

ICS 67.100.99

QB

**LIGHT INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

QB/T 5805-2023

**Milk (Whey) protein powder with milk fat globule membranes
(English Translation)**

Issued on: July 28, 2023

Implemented on: February 1, 2024

Issued by: Ministry of Industry and Information Technology of PRC

Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Terms and definitions...	5
4 Requirements...	5
5 Test methods...	6
6 Inspection rules...	7
7 Marking, packaging, transportation, storage...	8
Appendix A (Normative) Detection methods for phospholipids and sphingomyelin	9
Appendix B (Normative) Detection methods for gangliosides...	15

1 Scope

This document specifies the raw material, sensory, physicochemical requirements for milk (Whey) protein powder with milk fat globule membranes; describes the corresponding test methods; stipulates the inspection rules, marking, packaging, transportation, storage requirements. It also provides a classification for ease of technical specification.

This document applies to the production, inspection, sale of milk (Whey) protein powder with milk fat globule membranes used as a food ingredient.

2 Normative references

The following documents, through normative references herein, constitute essential provisions of this document. For dated references, only the edition cited applies; for undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 191 Packaging - Pictorial marking for handling of goods

GB 2761 National food safety standard - Limits of mycotoxins in food

GB 2762 National food safety standard - Limits of contaminants in food

GB 5009.3 National food safety standard - Determination of moisture in food

GB 5009.4 National food safety standard - Determination of ash in food

GB 5009.5 National food safety standard - Determination of protein in food

GB/T 6682 Water for analytical laboratory use - Specification and test methods

GB 7718 National food safety standard - General rules for labelling of prepackaged foods

GB 11674 National food safety standard - Whey powder and whey protein powder

GB 19301 National food safety standard - Raw milk

GB 19646 National food safety standard - Cream, butter and anhydrous butter

GB 28050 National food safety standard - General rules for nutrition labelling of prepackaged foods

GB 29921 National food safety standard - Limits of pathogenic bacteria in prepackaged foods

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Milk fat globule membranes

A complex three-layered phospholipid membrane, which is composed of polar lipids, cholesterol, proteins that surrounds the surface of milk fat globules.

3.2

Whey protein powder with milk fat globule membranes

A powdered product containing milk fat globule membranes (3.1), which is produced from raw milk or whey through processes such as separation, concentration, drying.

3.3

Milk protein powder with milk fat globule membranes

A powdered product containing milk fat globule membranes (3.1), which is produced from raw milk or light cream through processes such as separation, concentration, drying.

4.1 Raw material requirements

4.1.1

Raw milk. It shall comply with the provisions of GB 19301.

4.1.2

Whey. It shall comply with the provisions of GB 11674.

4.1.3

Light cream. It shall comply with the provisions of GB 19646.

4.2 Sensory requirements

It shall comply with the requirements in Table 1.

4.3 Physicochemical indicators

It shall comply with the requirements in Table 2.

4.4 Safety requirements

4.4.1

The limits for mycotoxins shall comply with the provisions of GB 2761.

4.4.2

The limits for contaminants shall comply with the provisions of GB 2762.

4.4.3

The limits for microorganisms shall comply with the provisions of GB 29921.

5.1 Sensory evaluation

Take an appropriate amount of specimen; place it in a clean, dry white porcelain dish; observe its color and appearance under natural light; smell its odor; rinse your mouth with warm water; taste it.

5.2 Protein

Determine it according to the method described in GB 5009.5.

5.3 Phospholipids

Detect it according to the method described in Appendix A.

5.4 Sphingomyelin

Detect it according to the method described in Appendix A.

5.5 Gangliosides

Detect it according to the method described in Appendix B.

5.6 Moisture

Determine it according to the method described in GB 5009.3.

5.7 Ash

Determine it according to the method described in GB 5009.4.

6.1 Group-batching

Products of the same variety produced from the same batch of raw materials constitute one batch.

6.2 Sampling

Products are sampled by batch.

For pre-packaged products, 5 packages are sampled. For bulk packaging products weighing 10 kg or more, 500 g portions of each of the five randomly selected packages can be used as samples, with a total sample size of no less than 2500 g.

6.3 Exit-factory inspection

Before leaving the factory, each batch of products shall be tested by the manufacturer's quality inspection department. Testing items shall be carried out according to relevant requirements. Only products that pass the tests can leave the factory.

6.4 Judgment rules

6.4.1

If all inspection indicators are qualified, the batch of products is judged as qualified.

6.4.2

If any inspection result is unqualified, the sample size can be doubled from the batch of products for retesting the unqualified items. If all retest results are qualified, the batch of products is judged as qualified. If even one item fails the retest, the batch of products is judged as unqualified. Retesting is not allowed, if the microbial limit is unqualified.

.....