions shall be taken to protect the samples, the sampling instrument and the containers for samples from adventitious contamination.
- 5.4 The samples shall be placed in clean and dry glass containers. The sample containers shall be of such a size that they are almost completely filled by the sample. The sample containers shall be sterile when they are used for storing samples for microbiological examination.
- 5.5 Containers shall be sealed air-tight after filling and marked with full details of sample, batch number, name of the manufacturer and other important particulars of the consignment.
- 5.6 Samples shall be stored in a temperature that does not vary unduly from storage temperature of the product.

6- TESTS

All tests shall be carried out on the representative sample taken according to item 5 to determine its conformity to all items of this standard, according to GSO standard mentioned in Item (2.2).

7- PACKAGING, TRANSPORTATION AND STORAGE

- 7.1 Packaging
 - 7.1.1 The product shall be packed in hygienic, clean, sound and suitable containers, so as to avoid any change in its properties, shall comply with GSO standard mentioned in Item (2.3).
 - 7.1.2 In case of packing in cans for packaging, the packs shall be of that type which can be easily sterilized and hermetically sealed.
- 7.2 Transportation

It shall be in such a way so as to protect the product from damage and contamination.

٧,٣

Storage

٧,٣,١

Fresh compressed yeast and dried active yeast shall be stored at a temperature no more than ٥°C and ٢٥°C respectively.

٧,٣,٢

Stores shall be at a safe distance away from sources of heat, moisture and contamination.

٨-

LABELLING

Without prejudice to provisions of GSO standard mentioned in Item (٢,١), the following information shall be declared on the label of the container:

٨,١

Name of the product (Baker's yeast) or (Inactive dried yeast), mentioning the type as stated in item (٣,١).

٨,٢

Production date and expiry date, according to the requirements of Gulf standard as stated in item (٢,٨).

٨,٣

Produced from genetically modified organism (if found).

٨,٤

The product storage temperature.

٨,٣

Method of use.

٨,٤

Protein percent in inactive dried yeast.