



Anhydrous Milk Fat Standard

Product Definition

Anhydrous Milk Fat (AMF) is the product obtained from sweet cream or from butter, where the fat content is increased to nearly 100% by the almost total removal of water and solids non-fat using one or more physical separation processes. Anhydrous Milk Fat complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

Composition

Parameter	Units of Measure	Limits
Milkfat	% w/w, as-is basis	99.8 minimum
Total moisture	% w/w	0.1 maximum
Free fatty acids	% w/w, as oleic acid	0.3 maximum
Other constituents including salt	% w/w	0.1 maximum
Salt	% w/w	0.05 maximum

Other Characteristics

Physico-chemical Properties		
Parameter	Units of Measure	Limits
Color	visual	uniform, characteristic golden "butter" color
Flavor and odor	sensory	clean bland characteristic flavor and odor, free from rancid, oxidized, or other objectionable flavors and odors
Physical appearance	visual	smooth and fine granules to liquid, depending on temperature; transparent in liquid form
Copper (Cu)	mg/kg	0.05 maximum
Iron (Fe)	mg/kg	0.2 maximum

Microbiological Analysis		
Parameter	Units of Measure	Limits
Standard plate count	CFU/g	5,000 maximum
Yeast and mold	CFU/g	10 maximum

Microbiological Analysis		
Parameter	Units of Measure	Limits
<i>Escherichia coli</i>	CFU/10g	3 maximum
Coliforms ¹	CFU/g	10 maximum
<i>Enterobacteriaceae</i> ¹	CFU/g	10 maximum
<i>Listeria</i>	CFU/25g	not detected
<i>Salmonella</i>	CFU/25g	not detected
<i>Staphylococcus</i> (coagulase positive)	CFU/g	not detected

1 - The food industry is trending toward *Enterobacteriaceae* (“EB”) as the most commonly used category of indicator organisms for gauging general process sanitation. For compliance to this Standard, either coliforms and/or EB shall be utilized, at the discretion of the manufacturer.

Methods of Analysis

Parameter	Reference Method
Milkfat	AOAC 989.05
Moisture	AOAC 925.45
Free fatty acids	AOCS
Metals	FCC
Microbiological tests	FDA-BAM

Permissible Additives

Anhydrous Milk Fat may be fortified with any antioxidant that is approved by Codex Alimentarius for use in Food Category No. 02.1.1 *Butter oil, anhydrous milkfat, ghee* as shown in Table Two of CXS 192-1995, provided that the antioxidant is also approved for use in food by the U.S. Food and Drug Administration. Any antioxidant used shall be food grade and shall be used in accordance with U.S. current Good Manufacturing Practices and in accordance with its GRAS status, where applicable.

Product Labeling

Recommended identification: Anhydrous milk fat

Typical Applications

Anhydrous Milk Fat is suitable for use in any application where butter might otherwise be used.

Typical Storage & Shipping

Product should be stored, shipped, and utilized according to the manufacturer’s established recommendations. As guidance, product should be stored and shipped in a cool, dry environment

with temperature below 80°F and relative humidity below 65%. Stocks should be rotated and should be utilized in accordance with the manufacturer's established date of expiration or retest.

Typical Packaging

Drums, cartons, corrugated fiber totes with polyolefin inner liner, or other suitable closed containers are typical. Containers may be flushed with an inert gas (e.g., nitrogen) before, during, and/or after filling, which serves the purpose to displace oxygen. Carbon dioxide may not be used for this purpose. Any gas used shall be food grade and shall be used in accordance with U.S. current Good Manufacturing Practices and in accordance with its GRAS status, where applicable.

External References

7 CFR §58.347 Butteroil or anhydrous milkfat
Codex Standard for Milkfat Products STAN 280-1973
CXS 192-1995 Table Two

Revision History

Version	Effective Date	Notes
1.0	10/10/2024	First officially approved version of this new ingredient standard.