

## Skim Milk, Agglomerated NFDM (NCM0206)

### Intended Use

Skim Milk, Agglomerated NFDM is dehydrated skim milk for use in preparing microbiological culture media in a laboratory setting. Skim Milk, Agglomerated NFDM is not intended for use in the diagnosis of disease or other conditions in humans.

### Description

Skim Milk, Agglomerated NFDM is soluble, spray-dried skim milk. When prepared in a 10% solution, it is equivalent to fresh skim milk. Skim Milk is added to enhance growth of *Mycobacterium tuberculosis* and *Corynebacterium diphtheria* in culture media. Skim Milk, Agglomerated NFDM is used for differentiating organisms based on coagulation and proteolysis of casein in foods and dairy products. Indicators of pH, Litmus and Bromocresol Purple, are used with Skim Milk, Agglomerated NFDM to determine acid production. Methylene Blue and Resazurin may be used with Skim Milk, Agglomerated NFDM as oxidation-reduction indicators.

### Precaution

Refer to SDS

### Chemical Characteristics Specification

#### Specification

Butterfat  
Moisture

#### Expected Results

≤ 1.5%  
≤ 4.5%

#### Microbial Load

Standard Plate Count  
Coliform  
*Salmonella*

≤ 30,000 cfu/g  
≤ 10 cfu/g  
Negative

### Quality Control Specifications

**Expected Cultural Response:** Litmus Milk was prepared with a test lot of Skim Milk, Agglomerated NFDM and inoculated with the test organisms listed below. Cultures were incubated aerobically at 35 ± 2°C and examined for growth after 2 – 7 days incubation.

Microorganism	Approx. Inoculum (CFU)	Growth	Reactions
<i>Bacillus subtilis</i> ATCC® 9372	10 - 300	Growth	Digested curd
<i>Clostridium perfringens</i> ATCC® 13124	10 - 300	Growth	Stormy fermentation, acid
<i>Escherichia coli</i> ATCC® 25922	10 - 300	Growth	Solid curd, acid
<i>Salmonella typhi</i> ATCC® 19430	10 - 300	Growth	Reduction

The organisms listed are the minimum that should be used for quality control testing.

### Test Procedure

Refer to appropriate references for specific procedures using Skim Milk.

### Results

Refer to appropriate references for test results.

## **Expiration**

Refer to expiration date stamped on the container. Product should be discarded if not free flowing, or if appearance has changed from the original color. Expiry applies to product in its intact container when stored as directed.

## **Limitation of the Procedure**

Skim Milk supports the growth of many microorganisms. Perform microscopic examination and other biochemical tests to identify isolates to the genus and species level.

## **Storage**

Store product at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

## **References**

1. Lee, J. S., and A. A. Kraft. 2015. Proteolytic microorganisms, p. 193-198. *In* Vanderzant, C. and D. F. Splittstoesser (eds.). Compendium of methods for the microbiological examination of foods, 4<sup>th</sup> ed. American Public Health Association, Washington, D.C.
2. Frank, J. F., G. L. Christen, and L. B. Bullerman. 2004. Tests for groups of microorganisms. *In* Marshall, R. T. (ed.). Standard methods for the microbiological examination of dairy products, 17<sup>th</sup> ed. American Public Health Association, Washington, D.C.